TABLE OF CONTENTS

3  About the Journal

4  Editorial Team

5  From IACBE

7  Preparing Business Students to Thrive in the Future Economy: The Case for Developing Course Learning Outcomes Aligned with Newly Updated In-Demand Job Skills  
   Kristen Migliano & Harika Rao

27  Assistive Technology: Current and Future Trends in Business Education  
   Susan Kowalewski & Humberto Hernandez Ariza

43  Creating and Maintaining Effective, Relevant, and Interactive Discussion Boards to Enhance Engagement of Students and Instructors  
   James Dovel, Joshua Valk, Todd Wente, Jaime Davis, & Michael Twigg

69  Conscious-Based Management Education for a Flourishing Business Ecosystem  
   Anil K. Maheshwari

82  A Case Study: The Struggle of Professional Golf to Attract Millennials  
   Robin M. Pietryk
ABOUT:

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FROM IACBE

In memory of Dr. Olin Oedekoven—an educator, visionary, and leader. The IACBE family dedicates this issue to our good friend and partner. By developing values-based leaders and improving the quality of higher education, Dr. Oedekoven’s positive impact on the world will continue to grow well beyond his lifetime.
PREPARING BUSINESS STUDENTS TO THRIVE IN THE FUTURE ECONOMY: THE CASE FOR DEVELOPING COURSE LEARNING OUTCOMES ALIGNED WITH NEWLY UPDATED IN-DEMAND JOB SKILLS

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ABSTRACT

The study focuses on the dynamic employment market and empowering business school graduates with job skills by improving curricula practices. Studies in recent years have focused on employability skills and trying to address the skills gap. The scope of the nonacademic skills set is broad, with each study defining a specific purpose. The authors introduce and analyze considerations for bridging the education-employment preparation gap. The research is a case study on addressing three desired employability skills with curricula and programming established in the College of Business and Management at Lynn University.
INTRODUCTION

The concept of education for this study is defined as understanding, practicing, and sharing knowledge to better a situation or problem. Technology has amplified the scope of education and accelerated change. Education is a valuable toolkit to build and progress one's career. The concept of education is centered around customization and boundless learning to integrate employability skills for a graduate to enter the workforce.

Unemployment, for this study, is defined as a situation where graduate students are unable to get a job due to the mismatch between the demands of the market in terms of skills or experience. Alternatively, markets do not create new opportunities for new graduates for several reasons, including the challenges to onboarding or the lack of skillsets needed for a company to progress economically.

The relationship between education and employment is unique and vital for a country to progress culturally, politically, socially, and economically. Education opens doors for people to earn a job, and employment adds value to the country's economy. While jobs are always available for various levels, gainful employment is essential for sustainable living. There is a growing need to empower graduates with employability skills. The primary focus in the United States has been on academic skills, however, new consensus is emerging that an array of nonacademic skills and occupational skills may be at least as important for labor market success (Lerman, 2013).

This study seeks to develop a case analysis of how to develop business education inclusive of learning outcomes that support student development in desired job skills. In reviewing the recently updated job skills employers seek in business school graduates, the researchers identify three specific skills not included in earlier releases of the job skills list. These new areas of emphasis in job skills guide how to align the preferred new job skills with improved course learning outcomes. The list of desirable job skills for 2025 includes three skills that were not considered on the same list a decade earlier, namely, a) Self-Management/Active Learning and Learning Strategies, b) Technology Use and Development, and c) Self-Management/Resilience, Stress Tolerance, & Flexibility. This research proposes to develop a case analysis of how integrating these three skills into course development and learning outcomes will best prepare business students for the future of work.

LITERATURE REVIEW

The primary purpose of the case study analysis was to understand the alignment of the job skills to the course learning outcomes and share the best practices in the College of Business and Management at Lynn University. The literature review helped provide relevant inputs from different research studies to enhance employability skills.

According to the National Association of College Employers, the class of 2021 experienced outcomes based on uncertain and unusual circumstances. The outcomes rate for the Class of 2021 was 84.1%, a gain from the class of 2020 reporting (82.4%, the lowest recorded rate in the report's history), but off from where graduates were pre-COVID. The class of 2019 posted an outcomes rate of 86.0%, and the class of 2018 was not far behind with a rate of 85.7%. This pattern repeats in terms of full-time employment: 55.3% of the class of 2021 was employed full-time within six months of graduation, which is better than that for the class of 2020 (53.6%) but trailed the class
of 2019 (59.7%) and the class of 2018 (58.7%). The current crop also surpassed their 2020 peers in terms of standard full-time employment (51.9% versus 50.2%) but fell well short of the class of 2019 (55.5%) and the class of 2018 (54.5%). A more significant percentage of the class of 2021 did opt to pursue further education than in the three preceding classes. Among the class of 2021 graduates, 21.6% reported continuing their education after receiving their bachelor's degree, compared with 21.1% from the class of 2020, 18.6% from the class of 2019, and 19.2% from the class of 2018 (Gray, 2022).

The literature review was thematic and identified five critical themes: technical abilities, integrative thinking, resilience, experience, and pedagogical shifts.

**Figure 1:** Identified themes in the literature review

![Figure 1](image)

Note: Figure 1 highlights the themes identified by the authors from the literature review.

**Technical abilities**

A review of the LinkedIn Learning classes completed by businesspeople before a work promotion provides insight into on-the-job technical skills most valued in organizations since 2020. The list includes technical skills, project management skills, and how to apply agile, adapt, and thrive in business (Leighton, 2018).

Considering future work skills desired by employers calls for an informed perspective by scanning the current day work environment, considering the recent and anticipated advancements in technology, and reflecting on the workplace status as current employers report experiencing a dearth of talent able to fill the void. According to McKinsey & Co (2023), the latest future of work job report indicates anticipated job growth to be most concentrated in high-skill jobs requiring technical abilities (McKinsey & Company, 2023).

Two studies conducted by Shariff, et.al. in 2014 and McMurtrey, et.al. in 2008 findings assisted academic institutions in designing the curriculum to meet industry needs and suggested
that revision should be consulted by industry partners. The studies showed interesting patterns for educational institutions to rely upon when developing curricula. However, it takes up to one academic year to address the ever-growing need and changes in the labor market.

Research indicates college graduate struggle beginning professional positions in business and computer technology because of the gap between the sought after soft skills for success, versus the skills college graduates bring to the opportunity. The gap is identified in aspects of ten soft skills most commonly related to these types of positions. These are communication, critical and decision-making, interpersonal, negotiation, problem-solving, self-confidence, self-management, teamwork, and worth ethics (Ajzen, 1991; Bringula, Balcoba & Basa, 2016; Robles, 2012; Singh & Singh, 2008; Williams, 2015).

Soft skills, a highly debated topic, draw several perspectives depending on the generation. Digital natives, the fastest-growing student population, are changing the definition of soft skills. For this demographic, scope of communication is focused on smartphones and access to artificial intelligence to complete coursework. Disruptive tech gadgets are powerful tools instructors can adopt and make useful by constructing assignments using apps to video and audio record the content.

Integrative thinking

Integrative thinking in business education has gained recognition and support from leading educators and institutions. Embedding integrative thinking in business education effective for:

1. **Enhancing Problem-Solving Skills:** Integrative thinking plays a pivotal role in developing problem-solving skills in business education. Roger Martin, a prominent advocate for integrative thinking, notes that it helps students address complex problems more effectively by considering multiple viewpoints and developing innovative solutions (Martin, 2007).

2. **Interdisciplinary Learning:** Business education has evolved to encompass a broader range of disciplines. Integrative thinking encourages students to draw on knowledge from various fields. Richard Florida, a leading urban studies theorist, argues that interdisciplinary learning is essential for preparing students to address complex, real-world business challenges (Florida, 2016).

3. **Ethical Decision-Making:** Integrative thinking incorporates ethical considerations into business education. The Aspen Institute's Business & Society Program emphasizes the importance of integrating ethics and values into the curriculum to produce socially responsible business leaders (Aspen Institute, 2021).

4. **Fostering Innovation:** Innovation is a cornerstone of business success. Integrative thinking fosters creativity by encouraging students to explore unconventional ideas. Dyer, Gregersen, and Christensen's research highlights the link between integrative thinking and innovative leadership (Dyer, Gregersen, & Christensen, 2009).

5. **Real-World Application:** Integrative thinking emphasizes practical application. Renowned business educator David A. Garvin advocates for bridging the gap between theory and practice by incorporating real-world problem-solving scenarios into business education (Garvin, 2003).

6. **Global Perspective:** Global perspective is a byproduct of integrative thinking in education, by encouraging students to address complex challenges that transcend borders and involve diverse cultural, economic, and social factors. Incorporating integrative thinking in
education will empower students to practice cultural sensitivity and inclusivity, sustainable business practices (Meyer, 2014), international collaboration, global innovation, and market expansion (World Economic Forum, 2019).

Crandell (2022) offers that integrative thinkers are in high demand. The authors examine how perspective-taking is critical to integrative thinking, enterprising thinking, and curiosity. Viewing complex systems, organizations, and problems from various perspectives is a skill capable of being developed. Including concepts of empathy, ethics, and divergent thinking in business school will boost integrative thinking abilities.

Resilience

According to Shamash (2022), who offers advice to business schools on cultivating better leaders, “one important way people build and shape their identities is through institutions such as schools and universities” (para. 2). Educational institutions have identified the need for individual resilience, and the desire to integrate resilience education into social emotional learning, iterative academic processes, and training & development.

Historically, resilience toolkit or procedure has been of industrial value, assisting in addressing global issues, such as climate change, industrial waste, sustainability, and disaster management. Several studies contribute to the literature review on the improved relationship between nature and industry, with an increasing number of analyses on the impact on education. The value of embedding resilience in university life has taken priority since the pandemic. Schools and administrators rely on the platform of resilience to make positive changes to the student experience and envision productive education outcomes.

Resilience programs and portfolios are trending throughout educational institutions spanning K-12, and in higher education, where interdisciplinary approaches are observed in core curriculum, throughout student affairs and residential life, as well as in instructional settings where student retention and persistence are encouraged.

One such Resilience Toolkit empowers individuals to choose evidence-based tools that regulate the nervous system, build capacity, and increase social engagement. Emphasis is placed on connectivity, belonging, growth, and development of the individual. Organizational resilience develops from individuals hosting increased abilities to connect, collaborate, and creatively solve problems. This regulated nervous system is a first step in healing individuals and systems; this is transformative resilience (The Resilience Toolkit, 2022).

Recommended approaches to align resiliency training with workplace expectations include shifting the focus from being resilient to becoming resilient. (Ahmed, Ucbasaran, & Williams, 2022). The minor shift suggests the development of a progression as the individual experiences stress, setbacks, and inconveniences from the position of being resilient, to the growth-minded approach of becoming more resilient as the challenge strengthens the individual and offers the benefit of experience when a similar trigger is realized again. The continuous improvement perspective offered in the “becoming” resilient mindset is supported by cases where research indicates early career professionals’ resiliency improves when organizations make intentional efforts to foster positive environment, providing workgroups appropriate guidance, and even the physical position of assigned workspaces (Cleveland, Warhurst, & Legood, 2022). These are the best practices for consideration in classroom instruction, too.
Adoption of resiliency programming or toolkit is valuable in preparing business graduates for workplace readiness. Resilience is found to benefit individuals’ work outcomes, work performance, job engagement, and overall well-being. Moreover, the individual’s leadership capability is enhanced when the individual possesses coping skills, acceptance of challenges, and a resilient attitude (Yu, Wen, Smith, & Stokes, 2022)

Experience and Pedagogical Shifts

The concept of apprenticeship has resurfaced in the workplace, and employers are inquiring if young business professionals have experience with mentoring, interning, practicum, or shadowing. Apprenticeships are similar but focus on skill building. (Christensen & Gambell, 2022). Transferring expertise from a subject matter expert to someone just learning is valuable and enriches organizational relationships and professional growth opportunities. Embedding experience

The pedagogical shift is a gift to the student and teacher experience. During the pandemic, the sky was the limit for pedagogies’ shifts, scope, and possibilities. However, university professors are now grappling with technological advancements that are upending traditional notions of classroom instruction and prompting significant shifts in how to conduct teaching and learning (Huang, 2023). This analysis of the problem addresses how technology utilized in course delivery boosts graduates’ competence in the technical abilities sought after by future employers.

While the shift in pedagogies is praiseworthy, it is important to understand the value of student engagement. Several studies focus on the pedagogical changes pre- and post-pandemic. However, there need to be more studies related to employability skills, course learning outcomes related to student engagement, and soft skills. A question that remains quantitatively unanswered is the relationship and impact of pedagogical shift and student experience in an online platform/education.

To improve teaching and learning, the five critical themes identified in the literature review each offer suggestions to align with industry standards (Table 1).

Table 1: Critical Themes Presented in the Literature Review

<table>
<thead>
<tr>
<th>Critical Theme</th>
<th>Suggestions to align with industry standards</th>
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<tbody>
<tr>
<td>Technical Abilities</td>
<td>LinkedIn</td>
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<td>Project Management/Agile</td>
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<td>Communication Devices</td>
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<td>Technological Tools</td>
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<td>Integrative Thinking</td>
<td>Problem Solving</td>
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<td>Training &amp; Development</td>
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<td>Resilience Toolkit</td>
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<td>Shift from Being Resilient to “Becoming” Resilient</td>
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</table>
**Experience**  
Apprenticeship  
Practicum  
Internship  

| Pedagogical Shifts | Technology Adoption in Course Delivery  
Reconcile Disparate Teaching & Learning Strategies in:  
Classroom Instruction  
Asynchronous Online Instruction  
Synchronous Online Instruction |

Note: Table 1 includes components presented in each of the five critical themes identified in the literature review.

**EXAMINATION**

In this section, the authors focus on exploring the gap between employment and education and make recommendations for pedagogical improvements based on their experience and practice in the university. While the possibilities to implement and improve the quality of education to map employability skills are inexhaustive, the authors chose to share the most feasible and valuable additions to the curriculum.

**Bridging Employment and Education**

The talent paradox has been a challenge recently, with employers looking for the best skills and graduates looking for the right opportunity to step into employment. Career readiness is a critical component in building a business curriculum. Career readiness is a foundation from which to demonstrate requisite core competencies that broadly prepare the college-educated for success in the workplace and lifelong career management (NCES, 2022). Career readiness is critical to ensuring successful entrance into the workforce for new college graduates. Career readiness is the foundation upon which to launch a successful career. Career readiness is the new career currency (NCES, 2022).

The correlation between education and employment has always been a topic of debate, with a panoramic perspective from the different stakeholders involved among education institutions and employers. A new dimension to this debate is the success stories of entrepreneurs with no educational degree, followed by millions of youths. Their voice lends to the diversion and importance of education. While the topic is often debated, the data shows a strong connection between education and employment. According to data from the U.S. Bureau of Labor Statistics (BLS), earnings increase, and unemployment decreases as educational attainment rises (bls.gov, 2016). Education alone does not guarantee job placement, or a salary increase in today’s dynamic market. However, the skills students learn along with the curriculum can provide leverage in the employment race.

Preparing future business leaders is a hallmark of business education that has long inspired learning outcomes at the course and program levels. Nevertheless, the new millennium and the post-Covid pandemic business landscape have prompted a review of what a prepared graduate should have and know. Since 2016 the World Economic Forum (WEF) has published a list of the Top 10 work skills people will need to thrive in the future economy. While several of the job skills included have stayed consistent from 2016 through the anticipated 2025, others have significantly...
changed as workplace designs have evolved. Unquestionably, the way business professionals work has shifted in recent years, and so should the approaches to preparing business graduates for successful career placement.

**Pedagogical Improvements**

Traditional classroom instruction and expectations in higher education focus on discipline knowledge. Educators believe the knowledge gained will lead to performance of competency. In contrast, employers tend to focus on competency performance (Jones Morel & Griffiths, 2018). To address the difference in approach, business schools can transcend mission. Emphasis must not merely be on demonstrating knowledge competency but on training & development of the skills and abilities employer’s desire. Assessing performance in realistic settings is one approach. Another is to provide career resources to support students in business school classes and beyond.

Additionally, instructional enhancements can improve the preparation of business students for career readiness. A careful review of course outcomes and instructional delivery can improve student learning outcomes specific to career readiness. Utilizing available programs and resources on campus provides instructional support while also addressing the gap in career preparation. The strengths of case teaching, including dealing with ambiguity and critical thinking, can move traditional calculation problems with one answer to instead, engaging holistic student experiences. Integrating career readiness tools and co-curricular resources prepare business school graduates for employer expectations. At Lynn University, course delivery includes integrating campus resources to support career awareness, preparation, and awareness. Examples are 1) Active Learning strategies, including a Co-Curricular Transcript, 2) Technological integrations with Handshake, and 3) Self-Management strategies and tools such as the Resiliency Toolkit. Each of these resources is explained here, along with an analysis of the demonstrated value for each.

**BEST PRACTICES AT LYNN UNIVERSITY**

Lynn University is a non-profit private institution and is an apple distinguished school. The university seeks to provide boundless education to empower students with academic and employability skills. As pioneers in tech education, faculty thrive on delivering creative and innovative classroom engagement and teaching.

**ACTIVE LEARNING**

The first job skill analyzed in this paper is Self-Management/Active Learning and Learning Strategies. The World Economic Forum coined Self-Management/Active Learning and Learning Strategies as the most important job skills for 2025 (The Future of Jobs, 2016).

Employers seek first-time hires comfortable with autonomy, taking initiative, and commitment to personal development. These strengths are indicative of organizational learning cultures. At Lynn University, educators share a commitment to developing business students' ability to self-direct through three initiatives: Competency-Based Education (CBE), Differentiated Teaching & Learning, and a newly adopted Co-Curricular Transcript. Here the authors examine each.
Competency-Based Learning

Competency-based learning was conceptualized in the 1960s as competency-based training by the Center for Human Development of Human Sciences (McCowan, 1998). Competency-based training (CBT) is a popular curriculum development model in social services training. CBT flows from a behavioral and not a humanistic foundation, unlike social work practice. CBT is a highly effective training approach when appropriately used, particularly when the curriculum can be specified and sequenced (McCowan, 1998).

Since its conceptualization, competency-based instruction techniques have varied. The terms 'competence' and 'competency' are used in a similar manner in the literature and are described differently by various scholars. These concepts are based on "descriptions of work tasks," or what a person must do in their career, and "descriptions of behavior," or how an individual performs their task (Boahin, 2018). According to different studies, there are multiple views on competency. Hence, the CBE's main aim is on a student's ability - what they can do rather than what they know (Klink et al., 2007). Although, there is no normalized and acceptable description of the term CBE. Weinert & Perlmutter (1988) state, "competency refers to an individually or inter-individually available collection of prerequisites for successful action in meaningful task domains" (p. 381).

For this study, competency-based coursework is described as a context in which the course content is fixed, but the timing is variable. Activating a student's individual pathway through course deliverables is attractive in instructional settings where students host a diverse level of understanding or various abilities and existing knowledge. Individualization of delivery time is a hallmark of competency-based education. Time-variable education provides learners an opportunity to individualize their pathway toward course completion. Heralded as a student engagement strategy, college classroom instruction with competency-based learning considers adopting the increased availability of information with digital and technical resources and, increasingly, the merits of a competency-based approach to instruction and deliverables. Today's learners prefer active learning. Course instruction relies on a digital era where learners routinely explore and answer self-generated questions with information at their fingertips. Such students enthusiastically embrace innovative computer-based learning (Schwinn, Cooper & Robillard, 2019). At Lynn University, instructors accept this preference for active learning and offer core courses in the College of Business in a typical instructor-led format and a parallel option in which students register for a competency-based section.

Differentiated Teaching & Learning

Differentiation and individualization became an integral part of education after the emphasis made at the U.N. Convention on the Rights of Persons with Disabilities in 2006 (United Nations, 2006) on proving a customizable learning experience and not a one model fits all. The convention focused on the inclusivity of learning and experiencing education. Differentiation refers to a varied preparation and design of inclusive teaching practice in a reactive way by reacting to the needs of students.

Tomlinson and Imbeau (2010) define differentiated learning as beneficial to both the faculty and students (Figure 2). Teachers can differentiate through content, process, and product. Students benefit by readiness, interest, and learning profile.
The College of Business and Management uses differentiated learning in its core curriculum. The goal of the college is to make a difference through differentiated learning. Each course-build engages students with the material by offering an assortment of interactive styles with the materials. Each course has instructor videos, case studies, and different assignment submissions like video, audio, and slideshow presentations. Differentiated learning has proven to work well in all programs and is reflected in the assessment data.

**Co-Curricular Transcript**

In recent years higher education institutions have expanded upon the traditional academic transcript to appropriately represent student qualifications in skills and abilities, most notably soft skills developed through campus involvement. Researchers and practitioners have equally identified that the unchanged academic transcripts most common in higher education are limited in scope and representation. Too often, a student's academic transcript reflects a highly structured academic curriculum that is consummate with contemporary higher education rather than illustrating a complete student experience where active learning, leadership, and collaboration. (Parks & Taylor, 2016). Whereas a Co-Curricular transcript captures a student's broader campus involvement and experiences. A co-curricular transcript benefits a student by providing a repository that becomes a portfolio to demonstrate growth and learning accurately and intentionally to a future employer (Life at Lynn). The portal's three competency domains encompass six different skills students work to exhibit proficiency in Accountability, Leadership, Problem Solving, Growth Mindset, Collaboration, and Equity & Inclusion.

In response to this developing challenge, Lynn University adopted a Co-Curricular transcript model that hosts five pillars in its framework. The five pillars are Experiential Learning, Community Engagement, Academic Collaboration, Professional Development, and Personal Development. Specific to the College of Business & Management, faculty facilitates opportunities for students to gain experience to include in a Co-Curricular Transcript in two pillar areas: Academic Collaboration and Professional Development.
Faculty in the College of Business support students earning credit in "Academic Collaboration" by serving as sponsors and advisors of students' research projects. Examples include research papers, presentations, and research poster presentations. When a student is committed to earning co-curricular transcript credit for research work the student is engaged in, they earn credit in the pillar of Academic Collaboration. Yet another example of how students earn credit for "Academic Collaboration" supported by faculty is student involvement in case competitions (such as the IACBE Case Competition) or regional events for Enactus or similar associations and organizations.

As mentioned, the second co-curricular pillar for which the College of Business supports students' endeavors is Professional Development. Students earn credit for identifying, investigating, and commencing professional certifications and badges in core competency areas specific to their area of study. Business professors recommend certifications and badges from various focus areas, including culinary credentials, marketing analytics, and project management certifications. The Professional Development pillar in the co-curricular transcript provides an opportunity for faculty-student engagement. It offers many opportunities for students to grow in their "active learning" capacity sought by future employers.

TECHNOLOGY AND DEVELOPMENT

The second updated job skill in demand for 2025 this study analyzes is what the World Economic Forum Report refers to as “Technology Use and Development” (The Future of Jobs, 2016).

According to a report published by the Chronicle of Higher Education, "colleges need to ask themselves what they can do today to prepare students to help build a future in which technology is used in maximally beneficial ways" (A.I. on Campus, 2020, p. 26). The resistance from colleges to accept the technical shifts can lead to under-prepared graduates. Introducing the preferred technical skills to business students can benefit the career readiness landscape. It is common for college graduates to begin working careers in jobs that underutilize their skills. As many as 44% of college graduates experience this pattern of underemployment (LI Students Guide, 2023). Equipping college graduates with in-demand technical abilities improves opportunities for suitable career placement upon graduation. Employers report a void in the graduates' abilities, recent graduates are often underemployed, and the workplace evolves to require newer technical abilities. Colleges must equip graduates to overcome the status quo through differentiation. Technical abilities such as software programs, coding, simulations, and gamification of classroom instruction seek to offer pedagogical differentiation. At Lynn University College of Business & Management, students use technical abilities to establish distinctive profiles showcasing abilities and experiences. Examples of distinction explained here include the implementation of Linear logic, the use of LinkedIn, access to CareerShift, and the adoption of Handshake.

Learning Linearity and Logic

Linearity and logic are established concepts in education, adding value to a sequence of functionality. Linearity and logic can be quickly established through value by a faculty member. The model provides students with an end goal for each module and creates autonomy while
providing established rules for learning or work submissions. While the concept seems simple, it is pivotal for strategizing the module's assessment.

Mapping the course Student Learning Outcomes (SLO) to the assignments has helped students connect and understand the importance of an assignment. This practice has tremendously helped students in our college and is also quite simple to implement.

Using student-friendly and free apps to gamify a course will give students a visualization of the learning materials, help them understand the sequence, and grasp the logical methodology. A cost-effective alternative is to create escape rooms in courses and create a healthy learning environment to engage students while meeting student learning outcomes.

At Lynn University, students practice linearity and logic through Root Robots and drones. The robots are used explicitly in Data Analytics and Cybersecurity programs and have been tremendously helpful in establishing the sequencing of coding. While the robots currently are only for two majors, they draw much curiosity for students observing the robots perform an action. A friendly drone flying in the class is an excellent way for students to understand the concept of businesses, the internet of things, and plan for space and time.

LinkedIn

LinkedIn reports that over 28 million college students host profiles on the platform, over 10 million employers seek college graduates via the platform, and over 1 million entry-level jobs and internships are posted for college students to consider (LI Students Guide, 2023). Professional recruiters and employers commonly report LinkedIn as their preferred search tool for recruiting and developing talent.

At Lynn University, business students complete required LinkedIn training and construct a viable LinkedIn profile worthy of an employer's consideration. This active learning strategy allows students to take inventory of desirable candidate profiles and ultimately to self-direct their career search. In addition to search functionality, a valuable tool is introduced to Lynn students as a learning portal. LinkedIn Learning offers over 16,000 courses in three categories: business, technology, and creative (Trent-Gurbuz, 2020). Career Preparation courses for Lynn business students facilitate credentialing and certification content offered by LinkedIn Learning.

CareerShift

Another helpful tool Lynn University College of Business students demonstrate competency in using through career exploration is CareerShift. This database is a job-hunting & career-management solution utilizing proven tools & strategies (CareerShift, 2023). For an educational institution, the advantage of CareerShift is the student's self-management of their educational and experience profile and ability to contact individuals in the field, industry, or even target organization. Moreover, technical solutions such as CareerShift allow students to reconcile the desired skills and qualifications identified in candidates who successfully earned a professional position the student desires and compares it with the experiences the student has garnered thus far. In Lynn University's College of Business & Management, students create a profile in CareerShift as early as their second academic year and use the resource in course activities and assignments.

A resource such as CareerShift allows a student to connect with and build relationships with currently employed individuals in an industry of interest to the student. The result is a relationship that can benefit the student through sponsorship, mentorship, or connection. Even more powerful is the possibility of apprenticeship. McKinsey & Co (2022) reports that
apprenticeship is distinctive and is a junior professional's best opportunity to grow skills. “Apprenticeship comes with a set of techniques to grow skills in the people around you, techniques that are different than just giving advice or even trying to create opportunities” (para. 9). Business schools can best serve students by going beyond traditional mentorship and advisement, and toward a model of apprenticeship to develop technical skills and develop students for in-demand careers.

Handshake

Handshake App, designed by Garrett Lord, is a revolutionary app to help students look for a job or internship in the United States (Stoller, 2022). The app launched in 2014 and hosts nearly 12 million college students today (many with little or no job experience) from 1,400 colleges and universities around the U.S. use the platform to search job postings from 750,000 companies, message with recruiters and alums, attend virtual career fairs and conduct video interviews. The app is free for students, and the school pays $8,000 a year (Stoller, 2022). One thousand one hundred companies pay for a premium version of the platform, dishing out even more: anywhere from $15,000 to several million dollars a year, which enables them to send targeted job postings to candidates based on their current location, gender, underrepresented group status, major, GPA, specific skills (such as JavaScript or Python coding) or school—for instance, letting them market to historically Black colleges or universities (HBCUs) (Stoller, 2022).

After signing up for free accounts, they can create profiles and receive personalized job recommendations and invitations to virtual career events. The app is similar to LinkedIn. It allows students to connect with alumni of their schools and employees of prospective employers. (Stoller, 2022).

Handshake hosts around 550,000 employers—including Amazon, Tesla, and Bank of America—and 1,200 universities that use the platform. Employers can post job listings for free and recruit entry-level candidates from a talent pool more diverse than what they might find visiting college campuses, Lord says. For access to premium features, such as brand pages and analytics, employers can pay an annual fee that starts at $10,000 but varies based on their annual entry-level hiring, the number of Handshake seats, and how complex or specific their hiring needs are (Stoller, 2022).

Despite the pandemic's effect on the hiring market, Handshake facilitated roughly 98 million virtual student-employer connections last year. Lord says. An important milestone on Handshake’s quest to rival competitor LinkedIn was achieved in 2022, as the company steadily progressed and accomplished its target revenue of $100 million (Stoller, 2022).

Equipping students to initiate their career exploration and job search is simplified with tools like Handshake. The resource is convenient, approachable, and accessible. Large and small colleges find value in offering the database to students and constructing career preparation initiatives to include it. For instance, the "EDGE" program at one small college encourages students to Explore, Develop, Grow, and Execute a personalized career exploration plan by utilizing Handshake and other campus resources (The Edge, 2022).

The authors do a good job in presenting viable tools that are employed at their institution in order to facilitate the connection between the academia and industry.
### SELF-MANAGEMENT

The third updated job skill in demand for 2025 this study addresses is what the World Economic Forum Report refers to as "Self-Management/Resilience, Stress Tolerance, & Flexibility" (The Future of Jobs, 2016). It is no wonder the workplace of the near future will require self-managing individuals with the ability to overcome and a penchant for adapting. Organizations are ever evolving, and industries are ever-changing. The ability to grow, develop, accept adversity, and forge forward are hallmarks of prosperous leaders. Business schools can develop these abilities in students by maximizing campus resources offered to students. At Lynn University, three specific initiatives support a business student's self-management and resilience. Offered here are explanations for the university's Success Predictor, the Freestyle Fridays initiative, and an instructional resource, the Resiliency Toolkit.

**Success Predictor**

Success predictor is a worthwhile investment to support the growth of students and nurture them in the direction best for them. At Lynn University, the success predictor is twofold – faculty lead and administration lead. For each course, faculty during the midterm grades send meaningful feedback to students through the Navigate platform. The platform keeps all stakeholders, students, faculty, and academic advisors informed of the progress and gently remind the need to work on specific aspects of an assignment.

The administration is testing out a success map for students. A success map predicts the possible performance for a higher-level course in the program based on the letter grade in a core course. The goal is to intervene and support the student during the mid-term grades to encourage them and show a visible path to success for the four years of their academic career.

**Freestyle Fridays**

Including self-reflection opportunities in academic courses allows students to assess how learning material pertains to them and how to improve one's ability to thrive. In Lynn University's College of Business & Management, experiential learning opportunities are offered on Fridays when typical academic courses are not hosted. On Fridays, business students self-select programs and events that meet their "style" and experiential learning preferences. Called "Freestyle Fridays," these programs are developed, facilitated, and led by faculty. Emphasis is on the student's personal development. Successful sessions include evoking mindfulness, benefiting from yoga, applying strengths & aptitudes, assessing good career-fit options, and even how to mine one's past to identify previously ignored passions and interests. These experiential learning opportunities offer students to view their academic journey through a new lens. This lens encourages self-reflection to inform improved decision-making for personal and professional goals.

Self-development can transform both perspective and performance. The College of Business & Management provides these opportunities to students to improve "self-management"—the same tool employers seek in the future workplace. It is essential to provide students with the ability to make better decisions, gain greater self-awareness, and develop the capacity to manage work and life with enduring ease and clarity. (Michael, 2022).
Resilience Toolkit

Several factors are critically important when preparing aspiring entrepreneurs and business leaders for postgraduate success. Two such aspects are students' ability to develop resilience and recover from setbacks; and their level of action orientation to get things done (Blass, 2018). Business educators can enable various pedagogical models to meaningful support the development of resiliency through entrepreneurial learning outcomes and develop instruction and pedagogy to address those competencies (Seikkula-Leino, et al., 2022).

Matching the desire of educators to prepare resilient graduates, students themselves report interest in resilience building while in college. University students seek resources addressing stress, anxiety, physical and psychological demands. Nearly 75% of college students report wanting support with being able to withstand or quickly bounce back from challenging situations (Krislov, 2019). Addressing challenges and adapting to them are abilities college graduates desire, and so do prospective employers.

Employers identify an employee's resilience as a success indicator driving the likelihood of promotion in the organization. Sought-after leadership abilities include personal awareness, self-management, and coping mechanisms to overcome challenges. At Lynn University, learning resilience occurs in and outside the classroom. Recognizing the behaviors of resilient people and developing coping strategies are outcomes to be achieved in both venues (The Resilience Toolkit, 2023).

Through Lynn University's Resilience Toolkit (2023), students begin incorporating optimism, adaptability, self-efficacy, and emotional regulation into their lives (para. 8). These abilities prove mutually beneficial to employers recruiting college students. Lynn University includes integrated technology in the curriculum anchored by an Apple iBook that offers five concrete and actionable coping strategies to use in times of stress. Business students complete the resilience toolkit in a required core course in the degree program.

THE MORE, THE MERRIER

Unlike in businesses, where mixing strategic tactics can be dangerous, it is quite the opposite in education. The more tools to support students and their success, the better. All higher education institutions can implement the best practices shared above for fruitful outcomes. The three components to successfully implement new strategies are practice, patience, and perfection while balancing the need for assessment, data analysis, and student learning outcomes.

CONCLUSION

Solving the talent paradox is complex as the puzzle has varying dimensions. However, administrators and faculty can develop a success plan for students. The success plan must be strategic to benefit students and encourage faculty to create their own sandbox with the plethora of tools accessible on the internet and provided by the learning management systems. The overarching theme in the discussion is to rely on creativity, good partnerships, and inspiring faculty to invent valuable deliverables.
This study reviewed the recently updated job skills employers seek in business school graduates and examined three specific skills not included in earlier releases of the World Economic Forum's job skills list. Newly identified job skills employers desire for 2025 included a) Self-Management/Active Learning and Learning Strategies, b) Technology Use and Development, and c) Self-Management/Resilience, Stress Tolerance, & Flexibility. This research examined how business education can construct a concerted effort to address these skills through myriad programs and services available on campus. Utilizing human capital, accessing campus resources, and adapting instructional techniques can better prepare business students for the future of work. Business schools can develop a model that supports graduates' career readiness by canvassing opportunities to 1) support active learning, 2) develop technical abilities, and 3) encourage learner self-management. The efforts result in business school graduates with skills and abilities commensurate with the demands in the workplace of 2025 and beyond.
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ASSISTIVE TECHNOLOGY: CURRENT AND FUTURE TRENDS IN BUSINESS EDUCATION

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ABSTRACT

Enrollment data for online education increased significantly over the last 20 years (Smalley, 2021). In 2015, approximately 11 percent of undergraduate students reported a disability (US National Council on Disability Website, 2022). Understanding and supporting the learning requirements of students with disabilities is imperative to their success in obtaining a degree. Possessing the skillset to implement Assistive Technology (AT) by faculty and online course developers is vital. This paper presents current research related to college students with disabilities, demonstrates impact of providing AT to improve academic success, as well as provides best practices for the development and teaching of courses that implement Assistive Technology, with specifics in business education.
INTRODUCTION

Six million students were enrolled in online classes in 2022 (Bouchrika, 2022). This is an increase from 2019-2020 enrollment data of 5.8 million students enrolled in online classes (Smalley, 2021). This increase in course and program offerings is opposite of what is occurring with overall enrollment in higher education. The National Clearinghouse Research Center reported that the average college enrollment in the United States is on a continued downward trajectory (Bouchrika, 2022). In fact, the number of enrolled college students in 2021, alone, decreased by 600,000 compared to 2020. (Nietzel, 2021). Students who dropout of institutions of higher education, “on average, are expected to earn $21,000 less than college graduates, ultimately making 35% less than their counterparts per year” (Bouchrika, 2022). In 2015, approximately 11 percent of undergraduate students reported a disability, or approximately 11 million individuals (US National Council on Disability Website, 2022). The portion of students diagnosed with one or more disabilities face additional challenges both in online and face to face classes. Institutions of higher education understand the importance of providing needed support to students with disabilities, however, there may be a misalignment with training and support for faculty, staff, and administrators to meet these needs. Understanding and supporting the learning requirements of students with disabilities is imperative to success in obtaining a degree.

The numbers of programs and courses that colleges and universities offer online are continuing to increase with the numbers of students requiring assistance due to disabilities. It is also important to note that the American Council on Education reported that if incoming students do not encounter a feeling of belonging during the initial eight weeks of beginning college, there is a significant risk of dropping out (Higher Education Today, 2020). Students with disabilities report an even more significant negative experience with a 25 percent withdrawal rate by the conclusion of the first year and 35 percent withdrawing by the end of year two (Shaewitz and Crandall, 2020). The importance of Assistive Technology (AT) during the development and teaching of online courses to facilitate a culture supporting inclusion and diversity are essential.

Assistive technology includes “any item, piece of equipment or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of an individual with a disability” (Individuals with Disabilities Education Act, 2004). For online classes, this includes closed captioning or transcripts for videos or lectures, specific size font, explanation of photos, and online forms should meet or exceed Web Content Accessibility Guidelines2 (WCAG 2.1). AT can provide assistance with reading, improved comprehension, and built in tools, such as dictionaries, built in highlighting and note-taking features, and visual tracking support, that can make you more efficient while reading.

Possessing the skillset to implement assistive technology, especially in online classes, requires an understanding of specific required adaptation (ie: notetakers, readers, interpreters, voice synthesizers, or assistive listening devices). Faculty and Online Course Developers possessing the skillset to implement AT in online courses often lags in colleges and universities.
REQUIREMENTS FOR STUDENTS WITH DISABILITIES RELATED TO ONLINE LEARNING

Institutions of higher education continue to evaluate methods to decrease the barriers for students to a college degree. The Rehabilitation Act of 1973, The American with Disabilities Act (ADA) of 1990, and the 2008 Amendments to ADA (ADAAA) were enacted to ensure equal opportunity to individuals with disabilities, yet complete inclusion has not been obtained (US Department of Justice Website). Not only must the legal rights of students with disabilities be supported, but it is necessary to fulfill the needs of all students studying at colleges and universities by creating a culture of inclusion. The utilization of “best practices” by incorporating techniques and tools related to AT improves the learning success of not only students with disabilities, but all students.

Prior to 2012, the United States (US) Department of Education did not collect data related to distance education. While rapid growth of online offerings occurred during the 1990s, the need for data has become even more important for making sound decisions (Smalley, 2021). The number of college students in online courses and programs continues to increase, with 51.8 percent enrolled in at least one course online during the 2019-2020 year in the United States (Smalley, 2021). To understand the current and future state of higher education as it relates to online learning, it is imperative that data is collected to support decision-making and adapt strategies for supporting the needs of students. However, it is important for colleges and universities to meet the needs of students with disabilities. These individuals are a segment of the college population that require adaptations in obtaining a degree.

According to Hill, Schwitz, and Queener’s (2020) research, college enrollment rates for young adults in the US with disabilities in 2017 was 25.4% compared to 40.9% of a peer population without disabilities. In addition, the average national rate for college completion was only 3.6% of young adults (ages 18-24) with disabilities compared to 10.9% of young adults without disabilities—the gap between those with and without disabilities earning a bachelor’s degree or higher was 7.2% (Hill, Schwitz, and Queener, 2020). “School districts, colleges, and universities receiving federal financial assistance and employing 15 or more persons must designate at least one employee to coordinate their efforts to comply with and carry out their responsibilities under Section 504” (US Department of Education Website). Students with disabilities can submit required documentation that once approved can obtain a device, piece of software, equipment or tool that improves, maintains or increases functional capabilities through the colleges Office of Disability Services. Yet, there are many students who do not note a disability for a number of reasons from embarrassment at leaving a classroom during a lecture to take the exam in a quiet room to the last to leave after other students complete an exam due to additional testing time (Kowalewski and Hernandez Ariza, 2022).

It is important for institutions of higher education to evaluate methods to decrease the barriers to earn a college education for all students, but for the population with disabilities additional assistance is necessary. The Rehabilitation Act of 1973, The American with Disabilities Act (ADA) of 1990, and the 2008 Amendments to the ADA (ADAAA) were enacted to ensure equal opportunity to individuals with disabilities, yet full inclusion has not been obtained (US Department of Justice Website). Not only must the legal rights of students with disabilities be supported; but every faculty, administrative and staff member on campuses require training. This training must be implemented in the strategic and daily mission of each institution. Recognizing
that resource constraints might pose challenges for institutions; a phased training approach could be considered. This methodology entails segmenting training across departments or roles, thereby allowing institutions to prioritize based on immediate needs and subsequently extend the training to encompass all departments over a delineated timeframe. In the pursuit of fostering inclusive educational environments, it is pivotal to prioritize the training of faculty, administrative, and staff members regarding the rights and needs of students with disabilities (Kowalewski & Hernandez Ariza, 2022).

Online pedagogical resources, inclusive of webinars, courses, and digital literature, offer a pragmatic avenue for institutions facing temporal or financial constraints. By curating and endorsing a repertoire of these resources, institutions can facilitate asynchronous learning, empowering faculty and staff to augment their understanding at their own pace. Moreover, an emphasis on training key personnel—those who engage most directly with students, such as academic advisors and professors—can serve as an initial step. Such targeted training ensures that those in the most impactful roles are equipped with the requisite knowledge, and over time, these individuals can function as internal advocates and resources for their peers (Hill, Shawitz, & Queener, 2020).

Collaborations with external disability advocacy entities can also be leveraged to bridge the training gap. These organizations often possess specialized resources and might provide training facilitators who can offer insight at a reduced cost or pro bono. Concurrently, integrating disability support content into pre-existing training modules can enhance efficiency. By intertwining this critical content with established faculty orientations or annual developmental programs, institutions can ensure continuity in awareness without necessitating separate training sessions. Lastly, even in the absence of formalized training, the establishment of open channels for dialogue on disability-related concerns can promote an institutional culture rooted in learning and mutual support (Hill, Shawitz, & Queener, 2020).

According to Kowalewski and Hernandez Ariza (2022) in order to meet the needs of all students studying at colleges and universities a culture of inclusion is necessary. The utilization of “best practices” by incorporating techniques and tools related to assistive technology improves the learning success of not only students with disabilities, but all students. The utilization of assistive technology can benefit all students, not just those with disabilities. The principles of Universal Design for Learning (UDL) encourage the creation of content that's accessible to everyone, regardless of their abilities. When educational materials are designed with all students in mind from the outset, it reduces the need for retroactive accommodations. For example, if a video lecture includes captions, not only does it benefit deaf or hard-of-hearing students, but it can also assist students who are non-native speakers or those who learn better by reading.

Also to be considered are the diverse learning styles of students. Every student learns differently. Some might be auditory learners, while others might be visual or kinesthetic learners. Assistive technology can offer different avenues for accessing and processing information, catering to these varied learning styles. For instance, text-to-speech tools can help auditory learners, while visual aids and interactive touchscreens can benefit visual and kinesthetic learners. Incorporating technology into learning can increase student engagement. Interactive tools and multimedia can make lessons more captivating and relatable. Moreover, when students see that learning environments are inclusive and considerate of all learners, they may feel more valued and motivated.
Assistive technology often allows students to access materials and complete assignments on their own time and at their own pace. This self-paced learning can be beneficial for all students, not just those with disabilities. For example, students who might need to revisit certain concepts can do so without feeling left behind (Wynants & Dennis, 2017).

Many assistive tools provide collaborative features. For instance, certain note-taking apps allow for shared notes or annotations. This fosters a collaborative learning environment where students can assist and learn from each other. For students with disabilities, assistive technology can be a game-changer in terms of building confidence and promoting independence. However, these tools can also instill a sense of accomplishment in all students by providing them with resources to overcome challenges. By using and understanding assistive technology, students are better prepared for a diverse world where they will interact with people of various abilities. They develop empathy, understanding, and skills that are crucial in a pluralistic society. While assistive technology was primarily developed to support individuals with disabilities, its benefits extend far beyond this group. When educational institutions prioritize inclusivity and the diverse needs of all students, the entire learning community stands to gain (Bouck & Long, 2021).

Additional examples of assistive tools in teaching include interactive whiteboards or audience response systems (often called "clickers") allow students to actively engage in lectures and discussions. While these tools can be particularly helpful students with attention disorders, they can also make lectures more interactive and engaging for the entire class. Many assistive tools, such as calendar apps, task managers, and note-taking apps, are designed to help students organize their tasks and manage their time efficiently. While these tools can be indispensable for students with executive functioning challenges, all students can benefit from improved organization and time management skills. Some assistive technologies, especially those designed for e-learning platforms, provide immediate feedback. This can be beneficial for students with learning disabilities who need timely corrections. However, immediate feedback can enhance the learning experience for all students by pointing out areas of improvement right away, allowing them to grasp concepts more quickly (Bouck & Long, 2021).

Under Section 504 of the Rehabilitation Act of 1973, "colleges that receive federal funds must provide: equal educational access to students with disabilities, comparable, accessible, and convenient housing for students with disabilities at the same cost, qualified individuals under this law have a physical or mental condition that restricts one or more major life activities (2). Equal access is achieved in the form of appropriate academic adjustments/accommodations and auxiliary aids and services that are necessary" (Attending College with a Disability, 2018).

Hill, Schwitz, and Queener (2020) report that in 26% of people in the US had a in 2019. As individuals with disabilities enter institutions of higher education, support structures are vital to improve success and graduation rates. This can be even more challenging with online courses and programs this population may enroll in. Most colleges and universities by removing physical barriers such as high curbs at crosswalks, and by adding handicap parking spaces on their campuses, automatic doors to buildings, Braille signage, and handicap restrooms. It is as important that assistive technology be incorporated in designing and teaching online courses.

Assistive technology refers to “any item, piece of equipment or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of an individual with a disability” (Individuals with Disabilities Education Act, 2004). This could include notetakers, readers, interpreters, voice synthesizers, or assistive listening devices. For online classes, this could mean closed captioning.
or transcripts for videos or lectures, and online forms should meet or exceed Web Content Accessibility Guidelines2 (WCAG 2.1). According to the American Council on Education if incoming students do not encounter a feeling of belonging during the initial eight weeks of beginning college, there is a significant risk of dropping out (Higher Education Today, 2020). Students with disabilities have an even more significant negative experience with a 25 percent withdrawal rate by the conclusion of the first year and 35 percent withdrawing by the end of year two (Higher Education Today, 2020). This supports the importance of higher education to facilitate a culture to support goals related to inclusion and diversity. Students with disabilities do not have diminished mental capabilities, they may just need support to assist in learning. may have a processing disability.

Most colleges and universities have introduced the basic requirements of the American with Disabilities Act on their campuses. This has been accomplished by the development of accessibility offices. These offices provide support for students with disabilities such as providing screen readers, sign language interpreters, notetakers, recording course lectures, additional examination time, and quiet locations to take examinations.

Wynants and Dennis (2017) investigated the impact on student learning following faculty completing development training related to Universal Design for Instruction (UDI). The researchers reported improved faculty attitudes and confidence in applying UDI principles that increased accessibility in course materials and content presentation. Understanding the pedagogy of teaching students with disabilities and of inclusive technologies is the first step, the next step is incorporating techniques, learning theory, and AT in courses faculty develop and teach. Faculty attitudes play a significant role in willingness to provide accommodation, providing the support a student requires to be successful in coursework. Faculty may also have a fear of lowering academic standards or that students may be afforded unnecessary accommodations by providing AT.

Institutions of higher education are required by federal and state laws to provide accommodations and support for individuals with disabilities. The US Department of Justice (DOJ) has provided technical assistance in the high-stakes testing context that should guide institutions of higher education in requiring documentation of disability and needed accommodations (U.S. Department of Justice, Testing Accommodations). According to Hill, Schwitz, and Queener (2020), the DOJ points to recommendations of qualified professionals, proof of past accommodations, observations by educators, results of psycho-educational or other professional evaluations, an applicant’s history or diagnosis, and an applicant’s statement of their history of accommodations, and notes that only one or two of those methods of proof should be sufficient. In some cases, students may develop or identify their disabilities, such as learning or mental health disabilities, after entering higher education. Obtaining timely medical documentation of the disability while managing a course load may be difficult due to the time and financial resources needed to get appointments with qualified medical professionals. As a best practice, schools that rely on medical testing and verification should take steps to ensure that such testing is readily available to students and that students are informed of the school’s requirements and how to meet them. Verification of this information is time-consuming and in some instances the Accessibility Office on a campus may have a single employee responsible for all disability services. Sufficient personnel support is imperative.

One might ask, what are reasonable accommodations? Hill, Schwitz, and Queener (2020) report that “the ADA requires colleges and universities to reasonably modify their policies and
practices to allow a student with a disability an equal opportunity to participate and succeed in school. Reasonable accommodation is an extremely broad and flexible concept encompassing any change that is necessary and disability-related, as long as it is not unreasonable or unduly burdensome and does not fundamentally alter the school’s program.” This might include course formatting, accommodations for a quiet location or additional time for examinations, emotional support animals permitted in buildings and housing.

Research supports the fact that assistive technology provides independent means for students with disabilities to overcome curricular barriers and increase the quality of learning experiences (Rose, Hasselbring, Stahl, & Zabala, 2005). Craig and colleagues (2002) affirm that assistive technology as an equalizing agent in learning for students with disabilities. In the field of technology, extensive research has focused on how individuals with disabilities use enablement devices to have more independent lives. Different adaptations are necessary to meet the learning needs of students who take in-person classes and those that are enrolled in online classes.

Online programs and courses need to be “intentionally designed for learners that specifically address course design, course delivery (teaching), course content, learning technologies, institutional infrastructure, faculty preparation and support, and student preparation and support” (Adair, 2022). Much of the development of online courses is ongoing. Adair (2022) continues to note that the structures and policies that colleges and universities, “have traditionally used requires a different way of understanding and evaluating quality”. Instituting quality assurance measure to ensure student understanding and learning is imperative. However, not all courses or programs have sufficient personnel or support. Hiring staff who are experts in instituting policies and structures to faculty in designing online courses is imperative. According to Hill, Schwitz, and Queener (2020), Schools should require, not just offer, training for staff and faculty on criteria and procedures for accessing and authorizing accommodations. Educating staff should be part of their ongoing professional development...Often the faculty in higher education do not know the legal rights and responsibilities of students with disabilities, do not understand their responsibility for accessibility, and do not understand the role of the disability support services office. Even when campuses offer training on accessibility to faculty, those staff who do not make time to participate may find themselves in an “emergency” situation attempting to respond to accommodation requests.

Bouck et al. (2021) reported that, “prior to 1997, and presumably, even shortly thereafter, research and practice involving assistive technology for students with disabilities involved students with low incidence or severe disabilities” (p. 249). Early research also concentrated on K-12 students versus college-aged students with disabilities. Bouck et al. (2021) notes that students with learning disabilities were the group to most frequently report their disability, whereas, students with emotional/behavior disorders were the least likely of the high-incidence disabilities categories to report their disability. The researchers also noted that less than one fourth of college students reported receiving AT assistance and that students with more sensory impairments (e.g., deaf-blindness and visual impairment) reported the greatest frequencies for receiving assistive technology. College students with autism, other health impairments, and traumatic brain injury were the least likely to report receiving assistive technology. Bouck and Long (2021) reported findings of approximately 30% of students with disabilities, aggregated reported using assistive technology. This is a relatively low percentage of disabled students receiving the assistance they require for success in college. There is also a significant percentage of students who do not self-
identify due to stigma of disabilities and social bias (Malcolm & Roll, 2019). Malcolm and Roll note that data collected by the National Center for Education Statistics reported that “students with less-apparent disabilities comprise 71% of the total population of students who self-identify at least one disability” (2019).

NEW FEDERAL DISTANCE EDUCATION RULE – 2021

The U.S. Department of Education has issued Final Rules on Distance Education and Innovation which went into effect July 1, 2021. These new regulations require all online courses and programs that students use federal financial aid (Title IV funds) include “regular and substantive interaction between students and their instructors applying to synchronous and asynchronous courses.” (Acosta, 2021). The main focus relates to asynchronous courses or online courses where the students and instructor are not engaged in the learning experience at the same time (Coursera, n.d.).

The Education Department defines “substantive interaction” as “engaging students in teaching, learning, and assessment, that is consistent with the course content under discussion and includes at least two of the following activities totaling at least 50-60 minutes every week for a 3 credit-hour course in a long fall/spring semester, or a scaled number of minutes for a course with a different number of credit-hours and a shorter or longer semester:
(i) Attending a synchronous class, lecture, recitation, or field or laboratory activity, physically or online, where there is an opportunity for interaction between the instructor and students;
(ii) Submitting an academic assignment;
(iii) Taking an assessment or an exam
(iv) Participating in an interactive tutorial, webinar, or other interactive computer-assisted instruction;
(v) Participating in a study group, group project, or an online discussion that is assigned by the institution;
(vi) Interacting with an instructor about academic matters; and
(vii) Required discussion forum activity (Acosta, 2021)

Evaluating how this rule will impact online courses being offered by each college or university is an initial step to instituting the information. Communicating these new rules to administrators, online course developers, and faculty is integral to instituting in current and newly developed courses, then assessment by the institutions to ensure compliance. Ensuring that student’s needs are met is integral in higher education. Institutions of higher institution are going to need to evaluate how this new rule will be instituted to meet these newest directives. Evaluating how this new rule impacts students with disabilities is integral.
UNIVERSAL DESIGN INSTITUTED IN BUSINESS COURSES

Online certifications earned by course developers and instructors provide the framework to build courses that would be assessible for all students. Quality Matters is an organization that provides eight General Standards and 42 Specific Review Standards used to evaluate the design of online and blended courses. A QM review provides “objective, evidence-based ways to evaluate the components of online learning” (QM Website). Many colleges and universities have developed workshops, certificates, and programs to educate faculty about specific pedagogies related to teaching online courses, best practices, and frequency of updating courses. Possessing a strong commitment to teaching and course development provides the impetus to continued excellence. Completion of these courses can be integral to instructors and course developers in meeting U.S. Department of Education Rules and Regulations, as well as guidelines set by individual colleges and universities. The goal of universal design eliminates the need for retrofitting course materials versus traditional methods for developing online courses. Examples can include using standardized statements on syllabi, on the course learning management system (LMS) or course site. It’s also important the materials (syllabi, explanations of assignments, videos) meet AT guidelines (font size, font style, font color, spacing, links) (Kowalewski & Hernandez Ariza, 2022).

The preparation of students for the workplace is a goal of business educators in institutions of higher education. Most of the accommodations for online course development are low cost, but there is a significant time commitment by course developers and faculty. It is imperative that faculty and online course developers have the skills in accessible course design and development. Faculty are the most important individuals in teaching the courses, developing course maps and assessments for online courses. They must be made aware of updates and changes in digital accessibility principles to eliminate barriers to inaccessible online content. Developing PDF documents with headings is a preliminary place to begin with pre-set bullets, numbering, and tables. If photos are included on the class Learning Management System (LMS), the use of alternative (alt) text that provides an explanation of the photo is suggested. Also, turning on computer accessibility options and dividing long documents into shorter, more easily managed documents improves access (Bouck & Long, 2021).

In developing skills for students to incorporate in future professional careers, there are increased expectations and demands. Instructional alternatives are needed to meet the needs for student success. With the number of students with disabilities increasing, it will continue to be a requirement to practice inclusion online and in face-to-face classes.

In the realm of business education, a discipline that often emphasizes adaptability, strategic planning, and resource optimization, it becomes even more pertinent to address the training needs related to students with disabilities. Modern business education is not just about teaching future business leaders the intricacies of finance, marketing, or operations; it’s about instilling a holistic worldview that recognizes the value of inclusivity and diversity in the corporate world.

Business schools, with their emphasis on case studies, group projects, and real-world simulations, must ensure that all students, irrespective of their abilities, can fully participate and contribute. For instance, when discussing case studies in class, it's essential that materials are accessible to all, from screen-readable formats for visually impaired students to captioned videos for the hearing-impaired. Moreover, as business programs often stress the importance of teamwork, faculty and staff should be trained to facilitate inclusive group dynamics, ensuring that
all students can participate effectively and are valued for their unique perspectives) (Kowalewski & Hernandez Ariza, 2022).

Furthermore, the principles of business - such as efficient resource allocation, strategic planning, and stakeholder management - can be applied when considering how best to implement disability support training. For example, using a phased training approach is akin to a strategic rollout of a new business initiative. Leveraging online resources can be compared to optimizing digital assets in business operations. And collaborating with disability advocacy groups mirrors the business strategy of forming strategic partnerships to enhance organizational capabilities. By intertwining the principles of business education with the strategies to support students with disabilities, institutions not only create an inclusive environment but also model the very business strategies they teach. This holistic approach prepares students for a diverse business world and reinforces the message that inclusivity is not just a societal need but also a business imperative (Kowalewski & Hernandez Ariza, 2022).

The transition of business courses such as accounting, operations management, human resources, or finance has not been without challenges. The shift from face-to-face to online learning in business schools have transitioned with classes offered online beginning over 18 years ago with the introduction of the first online classes. With Covid-19, this changed dramatically and literally overnight. Courses that had been taught face-to-face needed immediate development to an online format. The goal was to move classes to online format as quickly as possible, with little to no implementation of AT. With an almost immediate response to continuing to complete Spring 2020 semester classes, many areas related to faculty support or student success were disregarded. Many courses and programs transitioned 100 percent online and continue to be offered in this format. Higher education institutions need to provide continual professional development for instructors, training and orientation programs for students, and technical support for the content development and delivery of online courses to address the challenges in online education and enhance the effectiveness of online teaching and learning (Kowalewski & Hernandez Ariza, 2022).

Kebritchi, Lipschuetz, and Santiague (2017) noted three major issues related to success for online learners, instructors, and content development. The researchers specifically noted five areas students face challenges that include self-directed learning, motivation for learning, computer and Internet self-efficacy online communication self-efficacy, and learner control. Thus students who have higher levels of self-directed learning, possess stronger written communication skills (to effectively participate in discussion boards) are more successful in online classes. Student success is also related to being self-motivated to solve complex tasks such as trouble shooting problems. Students are more effective when they have the skills to sequence, pace, and determine the amount of assignments completed. Students may also feel disconnected and isolated in online courses. However, there can be a disconnect. Even if courses are developed with Quality Matters standards and incorporate best practices, students may still lack the initiative to succeed. As in face-to-face courses, not every student is going to be successful. These are areas that challenge students without disabilities add the challenges faced by students with disabilities and specific support is necessary for success.

There are faculty who are charged with teaching online, but have not received the training and support in transitioning course content from face-to-face to the online setting. Providing the needed support for students with disabilities requires specific training for instructors and online course developers. Kebritchi et al. note content, pedagogy, and technology require consideration in designing online courses. Institutions of higher education continue to consider faculty workload
in teaching online courses, frequency of course re-development, and continued training in the most current techniques and software.

Providing best practices related to disability services require faculty to include a statement of disability or information related to the Disability Support provided, including the link in the syllabus is also helpful. QM also provides an Accessibility & Usability Resource Site (AURS) to members that provides 1) Accessibility and Usability Resource Site, 2) Digital Accessibility White Paper Series, and 3) QMs Bridge to Quality Course Design Guide (QM Website). There is an increase in support for course development incorporating Universal Design than in the past.

Incorporating disability support and training into business education is more than a nod towards inclusivity; it's a strategic move that prepares students for the diverse, multifaceted challenges of the global business landscape. By understanding the nuances of the strategies outlined, readers—ranging from academic administrators to business educators—can tangibly improve their curricula and teaching methodologies.

For instance, consider a business school scenario where students are tasked with a project that requires analyzing the global market strategy of a multinational company. If the materials provided are accessible to all students, such as having screen-readable formats for those with visual impairments, it ensures that all team members can contribute effectively. The benefit here is twofold: not only do students with disabilities get an equitable educational experience, but their peers also gain exposure to diverse perspectives, a skill invaluable in the global business arena.

Another example is the use of case studies in business schools. By ensuring that these case studies cover businesses that have prioritized inclusivity and accessibility, educators can highlight the tangible business benefits of such approaches. For instance, a case study on Microsoft's inclusive design strategy would showcase how considering people with disabilities led to innovations like the adaptive controller for gaming. Such examples drive home the point that inclusive design isn't just about corporate social responsibility; it can also lead to genuine market innovations (Kowalewski & Hernandez Ariza, 2022).

Moreover, for readers involved in the administrative or decision-making aspects of business education, understanding the value of phased training approaches or collaborations with advocacy groups can directly influence budgeting and strategic planning decisions. By viewing these measures not as costs, but as investments in producing a generation of business leaders attuned to inclusivity and diversity, they can better allocate resources and prioritize initiatives.

In essence, this work provides readers with both the theoretical understanding and practical tools to embed inclusivity into business education. It's not just about meeting legal or moral obligations; it's about recognizing and harnessing the vast untapped potential that a truly inclusive approach can bring to business education and, by extension, to the global business world.

There are additional tangible tools and their outcomes can help elucidate the immediate and practical benefits to readers, particularly those in business education. Assistive collaboration software with platforms such as Microsoft Teams or Zoom have features that enhance accessibility, including live captioning or screen readers. When used in business education, these tools ensure that all students, regardless of their hearing abilities, can participate in group discussions, webinars, or online classes. This promotes equitable participation and encourages diverse perspectives in group tasks (Malcolm & Roll, 2019).
Accessible document creators such as Adobe Acrobat allows for the creation of PDFs that are readable by screen reading technologies. Business students, when submitting reports or projects, can ensure their work is accessible to all, including professors or peers with visual impairments. This ensures equal grading opportunities and mutual respect among peers. Simulation software with accessibility features such as Capsim with accessibility features built-in, allow students with disabilities can fully participate in experiential learning exercises, such as running a virtual business, ensuring they gain the hands-on experience that's crucial in business education. Speech-to-Text Applications such as Dragon Naturally Speaking or Google's Voice Typing support students with mobility issues or dyslexia can compose essays, reports, or even quick notes more efficiently, ensuring they can keep up with the rigorous pace of business courses. E-Books with adjustable text and audio features offer audio versions or adjustable text features for textbooks and reading materials. Examples are Audible or Kindle. Students with visual impairments or learning disabilities like dyslexia can consume course materials in a format that suits their needs, ensuring they’re not left behind in their studies.

Adaptive Keyboards and Mice are tailored for individuals with mobility issues, ensuring they can use computers efficiently. These tools ensure that students with physical disabilities can participate in computer-based tasks, a staple in modern business education, from data analysis in Excel to creating presentations. Tactile graphics tools create raised-line drawings of graphics or charts, such as the PIAF (Pictures in a Flash) tactile image maker. Students with visual impairments can understand complex business graphs, charts, and models, ensuring they grasp essential business concepts (Kowalewski & Hernandez Ariza, 2022).

DISCUSSIONS AND CONCLUSIONS

Understanding the complexities of assistive technology and its impact on college students with disabilities’ success presents opportunities, as well as challenges. Additional research specific to students with disabilities opinions and experiences related to learning with the inclusion of assistive technology is necessary. AT assists students without disabilities, providing written and audio. Additional research may expand existing data related to online learning.

Supporting individuals with disabilities begins in high school with students deciding on a college to attend. It is integral that colleges and universities design its websites and all hard-copy material to be universally accessible. Implementation of AT could positively influence improved approaches to curriculums, skill-development, learning support services, and overall, more supportive, inclusive, with equality in college environments. Testing accommodations should not prevent a student’s disability from interfering with the demonstration of knowledge obtained in the classes in which they are enrolled. Ensuring that enough quiet rooms, proctors, desks that move up and down to accommodate wheelchairs, and range of available hours supports success. The amount of time provide to students for testing is often determined by administrative concerns of the faculty, school, or testing provider. Extending examination time would be a reasonable accommodation for a student whose disability interferes with speed due to cognitive or physical processing if physical or cognitive processing efficiency or communication is what is what is being evaluated (Hill, Schwitz, & Queener, 2020). It is also integral that the Accessibility Office (or like
Inclusion in college campuses has multiple facets. First, services and accommodation overall on campus is a goal and part of the mission of the institution, as well as ensuring that the individual student receives the support and accommodations needed. Training of administration, staff, and faculty is imperative. Hiring and training staff who reflect the mission inclusion and support for ‘all’ students is a clear responsibility (Hill, Shawitz, & Queener, 2020). Supporting diversity increases inclusion for every individual on a college campus. Having an understanding of the processes and standards for accommodation for college age students which are regulated by ADA accommodations and when special education services for secondary students are regulated by the Individuals with Disabilities Education Act need to be an initiative for administration.

Professional development is not only necessary for faculty, but all personnel employed by the institution. Having staff who are knowledgeable about higher education and ADA legal requirements is a basic undertaking. Also, important are hiring individuals who can review and make decisions regarding providing accommodations assists in a complete initiative. It is important to provide the necessary accommodations while being consistent to avoid discrimination litigation. Standardizing processes related to approving accommodations maintains consistency and objectivity. When designing new buildings, incorporating ADA accommodations in the initial layout can ensure access in the classroom as well as when attending activities on campus.

Hill, Shawitz, and Queener (2020) report that many students don’t disclose their disabilities. Another obstacle for an individual with a disability is that it can be very expensive to obtain testing and diagnosis to fulfill disability requirements. The idea is to institute a proactive approach to designing classes to meet the needs of a diverse student population. Leaders and professionals in higher education can utilize modern AT research, such as presented in this paper, to create academic environments that will assist students with disabilities to succeed through their innovation, creative, and critical thinking methodologies in establishing policies and support structure that provide equalizer expertise such as assistive technology. Colleges and universities need to provide tools, such as checklists, testing mechanisms, and training to facilitate accessible technology and content (Hill, Shawitz, & Queener, 2020). It is important for planning and development purposes that faculty are informed before classes begin as to what accommodations are necessary and for what students for the semester to allow time for implementation.

LIMITATIONS

This paper evaluated current research related to the topics of college students with disabilities, the impact of faculty on learning of students with disabilities, and recommendations for future research. There is relatively limited research related to online learning and students with disabilities, as well as how to improve faculty support in the online learning process in supporting students with disabilities. Limitations for this paper include that data and materials were obtained from existing research-this is especially true of research specific to business courses.
DIRECTION FOR FUTURE RESEARCH

How assistive technology impacts college students and faculty is an area in higher education that merits additional scholarly research. It is the responsibility for all members of institution of higher education to support all students. Professors should design perceivable, operable, understandable course materials that incorporate robust educational activities that are accessible and usable for all. “Recognizing that most facilities, policies, rules, classes, textbooks, and activities were designed for students without disabilities is a basic premise” (Hill, Schwitz, & Queener, 2020). The ADA requires affirmative changes to educational facilities, policies and procedures, practices, and methods of communication when necessary to provide students with disabilities an equal opportunity to benefit, participate, and succeed.

Hill, Shawitz, & Queener (2020) report that as many as two-thirds of students with disabilities may have hidden or unreported disabilities. Adopting principles of universal design for learning will benefit a significant number of students. Faculty and staff can take the following steps to improve classroom inclusion by following UDL principles without fundamentally altering the content or changing the standards to which all students are held. Many students with disabilities face stigma associated with requiring additional assistance in classes. With the continued growth of online learning, research needs to continue evaluating student experiences, faculty experiences, organizational support to improve learning and graduation rates for students with disabilities.

It is important that colleges and universities provide the required funding, support, and personnel to lead accessibility efforts. Ensuring that students have access to an array of AT such as screen readers, magnifiers, software, and text-to-speech equipment is imperative for on campus use also. Additional research related to the type of AI students are using in colleges and universities would add to the data and information to enrich faculty training. Developing fully inclusive courses should be a goal of colleges and universities with the positive impact of assistive technology improving academic equality for all students.
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CREATING AND MAINTAINING EFFECTIVE, RELEVANT, AND INTERACTIVE DISCUSSION BOARDS TO ENHANCE ENGAGEMENT OF STUDENTS AND INSTRUCTORS

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ABSTRACT

Entirely asynchronous online courses lack the communication component that is a hallmark of traditional higher education classrooms. Discussion boards can help address this gap if the discussions are interactive and engaging for students. In adapting to online learning models, the online discussion forum can provide a pedagogically sound and reliable tool for retaining the unique outcomes of dialogue while taking full advantage of both synchronous and asynchronous online delivery methodologies. Utilizing tools that provide enriched and diverse media, such as video and audio recording, can lead to a more organic experience for learners.
The need for interactive and engaging discussion boards has been an important topic for over a decade. Balaji and Chakrabarti (2010), found that “the perceived richness of an online discussion forum has significant positive effect on student participation and interaction, and learning, when used along with traditional classroom lecture” (p. 1). Without the perception of interactive engagement, students may not regularly participate, and instructors may view the discussions as a tedious task that provides no benefit. As stated by Firmansyah et al. (2021), “it cannot be denied that the implementation of online learning still encounters various obstacles and challenges, including: interaction is not optimal, schedule and lecture estimates change, inadequate facilities, and the use of learning media is not optimal” (p. 61). Conversely, when students and instructors utilize the communication tool of the discussion board in a collaborative format, the result is a community of inquiry.

Entirely asynchronous online courses lack the communication component that is a hallmark of traditional higher education classrooms. Discussion boards can help address this gap if they are effectively used and seen as interactive spaces (Riggs & Linder, 2016) rather than just a “to-do” item to meet attendance and participation requirements. Riggs & Linder (2016) went in-depth with their identification of what they term Architectural Elements 1, 2, and 3, along with examples and discussion elements focused on aligning a focused narrative for educational growth. The COVID-19 pandemic shifted the overwhelming majority of students to online courses. As many colleges and universities begin to transition back to traditional discussion, demand for online courses continues to rise. Now that students have adapted to the modality, it is critical to keep the discussions interactive to engage students. In a study that examined the effect of the pandemic on student perceptions of online courses, it was revealed that “the implementation of learning was welcomed by the students, in their perception that online learning was considered to be more flexible, efficient and effective in the use of time as well as in terms of costs and energy” (Firmansyah et al., 2021, p. 61).

COMMUNITY OF INQUIRY FRAMEWORK

A Community of Inquiry (CoI) framework consisting of strong Teacher Presence (TP), a robust Social Presence (SP) and opportunities for Cognitive Presence (CP) from the student (Castellanos-Reyes, 2020) has been found to lead to better perceived and demonstrated student outcomes in discussion forums. CoI frameworks have been used frequently when evaluating online interactions in text-heavy or text-exclusive teaching and learning environments (Arbaugh et al., 2010; Gua et al., 2021). What has not been widely reported up to this time is the way that video communication mitigates some of the weaknesses in student engagement, as documented in previous studies. Video chat can be seen as a way to significantly increase SP, allowing both students and teachers full intellectual and affective intent to be communicated clearly, thereby increasing the sense of community that the CoI framework attempts to encourage and strengthen. The selection of manuscripts for this literature review concentrated on areas in discussion forum research aligned with TP, SP, and CP.
A discussion forum is used in an online or blended delivery course to create a place for content-related dialogue. Discussion forums are asynchronous tools that foster interaction (de Lima et al., 2019). Discussion forums provide an online learning platform that allows for interaction and knowledge sharing (de Zoysa & Hettiarachchi, 2019). When thoughtfully designed around active student engagement and facilitated well by an instructor, as evidenced by the presence of the CoI framework, the discussion forum includes the opportunity for students to summarize their understanding of the material, share any previous experience that relates to the content, and encourages the anticipation of application in future settings (Douglas et al., 2020).

The disadvantages of asynchronous forums include the propensity for miscommunication due to language barriers, cultural differences, and poor writing etiquette (Boelens et al., 2017). Additional disadvantages include the likelihood of information duplication and information overload (de Lima et al., 2019). Time management challenges also interfere with quality online conversations, both for instructor engagement and facilitation around content, as well as with students who are required to read and respond to several of their colleagues (de Lima et al., 2019).

It is a disadvantage when any of the three elements of the CoI framework are lacking, as the experience moves from a “collaborative constructive manner” (Garrison, 2007, p. 67) back to an attendance and participation checkpoint.

Although text-based forums are the most widely used in online and hybrid delivery courses, there is no reason that discussion forums must be limited to text-based communication. Multimedia is another tool that can be utilized to create conversation in the discussion forum. With proper scaffolding in the form of a carefully prepared instructor post and suggestions for technology use, multimedia posts can encourage increased engagement and social connectivity, which in turn improves overall outcomes (Alpizar et al., 2020). Indeed, Castellanos-Reyes (2020) demonstrated that multimedia use enhances the CoI framework through each element: Social Presence (SP), Cognitive Presence (CP), and Teacher Presence (TP).

An effective discussion board can simulate a live classroom discussion. Even without embedded multimedia, students can be actively engaged if the discussion board is perceived as an integral component of the course. The perceived value of the discussion forums increases significantly when the CoI framework is present. However, to further enhance the student experience, a multimedia component could be beneficial. Vázquez-Cano et al. (2015) indicated that a combination of multimedia concept maps and discussion forums are beneficial, highly interactive collaborative resources.

As a result of the relative newness of online or hybrid teaching, research into the best practices for discussion forums is ongoing and not yet mature. Recent technological advancements, such as the greater prevalence of Zoom as a teaching tool during and after the COVID pandemic and the widespread use of short form video use in social media (Portel, 2022, Stoszkowski et al., 2020) have added questions of best practices more quickly than research is able to answer them. However, recent research is beginning to create a window into many individual best practices and indicates areas for additional research.
Fundamentals of Sound Discussion Board Design

Providing discussion forums for student engagement can be effective tools for both wholly online and hybrid delivery systems and in both undergraduate and graduate level courses (Aloni & Harrington, 2018; Boelens et al., 2017; de Lima et al., 2019; Douglas et al., 2000; Page & Abbott, 2020). Research indicates the use of discussion forums can significantly enhance student learning in the online environment (Danaher et al., 2019; de Lima et al., 2019; Lieberman, 2019; Markel, 2001; Offir et al., 2008) while other research points to stronger achievement in learning outcomes (Saaed & Mohammed, 2020). Such achievement can lead to increased ability on the part of instructors to assess strengths and weaknesses in student learning (Danaher et al., 2019; Seethamraju, 2014).

Although discussions can be effective and engaging, the inclusion of a discussion board in class requirements does not guarantee student engagement, the development of a student learning community, or even substantive thinking and writing. Such outcomes require careful planning and preparation on the part of instructors and curriculum designers to provide strong questions that require higher-level thinking. In addition, thoughtful selection of the media that will be used for the discussion forum based on the skills that students are expected to develop is required (Balaji & Chakrabarti, 2010; Page & Abbott, 2020).

Appropriate participation in the discussion forum by the instructor is essential (Page & Abbott, 2020). Such participation provides scaffolding to guide students in initial work in the forum (Stoszkowski et al., 2020) and eventually provides an opportunity for students to see growth and increased understanding (Boelens et al. 2017; Danaher et al., 2019; de Zoysa et al., 2019). Often, TP is the element that is lacking to meet the CoI framework. When TP is balanced appropriately, increased student engagement, satisfaction, and learning has been seen consistently observed (Garrison & Arbaugh, 2007).

Among the questions that must be asked and answered by instructors and course designers are those concerning the type of interactive skills that the discussion board is designed to stimulate (Balaji and Chakrabarti, 2010). If the goal is to improve writing skills, a text-only discussion board may be the best choice. On the other hand, if the goal is to encourage reflective thinking and creative expression on the part of the student, research suggests that discussion forums that integrate non-text media sources can be of particular value (Balaji et al., 2015). Within the particular framework of the COVID-19 pandemic of 2020 and the emergence of Zoom and other video communication tools as standard for working situations, instructors may wish to explore video recording tools. The use of multimedia shows promise in encouraging both improved oral communication and reflective processing, specifically when instructor scaffolding is present (Stoszkowski et al., 2020).

Organization

Significant research and practitioner expertise indicate that the organization of the discussion forum and its relationship to other course elements are important precursors to quality (Boettcher, 2019; de Lima et al., 2019; Riggs & Linder, 2016; Vázquez-Cano et al., 2015). Current literature does not reveal an overall one-size-fits-all organizational structure that indicates best practices (McKenna et al., 2022). Existing research into elements of successful discussion forum...
organization include relevancy, connection to course and program objectives, purpose, importance, reflection, and the use of scaffolding designs.

Student perception of relevancy to their program goals, individual needs, and professional promotion or responsibility increases the likelihood of retention and success in online programs (Keiper et al., 2020; Yang et al., 2017). “Curriculum alignment is crucial in realizing learning objectives” (Wijngaards-De Meij & Merx, 2018, p. 219). Connecting discussion forums with learning objectives that students perceive as relevant is likely a key to robust participation and effective online learning. The purpose and importance or value of the discussion board to the student should be clearly communicated (Aloni & Harrington, 2018). There is a relationship between the communication of the purpose of the discussion forum to students and student motivation and overall participation in a discussion board.

When the relevancy of a learning activity and the process of using said activity is unclear to the student, the likelihood that the activity will be engaged in, let alone successfully completed, decreases. Because online discussion boards, especially those with various media options, are relatively new to the educational setting, instructors are wise to employ scaffolding practices around the discussion boards (Valencia-Vallejo et al., 2018).

“Scaffolding is an instructional technique in which an instructor or a learner assists another learner to improve and build on prior knowledge” (Sharif & Magrill, 2015, p. 124). According to Larkin (2002), scaffolding should focus on curriculum objectives, create shared goals, be flexible, encourage student participation, provide timely feedback, encourage learners to take risks, encourage accountability, and build community. Scaffolding may be particularly important in multimedia discussion boards because they may include less reflective posts (Stoszkowski et al., 2020). It is shown in the literature that scaffolding is a valuable tool. However, too many scaffolds within a particular assignment could reduce performance on multiple measurements by producing student overload (Giacumo & Savenye, 2020).

Evidence indicates that discussion forums have more value and effectiveness when used in relation to other class content (McKenna et al., 2022). Focal point design indicates the relationship between the discussion forum and other specific class content. A combination of focal point design and concept mapping improves discussion forum outcomes (Howell et al., 2017).

The level of reflection within a discussion forum is a way to measure the quality of posts within a discussion forum. The accepted measurement levels of reflection include non-reflective, descriptive, dialogic, and critical (Whipp, 2003). Critical reflection is difficult to achieve and “involves an individual withdrawing themselves, stepping away from the center of involvement, and visualizing practical situations occurring in the future” (Stoszkowski et al., 2020, p. 18). Flipgrid or other multimedia discussion forum tools combined with well-designed scaffolding may be an option for improving quality, which could be measured by student engagement levels. Significant research is needed in this area to validate this concept.

**Skilled Facilitation**

The skill of the instructor in facilitation of discussion forums is critical to increasing the quality of learner interactions (Balaji & Chakrabarti, 2010; Sharif & Magrill, 2015; Thomas & Thorpe, 2018). Several areas of research in facilitating discussion forums include instructor role, instructor participation, directing focus, engaging students, and writing Socratic questions.
A qualitative study by De Zoysa et al. (2019) indicates that both the learner and the instructor play key roles in facilitating successful discussion boards. Three types of presence were found to be important in fostering learner engagement: Social presence, cognitive presence, and teacher presence, or the Community of Inquiry (CoI) framework (Garrison et al., 2000). Teacher presence exists at the beginning or setup phase of almost all discussion forums. Presence after setting the initial state is not always necessary. Instructor involvement in answering questions and providing further clarification provides value to the learners.

In an exploratory and qualitative study, Markel (2001) argued that the use of discussion forums dramatically changes the role of the teacher from that of a provider of information to becoming a facilitator of discovery and dialogue. Markel (2001) contended that the instructor role can be increased through virtual presence to be more real-time by utilizing email and other electronic messaging tools. The instructor can also facilitate deeper learning by weaving content from the discussion board into other course elements, such as papers, presentations, and other assignments.

Given that the peer-to-peer learning model in discussion forums is pedagogically sound (Markel, 2001), a question remains: What level of instructor interaction is likely to provide the best learning outcomes? A large quantitative study by Mazzolini and Maddison (2007) analyzing over 40,000 postings found an inverse relationship between instructor and student postings. In other words, the more the instructors participated in the forums, the less the students participated. Quality and participation among students decrease when the instructor role is prominent. The authors indicated that early instructor posting in forums tends to kill off discussion, while posting later in forums may be appreciated by students.

One research paper submission asked, “Do Professors Matter?” in the context of discussion forums (Tomkin & Charlevoix, 2014, p.71). In their study of 20,474 students in a massive open online course (MOOC), the absence of the instructor did not impact forum participation, course participation, course completion, or course satisfaction. An experimental group with significant instructor and student aide interaction had no more interaction than a control section with no instructor interaction. In an extensive literature review by Aloni and Harrington (2018), the authors surmised that too much instructor participation stifles students and decreases student motivation. The research into instructor interaction indicates that the instructor plays a smaller role than common thought dictates, can be harmful, and is most valuable in the setup of the forum and perhaps later as the discussion develops. This finding does not absolve instructors from meeting the components of the CoI framework; rather, it provides guidance for when and how teachers should engage to enhance collaboration and increase student learning.

There is evidence that discussion forums at the beginning of a course can be less successful. For example, one study found that when a discussion forum was used too early in the course the students had “low expectations and (expected) unimaginative teaching” (Whipp, 2003, p. 8). The instructor can improve forum quality, engagement, and participation by providing clear directions and including observed themes in both positive and negative feedback. Additionally, the instructor can improve the discussion board quality by emphasizing key posts, rectifying incorrect posts, and recapping forum discussions (Wang et al., 2011).

Another technique to engage students consists of assigning students roles. Users who are more active are typically more influential and are a more positive force in discussion forums (Wong et al., 2015). A starter-wrapper role assignment technique enhances participation and creates an interdependence among the students (Jiang, 2017). In the starter-wrapper role a student
or multiple students become both facilitators and participants. This, in turn, tends to increase student responsibility within the learning environment. An additional model in which the roles of skeptic, synthesizer, and social tutor are assigned revealed that assigning students to specific roles led to the students “proposing more problems, synthesizing the discourse, reflecting on the process and organization of activity” (Cesareni et al., 2017, p. 9).

Significant research has indicated that the instructor should complete the role of moderator. However, assigning this role to a student may result in more actively engaged students who also may provide more in-depth posts (Seo, 2007). Seo (2007) also found “students responded to messages more actively and engaged in more in-depth discussions when discussions were moderated by a peer” (p. 21). A quantitative study of role assignments of first-year undergraduate students revealed higher levels of knowledge construction for the assignees as moderators, theoreticians, and summarizers (De Wever et al., 2009). Additionally, all students benefited from student role-supported groups. A devil’s advocate role is a prescription to counter groupthink. Within discussion forums, it increases daily conversation quality and helps learners to think and contribute (Wise et al., 2012).

Roles like source searcher or research reporter, evaluator, and hypothesis generator are often assigned to engage students. Their individual contribution to discussion board quality may be less than other assigned roles but have been shown to be an important engagement tool (Aloni & Harrington, 2018). Clearly, assigning students roles within discussion forums, similar to the peer moderator role as outlined by Seo (2007), can increase participation, engagement, forum quality, and learner course evaluation scores.

Another topic to consider in discussion forums is the Socratic method of questioning which is considered a foundation of modern education (Great Educators in History (I): Socrates, 2014). The principal argument behind Socratic inquiry is that education should include more than merely asking questions and storing information. Socratic inquiry includes reasoning, logic, and critical thinking. The questions are designed to investigate the learner’s mind rather than their knowledge of the subject. Detractors of online and hybrid education argue that online discussion forums often include the mere exchange of information with little critical thinking. Socratic questioning encourages students by having the learner explore the subject matter through thought-provoking questions (Lee et al., 2014). Examples include questions about questions, clarifying, assumption probing, reason and evidence probing, viewpoints and perspectives, and implication and consequence questions.

Recent research indicates that Socratic questions in discussion forums may increase higher-level learner understanding. Socratic questioning resulted in significant increases in critical assessment, justification, and the formation of new ideas and slightly higher levels of importance and accuracy (Lee et al., 2014). Often cited research by Yang et al. (2005) indicates that both teaching and modeling of the Socratic method and using specific questioning is effective in increasing critical thinking. The definition of Socratic question types that should be used in discussion forums to increase critical thinking include clarification, probing assumptions, probing reasons, and evidence (Lee et al., 2014).

**Student Engagement**

Student engagement also explains a substantial portion of forum success or failure. A recent practitioner review by Lieberman (2019) indicated several methods currently being tried to
increase engagement. These include hiding posts from students before their first post, decreasing the number of discussions in favor of more high-quality forums, allowing multiple methods of response, providing students with ungraded space, having students start threads later in courses, preventing cluster postings, making sure responses are multifaceted (for example a compliment, a comment, a connection, and a question), using modern technology similar to social media, and evaluating the depth of the post rather than the content.

Page et al. (2020) argued that modern learners desire “dynamic interaction and students’ increased expectations for sophisticated and flexible pedagogy” (p. 129). There is a further argument that modern learners also have less available time. A high level of instructor feedback and availability, clear directions provided ahead of time, an emphasis on quality over quantity, and a specific focus on student comprehension of the material are vital. Furthermore, engagement can be increased using multimedia such as graphics and video and involving students in the facilitation of the forum.

In a recent qualitative study, de Lima et al., (2019) argued that students expect the use of modern looking platforms that operate similarly to Facebook or other social media platforms. The traditional forum tools are no longer considered up to date by learners. They often view them as an assignment to be graded more than a learning tool and use other more modern tools for collaboration and communication with other students (McKenna et al., 2022). Suggestions from de Lima et al. (2019) include frequent instructor login and monitoring student use, clearly stating what is to be evaluated, using logs and other tools to check for use by both student and subject, creating a welcoming environment, promoting interaction, and providing valuable feedback.

Research is accumulating that indicates using unique approaches in discussion prompts may be beneficial in learning outcomes, engagement, and critical thinking. There is emerging evidence that the use of video in discussion forum prompts increases learning outcomes (Moos & Bonde, 2016). Word clouds within prompts in some contexts may provide a way to increase student engagement and critical thinking. One study by deNoyelles and Reyes-Foster (2015) found an increase in engagement and critical thinking by providing a word cloud rather than a linear text prompt in historic speeches. This technique resulted in more engagement, increased critical thinking, higher reviews, and qualitative evidence of success when compared to a control group.

DISCUSSION PROMPTS

The type of prompt deployed in discussion forums partially influences learning outcomes such as critical thinking, participation, and thread depth. When a discussion prompt is designed for the student to simply define or describe a topic or concept, the discussions tend to end once the definition is completed (Aloni & Harrington, 2018). Furthermore, both instructors and students agree that the quality of the discussion prompt often determines the quality of the discussion forum.

The six levels of Bloom’s original Taxonomy (1956): remembering, understanding, applying, analyzing, evaluating, and creating, provide insight into designing prompts. There is evidence that learner posts align by level of Bloom’s taxonomy (Ertmer et al., 2011). Given this, the prompt can be designed to match the intent of the learning. An example of a strategy toward the lower end of the pyramid would be to define terms or concepts after assigned reading. This strategy may prove valuable if an instructor is trying to get the student to interact with the reading
material to build basic knowledge. If the goal is to increase critical thinking and other higher-level processes, it makes sense to target Bloom’s higher levels.

Andrews (1980) supported the concept of aiming various questions toward the higher three levels of Bloom’s taxonomy. However, he classified classroom discussion questions into eleven main question types before the widespread use of online discussion forums. Ertmer et al. (2011) found that it was difficult to achieve the highest levels of Bloom’s in an online discussion forum. Critical incident, lower-level divergent, playground, and shotgun style questions tend to elicit medium rather than lower-level responses based on Bloom’s. Critical incident questions ask students to develop solutions to a particular scenario or problem. Lower-level divergent questions ask students for reasoning, conclusions, and summarization. Shotgun-style questions usually contain two or more content areas, allowing students to respond to at least part of the question(s). Playground questions are designed for students to learn and interpret the assigned topic. In summation, discussion prompts are most effective in developing higher-level responses if they target higher levels of Bloom’s and utilize critical incident, lower-level divergent, playground, and/or shotgun-style questions (Çeşme Oğuz Yıkkı, 2022).

There is evidence that additional instructor prompts as a scaffolding technique previously described in this article may be a valuable. Giacumo and Savenye (2020) found that the use of additional instructor prompts designed as a soft scaffolding method increased the breadth of contribution, the depth of contribution when combined with a rubric, the ability of students to learn in an online format, and student-to-student interaction. The combination of a rubric and additional Socratic method instructor prompts did not increase various outcomes.

Because of the previously mentioned challenges of quality, engagement, and critical thinking in discussion forums, practitioners are trying to incorporate numerous creative approaches in developing prompts. Kalelioğlu and Gülbahar (2018) performed a study utilizing the Six Thinking Hats (Bono, 1985), brainstorming, role-playing, Socratic seminar, and anyone here an expert. More examples of creative discussion prompts include role-playing (Hou, 2012), online debates (Li & Jeong, 2013), WebQuests, nominal group technique, invited experts (Kanuka et al., 2007), and self-assess the effectiveness of the question (Aloni & Harrington, 2018). There is a limited amount of research available supporting any one of these methods. However, given the perceived need to revitalize and improve discussion forums (Page et al., 2020), there is evidence that a multi-method approach increases student engagement and other learning outcomes (Kalelioğlu & Gülbahar, 2018).

Providing a Grading Rubric

“An instructional rubric is usually a one or two-page document that describes varying levels of quality, from excellent to poor, for a specific assignment” (Andrade, 2000, p. 13). Generally, one axis contains the criteria, and the other one is a measure of quality for each criterion, creating a selection tool. Each measure of quality or performance is described in detail within a particular rubric block. If the detailed description does not exist, the tool is not technically a rubric. Modern learning management systems provide for grading and feedback automation by simply clicking or selecting the box. Rubrics may be designed for a very specific topic or task, or they may be multidisciplinary. Three broad criterion categories include content, process, and mechanical (spelling, grammar, formatting, etc.). As an example of process criteria, the rubric should measure the learner’s use of the Socratic method.
Providing a grading rubric has become a widely accepted practice despite the existence of detractors (Schoepp et al., 2018). Detractors argue that rubrics may limit educator discretion or expertise and may suffer from reliability and/or validity problems. Given this, rubrics should be purposefully designed and applied by individual educators. For rubrics that are used by multiple instructors, an effective norming process can be used to address reliability and validity issues. One strategy to address reliability and validity issues is to use already validated rubrics and check with the institution or accrediting agency for pre-built rubrics. Tying learning outcomes and related rubrics directly to accreditation requirements will provide a benefit during accreditation reviews. Additionally, there is evidence that the use of rubrics, when thoughtfully developed and thoroughly communicated, can increase student evaluation scores (Giacumo & Savenye, 2020; Wyss & Siebert, 2014). Overall, research and practice indicate that the use of grading rubrics in discussion forums provides significant benefits.

Studies indicate both reliability and validity of individual rubrics (Brookart, 2018). However, these studies do not point to specific rubric criterion types that work better than others. Given that publications generally include successful studies, it is likely that existing literature does not adequately capture negative rubric use results. Therefore, the literature does not adequately differentiate good versus bad practices. However, given that many individual rubrics indicate reliability and validity, the choosing and the development process are key (Schoepp et al., 2018). A norming process can then be incorporated to measure and verify reliability and validity over time. Regardless of the ability to develop reliability and validity over time, practitioners should remember that research generally indicates better outcomes utilizing rubrics. Schoepp et al. (2018) developed a nine-step process for rubric norming:

1) document preparation; 2) rubric review; 3) initial reading and scoring of one learning outcome; 4) initial sharing/recording of results; 5) initial consensus development and adjusting of results; 6) initial reading and scoring of remaining learning outcomes; 7) reading and scoring of remaining transcripts; 8) sharing/recording results; 9) development of consensus and adjusting of results (p. 6).

The rubric should clearly outline expectations for initial posts and follow-up responses and count for a moderate amount of the course grade (Aloni & Harrington, 2018). Grading value should be increased with requirements for outside research and difficulty level. Recent learning management system upgrades and other online tools allow for the possibility of utilizing peer review and analytics in grading rubrics. Social media-like tools can be used to measure the length, votes, replies, followers, quotes, responses, views, and overall engagement by posts. There is even initial work in automating discussion forum grading in larger courses through the use of algorithms based on statistical and analytical tools (García-Molina et al., 2021). This research is in its infancy, and it is possible that students may be able to game the system without achieving learning objectives. However, forum statistics are an important resource for process grading and student engagement. These statistics commonly include the number of posts read by the learner, the amount of engagement by topic, and the ability to utilize social media style ratings. These and other statistics should be used to continuously evaluate and improve forum performance in the three components of CoI. Providing a rubric that has been thoroughly vetted is the best practice. The next best practice is to provide a properly designed rubric over none at all.
Quality Over Quantity

One of the problems that plague discussion boards is the emphasis on quantity rather than quality. Instructors and students may both be alienated by such requirements. Although a minimum baseline needs to be established to ensure student participation and instructor engagement, making it more interactive could be more engaging for all involved. Most colleges and universities abide by the “post this many days with a response of this many words using this many references” standard. This type of guideline often leads to students and instructors monitoring the word count at the bottom of their window. Discussions can be just as engaging with shorter, yet still substantive, responses (Yang et al., 2022).

As an instructor, dropping a simple thought-provoking question is often far more engaging to students than another instructor-provided 200-word response designed to hit a minimum requirement. Extraordinary engagement from students can occur with posts like the following:

- After reading the content for this week, provide a brief takeaway that will help you in your future career.
- Each of you likely has direct experience related to this week’s content. What situation immediately came to mind as you were reading?
- What challenges did you face that challenged your progress this week?

There are several similar topics that can be addressed. However, in many instances instructors may not get “credit” for such a post and may choose to avoid such engaging questions. Instead, they will post a drawn-out scholarly post prompting student responses so they meet requirements but do not garner engaging responses because of a lack of excitement for the topic. This is not a good example of teacher presence in meeting with the CoI framework. In alignment with the CoI framework, an effective discussion forum post should foster students’ thinking, creatively engage students, and invigorate the instructor, regardless of word count. Kwon et al. (2019) indicated that “perspective-widening comments facilitated students' evaluation of the peer postings and brought up diverse perspectives, contributing to knowledge construction” (p. 226).

In addition, as previously mentioned, many LMS offerings, including Blackboard and Canvas, provide the option for students and instructors to use a “like” button or similar features. This helps to mirror the social media environment that is commonplace in 2023. Considering the “140-character” environment flourishing in the United States, engagement may grow if “substantive” is based on the quality of the content rather than merely measuring the number of words in the post. Engagement measured by quality meets the cognitive presence element of the CoI framework and encourages social presence as well (Nowakowski et al., 2022).

Mirroring some social media features also provides an opportunity for the gamification of the forums or additional inclusion of multimedia content. Products such as Flipgrid incorporate video discussion options into asynchronous classes. In a study examining the implementation of video-based content in discussion forums, Lowenthal and Moore (2020) found that “students overall reported that they liked using Flipgrid, it was easy to use, and that it helped improve social presence” (p. 28).
STRUCTURAL CONSIDERATIONS

One of the challenges faced by students and instructors is the tendency to have pre-defined due dates for both initial posts and response posts. If the initial student post is due on Wednesday, and the requisite reply posts are due on Saturday, it is our experience that the exceptional students will become disengaged as the course moves forward. Those students are quick to post, create engaging posts, and follow all the expected requirements. The average or low-performing students may wait until the last minute of the last day to make their posts, thus giving the exceptional students the inability to respond earlier in the week. Social presence within the CoI framework is stronger when it leads to ongoing engagement throughout the week, regardless of initial postings, because students gain an interest in the topic and the thoughts of their colleagues (Carrió, 2022).

Discussion boards with fluctuating due dates can be beneficial for students. First, it will cause students to log in more often if they do not have a pre-defined consistent due date. If the dates fluctuate each week, students will have to log in early in the week to check the due date. As they head to the discussion board to see the due date, they may find that a question they are highly interested in has been posed, leading them to engage earlier. In addition, when discussion boards become active early, instructors have more content with which to engage early in the week, thus creating a loop of consistent engagement caused by interesting discourse (Avcı & Ergün, 2022).

Some of the most engaging discussion boards are often there for student participation but do not affect grades in the course. Introduction forums provide students and instructors with the opportunity for interpersonal connection. This may result in informal cohorts developing and a sense of community that enhances the learner experience. An instructor may also learn something about a student that leads to a future engaging discussion. “Course question” forums also tend to engage students but do not often count for grading. These forums can often give an instructor an indication of who the natural leaders are in the class, again leading to opportunities for engagement and relationship development. If interaction in these forums led to even a small impact on students’ grades, engagement may be even more powerful (Sinha et al., 2022).

Another important structural consideration to contemplate is the size of the population in the forum. Classes with more than 10 students can often lead to overwhelming discussion boards. Instructors are less likely to be motivated to deliver an effective reply to every student, and students will scan the forum and reply to either the newest posts or those without a large number of replies, rather than read all posts. Students desire fast replies, feedback and activity at regular intervals (Öztürk, 2021). For students who are unable to log in to the forum daily, it can cause significant anxiety when they log in and see 90 unread posts.

An effective mitigation for this is to break larger classes into small group discussions. Although it is just as much reading for the instructor, the posts are likely to be more engaging than a generic reply post, thus engaging the instructor in the discussion. Students will become less overwhelmed and more apt to read the entire forum. This is another example of an activity that can lead to students developing informal cohorts or potentially study groups (Ulum, 2021).

PRACTICAL APPLICATIONS

In an effort to meet the CoI framework elements of cognitive presence (CP), social presence (SP), and teacher presence (TP) (Garrison et al., 2017), the authors provide two examples
of practical application. These examples utilize multimedia tools and videos to enhance the learning experience. Additionally, the application examples encourage students and instructors to utilize multimedia tools, building a sense of community through increased SP, leading to improved CP.

**Introductory Video Forum**

Creating a social presence may be one of the most difficult parts of a successful community of inquiry in online or socially distanced environments. In a face-to-face classroom environment, having everyone introduce themselves often serves as an ice breaker to social barriers. A solution in online or hybrid courses is to create a video introductory forum. The example video forum prompt below encourages participants to introduce themselves, describe skills and experiences that may add value to the course, and talk about something more personal:

**Introduction Forum.** Post a short introduction video about yourself to include, but not limited to, the following:
- Your name
- Your major or program
- Your work background
- Useful business or other skills that will be applicable to this class (min 3)
- Some personal information about at least one thing you enjoy in either your personal or business life.

Additionally, respond to and interact with a minimum of two other students.

Envision a student responding to the personal information prompt by playing a musical instrument and introducing the class to their budding YouTube business. Envision another student describing being a successful athlete, a summer marketing internship, and growing up on a farm. Envision a third student describing their leadership experience in leading a team. Finally, envision the instructor’s video introduction overlapping with many of the described experiences. At some level, a social presence has been created. For the forum to be successful, the instructor must follow up with more social, teaching, and cognitive presence relating to the student’s individual experiences and needs (Grouse et al., 2022). One method to increase social presence in an introductory forum is to provide ungraded space for the instructor and students to get to know each other. With reduced grading pressure, students may provide more useful background information which can be used to create cognitive presence in future interactions.

**Video Forum for Net Present Value (NPV)**

There are specific types of content that are not well suited for online delivery according to the opinions of some instructors. Examples include mathematics (Rahim et al., 2023), hard sciences, economics, accounting, and finance. In a typical face-to-face classroom setting, an instructor will introduce a formula written on a board and work through examples, interacting with students until learning has been achieved. This in-person interaction often creates a successful
community of inquiry. Duplicating a successful quantitative learning environment with traditional text-based discussion forums is difficult and unlikely.

A well setup and managed video discussion forum provides an opportunity to equal or improve on the face-to-face experience (Donham et al., 2022). The following video-based discussion forum prompt and interaction provides an example of a successful learning experience in an entirely asynchronous environment in a finance-related course:

**Weekly Discussion Forum.** After reading the textbook assignments for the week, complete an initial video post with a minimum of 1 minute and a maximum of 1 minute 30 seconds using 1 or 2 topics below to guide your post. Respond to at least two fellow student's posts with substantial value-added comments.

1) Define variable costs and give examples. Why are they important in evaluating profitability?
2) Define fixed costs and give examples. Why and how are fixed costs important in evaluating profitability?
3) Explain how to calculate the NPV of an investment. Why is NPV important?
4) Describe the elements of the balance sheet and the balance sheet equation. Why is it important in evaluating and managing a business?
5) Describe the elements of an income statement (profit and loss statement). How is it used in evaluating and managing a business?
6) Define and describe EBIT. Why is it important in evaluating and comparing business performance?

Combining the successful community formation described in the previous example with the reality that many learners are comfortable with social media use on TikTok, YouTube, and other formats, an opportunity exists to have very successful online learning. The student responds to the above by defining net present value (NPV), providing an example, displaying the formula, completing the formula with the example on a whiteboard, and then explaining the decision made using the example in a one-minute and 25-second video. Fellow students respond by providing additional value-added comments about the video. The instructor follows up by highlighting the video and relating it to concepts. This example utilizes the flipped classroom concept, the media richness theory (video), and the online interactive environment to duplicate or improve upon the face-to-face classroom (Varghese & Sood, 2022).

An effective grading rubric will encourage cognitive presence by requiring critical reflection. An example scoring rubric (see Appendix A) description for the concepts includes the following: “Uses relevant personal & professional examples that demonstrate application of relevant theories, principles, research. Uses references and outside expertise as a complete foundation for writing”. This requires the learner to engage in a high level of cognitive presence by finding a relevant example, applying the concepts, and using foundational references or resources. Other rubric priorities include having learners post early so that other members have time to engage and requiring responses to extend meaningful discussions upon previous posts. A well-developed rubric will encourage learners to engage in both CP and SP.
CONCLUSION

Discussion is a critical component in the teaching and learning process. Indeed, discussion sits at the heart of the Socratic method which has been a staple of higher education for centuries. In adapting to online learning models, the online discussion forum can provide a pedagogically sound and reliable tool for retaining the unique outcomes of dialogue while taking full advantage of both synchronous and asynchronous online delivery methodologies. When structured wisely, discussion forums incorporate the community of inquiry framework, eliciting and even requiring reflection and critical thinking. Careful planning around initial questions and setup, the use of scaffolding, assigning student roles within the discussion, and instructor restraint in over-participation, have also been shown to yield strong results in both student learning outcomes and student satisfaction with the learning developed through the use of discussion forums. Employing tools that provide enriched and diverse media, such as video and audio recording, also lend to a more organic experience for learners. Learning and satisfaction are also enhanced when the material in the discussion board can be integrated into other learning activities in the course, such as lectures. Appendices B through F indicate the important elements found in this literature review and can be used as a guide for the development of effective online discussion forums.

Although more research can and should be done around topics such as instructor facilitation and participation, maximizing teacher presence without minimizing social presence, the impact of the specific media or tools being used for the discussions, and the role of students in defining and directing the content of discussion forums, the process itself is one that should be used in online learning environments to enhance learning among students.
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a review of the literature on face-to-face and online group-facilitation. *Interactive Learning Environments, 27*(1), 62–71. https://doi.org/10.1080/10494820.2018.1451897


## APPENDIX A: EXAMPLE RUBRIC

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Poor 0.5 points</th>
<th>Fair 1 point</th>
<th>Good 1.5 points</th>
<th>Excellent 2 points</th>
<th>Criterion Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Posting has numerous errors in mechanics, usage, spelling and sentence structure. Errors interfere with the readability. Participated was late and on one day.</td>
<td>Posting is adequate but may contain some errors in mechanics, spelling, usage and sentence structure but errors do not interfere with understanding. Participated was late and on one day.</td>
<td>Posting is polished but may contain minor errors in mechanics, spelling, usage and sentence structure. Initial Post was completed by Wed. Participated in multiple days.</td>
<td>Posting is polished generally free of errors in mechanics, spelling, usage and sentence structure. Initial Post was completed by Wed. Participated in multiple days.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Responses/ Follow-up</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussion response doesn’t really show a clear connection. Minimal or no response to fellow students.</td>
<td>Response is a shallow contribution (agree or disagree) and doesn’t really add value to discussion. Responses were completed on the same day as the initial post.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Concepts</th>
<th>Poor 1 point</th>
<th>Fair 3 points</th>
<th>Good 3.5 points</th>
<th>Excellent 4 points</th>
<th>Criterion Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contains no reference to personal and/or professional examples. Uses personal opinion as a foundation for writing rather than references and expertise in all writing.</td>
<td>Refers to personal and/or professional examples, but is not well integrated in the response. Uses personal opinion as a foundation for writing rather than references and expertise in all but 1-2 items.</td>
<td>Refers to personal and/or examples that relate to the relevant theories and/or research. Uses references and outside expertise as a foundation for writing except for 1-2 items.</td>
<td>Uses relevant personal &amp; professional examples that demonstrate application of relevant theories, principles, research. Uses references and outside expertise as a complete foundation for writing.</td>
<td>/ 4</td>
<td></td>
</tr>
</tbody>
</table>
### APPENDIX B: FORUM SETUP BEST PRACTICES

<table>
<thead>
<tr>
<th>Best Practice</th>
<th>Reference(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor is present at the beginning of the forum</td>
<td>(Castellanos-Reyes, 2020)</td>
</tr>
<tr>
<td></td>
<td>(Stoszkowski et al., 2020)</td>
</tr>
<tr>
<td>The learner has the opportunity to cognitively engage</td>
<td>(Castellanos-Reyes, 2020)</td>
</tr>
<tr>
<td>Learner has the opportunity to summarize their understanding</td>
<td>(Douglas et al., 2020)</td>
</tr>
<tr>
<td>Learner has the opportunity to share personal experience</td>
<td>(Douglas et al., 2020)</td>
</tr>
<tr>
<td>The learner has the opportunity to create a social presence</td>
<td>(Castellanos-Reyes, 2020)</td>
</tr>
<tr>
<td>The response media is based upon skills that the student is expected to develop (Oral, media, and or written communication)</td>
<td>(Page &amp; Abbott, 2020; Balaji &amp; Chakrabarti, 2010)</td>
</tr>
<tr>
<td>The forum builds on prior content and builds toward on future content (scaffolding)</td>
<td>(Alpizar et al., 2020)</td>
</tr>
<tr>
<td></td>
<td>(Douglas et al., 2020)</td>
</tr>
<tr>
<td></td>
<td>(Sharif &amp; Magrill, 2015)</td>
</tr>
<tr>
<td>The learner is not overloaded with multiple scaffolding</td>
<td>(Giacumo &amp; Savenye, 2020)</td>
</tr>
<tr>
<td>The combination of scaffolding and the use of media are designed to promote critical reflection</td>
<td>(Stoszkowski et al., 2020)</td>
</tr>
<tr>
<td>The relevancy of the students’ program/goals/needs is clearly explained</td>
<td>(Keiper et al., 2020)</td>
</tr>
<tr>
<td></td>
<td>(Yang et al., 2017)</td>
</tr>
<tr>
<td>The forum topic is aligned with curriculum and connected to learning objectives</td>
<td>(Wijngaards-De Meij &amp; Merx, 2018)</td>
</tr>
<tr>
<td></td>
<td>(Aloni &amp; Harrington, 2018)</td>
</tr>
<tr>
<td>The directions and the purpose of the forum is clearly communicated</td>
<td>(Aloni &amp; Harrington, 2018)</td>
</tr>
<tr>
<td></td>
<td>(Wang et al., 2011)</td>
</tr>
<tr>
<td>Focal point design, concept design or other methods indicates relationship to other course content</td>
<td>(Howell et al., 2017)</td>
</tr>
<tr>
<td>The forum appears in the course after sufficient time</td>
<td>(Whipp, 2003)</td>
</tr>
<tr>
<td>The forum prompt is not simply designed to define or describe a topic, but to include critical reflection</td>
<td>(Aloni &amp; Harrington, 2018)</td>
</tr>
<tr>
<td>The forum prompt is aligned with the intended level of learning</td>
<td>(Ertmer et al., 2011)</td>
</tr>
<tr>
<td>The forum prompt is aligned with higher levels of learning</td>
<td>(Andrews 1980)</td>
</tr>
<tr>
<td>A grading rubric is utilized and includes provisions for content, process, and mechanical aspects</td>
<td>(Schoepp et al., 2018)</td>
</tr>
<tr>
<td>The grading rubric encourages and measures good writing, oral and or technical practices</td>
<td>(Boelens et al., 2017).</td>
</tr>
<tr>
<td>The grading rubric clearly outlines expectations for initial posts and follow up responses.</td>
<td>(Aloni &amp; Harrington, 2018).</td>
</tr>
<tr>
<td>The forum includes 10 or less students</td>
<td>(Öztürk, 2021).</td>
</tr>
<tr>
<td>The forum information is based on scaffolding but not duplication of previous material</td>
<td>(de Lima et al., 2019)</td>
</tr>
<tr>
<td>The forum content does not overload the student</td>
<td>(de Lima et al., 2019)</td>
</tr>
<tr>
<td>The forum contains no language, cultural, or accessibility barriers</td>
<td>(Boelens et al., 2017).</td>
</tr>
</tbody>
</table>
# APPENDIX C: OPTIONAL FORUM SETUP, RESEARCH BASED

<table>
<thead>
<tr>
<th>Best Practice</th>
<th>Reference(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The learners are assigned roles. Examples include starter-wraper,</td>
<td>(Jiang, 2017) (Cesareni et al., 2017, p. 9) (Seo, 2007) (De Wever et al., 2009) (Wise et al., 2012)</td>
</tr>
<tr>
<td>skeptic, moderator, searcher, and many more</td>
<td>(Aloni &amp; Harrington, 2018) (Hou, 2012)</td>
</tr>
<tr>
<td>The forum utilizes Socratic prompts (Probing questions designed to engage</td>
<td>(Lee et al., 2014) Yang et al., (2005)</td>
</tr>
<tr>
<td>the learner in thorough examination)</td>
<td></td>
</tr>
<tr>
<td>The forum hides posts from other students before their first post</td>
<td>(Lieberman 2019)</td>
</tr>
<tr>
<td>The course includes fewer but higher quality forums</td>
<td>(Lieberman 2019) (Page et al 2019)</td>
</tr>
<tr>
<td>The course includes ungraded space for exploration and building community</td>
<td>(Lieberman 2019) (Sinha, Roberts, &amp; Jane, C. 2022)</td>
</tr>
<tr>
<td>(example, course question forum)</td>
<td></td>
</tr>
<tr>
<td>The forum technology provides for multiple methods of response</td>
<td>(Lieberman 2019)</td>
</tr>
<tr>
<td>The forum provides learners the opportunity to start their own threads</td>
<td>(Lieberman 2019)</td>
</tr>
<tr>
<td>later in course</td>
<td></td>
</tr>
<tr>
<td>The forum provided multifaceted responses. Examples include a complement,</td>
<td>(Lieberman 2019)</td>
</tr>
<tr>
<td>a comment, and a question.</td>
<td></td>
</tr>
<tr>
<td>The forum included modern technology like social media, graphics, and or</td>
<td>(Lieberman 2019)</td>
</tr>
<tr>
<td>video</td>
<td>(Castellanos-Reyes, 2020)</td>
</tr>
<tr>
<td>The forum included rich content prompts such as video or word clouds</td>
<td>(deNoyelles &amp; Reyes-Foster 2015)</td>
</tr>
<tr>
<td>The forum includes varied question types. Examples include playground,</td>
<td>(Ertmer et al., 2011)</td>
</tr>
<tr>
<td>shotgun style, critical incident, and divergent questions.</td>
<td></td>
</tr>
<tr>
<td>The forum utilizes a combination of techniques (Scaffolding and rubric or</td>
<td>(Giacumo &amp; Savenye 2020) (Kalelioğlu &amp; Gülbahar, 2018)</td>
</tr>
<tr>
<td>Socratic and rubric)</td>
<td></td>
</tr>
<tr>
<td>The grading rubric has undergone a reliability and validity norming process</td>
<td>(Schoepp et al., 2018)</td>
</tr>
<tr>
<td>The forum's timing of due dates rotates and is based on student behavior</td>
<td>(Carrió 2022) Ümmühan Avcı &amp; Esin Ergün (2022)</td>
</tr>
<tr>
<td>rather than a set calendar to encourage engagement</td>
<td></td>
</tr>
</tbody>
</table>
### APPENDIX D: INNOVATIVE FORUM SETUP IDEAS, MORE RESEARCH NEEDED

<table>
<thead>
<tr>
<th>Idea</th>
<th>Reference(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create a forum topic utilizing The Six Thinking Hats (Bono, 1985)</td>
<td>(Kalelioğlu and Gülbahar 2018)</td>
</tr>
<tr>
<td>Use brainstorming, Socratic seminar or anyone here an expert technique</td>
<td>(Kalelioğlu and Gülbahar 2018)</td>
</tr>
<tr>
<td>Create an online debate</td>
<td>(Li &amp; Jeong, 2013)</td>
</tr>
<tr>
<td>Utilize WebQuests, nominal group technique, or invited expert</td>
<td>(Kanuka et al., 2007)</td>
</tr>
<tr>
<td>Build a textbook assignment using the forum tool</td>
<td></td>
</tr>
<tr>
<td>Use peer review, engagement measurement, and statistical tools in rubrics</td>
<td>(García-Molina et al., 2021)</td>
</tr>
</tbody>
</table>
## APPENDIX E: INSTRUCTOR FACILITATION BEST PRACTICES

<table>
<thead>
<tr>
<th>Best Practice</th>
<th>Reference(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor has a clear role in introducing the forum</td>
<td>(Mazzolini and Maddison 2007) (De Zoysa et al. 2019)</td>
</tr>
<tr>
<td>Instructor does not provide information as a participant</td>
<td>(Mazzolini and Maddison 2007) (De Zoysa et al. 2019)</td>
</tr>
<tr>
<td>Instructor is a facilitator of discovery and dialogue</td>
<td>(Mazzolini and Maddison 2007) (De Zoysa et al. 2019)</td>
</tr>
<tr>
<td>Instructor weaves forum with other course elements</td>
<td>(Mazzolini and Maddison 2007) (De Zoysa et al. 2019)</td>
</tr>
<tr>
<td>Instructor address content later in the forum</td>
<td>(Mazzolini and Maddison 2007)</td>
</tr>
<tr>
<td>Instructor enhances collaboration to increase learning.</td>
<td>(Castellanos-Reyes, 2020)</td>
</tr>
<tr>
<td>Instructor provides both positive and negative feedback</td>
<td>(Wang et al., 2011)</td>
</tr>
<tr>
<td>Instructor amplifies key posts</td>
<td>(Wang et al., 2011)</td>
</tr>
<tr>
<td>Instructor addresses incorrect posts</td>
<td>(Wang et al., 2011)</td>
</tr>
<tr>
<td>Instructor discourages and addresses cluster posting</td>
<td>(Lieberman 2019)</td>
</tr>
<tr>
<td>Instructor is highly available and provides significant and timely feedback</td>
<td>(Page et al. 2019) (Larkin 2002)</td>
</tr>
<tr>
<td>Instructor login is frequent and promotes interaction</td>
<td>(de Lima et al., 2019)</td>
</tr>
<tr>
<td>Instructor encourages accountability</td>
<td>(Larkin 2002)</td>
</tr>
<tr>
<td>Instructor evaluates the depth of the post rather than the content</td>
<td>(Lieberman 2019) (Page et al. 2019)</td>
</tr>
</tbody>
</table>
## APPENDIX F: POST FORUM EVALUATION

<table>
<thead>
<tr>
<th>Best Practice</th>
<th>Reference(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learners were deeply engaged, and the forum did not become an attendance and</td>
<td>(Garrison, 2017)</td>
</tr>
<tr>
<td>participation checkpoint</td>
<td></td>
</tr>
<tr>
<td>Learners perceived the discussion forum as an integral part of the course</td>
<td>(Keiper et al., 2020; Yang et al., 2017)</td>
</tr>
<tr>
<td>Learners engaged in critical reflection over descriptive or dialogic or non-</td>
<td>(Whipp, 2003)</td>
</tr>
<tr>
<td>reflection</td>
<td></td>
</tr>
</tbody>
</table>
CONSCIOUSNESS-BASED MANAGEMENT EDUCATION FOR A FLOURISHING BUSINESS ECOSYSTEM

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ABSTRACT

Business is a powerful force that should be used for the flourishing of society. Business Management education has been continually reinvented around innovation as the key theme. However, how would management students reinvent themselves on a continual basis to meet the challenges of a changing technological and business landscape. The mental demands of modern life require not just “a new set of skills to be put in” but a new threshold of consciousness. Consciousness-based management education (CBME) emphasizes development of the consciousness of the knower. This paper discusses how CBME can spur creativity, collaboration, critical thinking, and problem-solving skills in business students.
INTRODUCTION

Grand challenges facing humanity require a higher level of consciousness to experience and operate from a level of total inter-connectedness of life (LaLoux, 2014; Tsao & Laszlo, 2019; Johansen, 2020; Laszlo et al. 2021; Maheshwari, 2021a; Polman & Winston, 2021). Business organizations are undergoing revolutionary changes from exponential development of technologies of production, distribution and consumption (Senge et al., 2010). Management schools have been evolving rapidly to engage with the opportunities and threats posed by a rapidly evolving socio-technical environment (Datar et al., 2010). The qualities needed in the exemplary manager of the future could be the empathizing and synergizing quality, the visionary and transformative quality, the moral quality (Laszlo et al., 2021), and more. These and similar qualities can be subsumed under the idea of an integral (Wilber, 2000), holistic (Dhiman, 2019), higher consciousness (Maheshwari, 2021a), total interconnectedness (Tsao & Laszlo, 2019), and oneness view of the world (Laloux, 2014). The new manager ideally would be self-aware, self-regulating, and flexible enough to work at higher levels of consciousness (Maheshwari, 2021a). Tsao & Laszlo (2019) propose a new model of leadership based on a consciousness rooted in the convergence of quantum sciences and spirituality. This may be key to development of pro social and environmental behaviors towards oneness and flourishing in the world. Managers need to unboundarize from their self-limiting beliefs and tap into their own unbounded potential and that of their teams (Maheshwari, 2021). In essence, managers need to develop a higher level of consciousness, that transcends their ordinary states of consciousness and access the higher states of consciousness where one can experience the pure infinite potential within oneself (Maharishi, 1995). The Covid-19 pandemic has disrupted business schools worldwide through the shift to emergency remote teaching (Krishnamurthy, 2020).

This paper unfolds some of the challenges on this path: (a) What are the structural and personal rewards and incentives, as well as obstacles and challenges, for organizations to develop and deploy higher consciousness in managers? (b) What new concepts, holistic and functional, are emerging to model the future of higher levels of consciousness in business schools and organizations? (c) How would business educators add value to students and workers in a technology assisted environment? (d) How will business education help students to prepare to use advanced tools such as Artificial Intelligence, Robotics, and Genetics, and integrate them in their own consciousness?

CHALLENGES TO BUSINESS EDUCATION SYSTEMS AND SOLUTIONS

Huisman and Wende (2022) highlight contemporary issues and concerns in higher education system, such as that expansion of diversity can be experienced as fragmentation by some. Similarly, promoting access & equity can be experienced differently by meritocratic elitist communities. It can be challenging to optimize for micro (teaching), meso (organizational), and macro (system) levels simultaneously. Developing infrastructure, networks and technology with great acceleration in technological developments can consume attention and resources. Doyle & Brady (2018) suggest that the higher education system should be reframed as an evolving system with emergent business models. They make a case for alternative organizational theories or models that perceive higher education organizations as emergent entities in which change is continuous,
often unpredictable and arising mainly from local interactions. The higher system needs to evolve to meet the emergent needs of the local marketplace in a strategic and continual manner (Manning, 2017).

There are many challenges that business education may face in the next 25 years:

1. **Evolving nature of work**: The nature of work is changing to meet rapidly evolving business models and workplace technologies. Workers may need to become Problem-solvers who are Adaptive, Creative, and Entrepreneurial (PACE) (Bolles, 2021). Hannah Arendt (2005) differentiates between labor, work and action. From laboring for one’s personal needs, to working to produce artifices and services for others, to creative action that is fulfilling for oneself and simultaneously evolutionary for the world, there is a range of perceptions and motivations that depend upon one’s level of consciousness. Creative actions are driven by intrinsic motivation but can be easily killed by over-control (Amabile, 1998). Business education would need to ensure that students are equipped with the skills and knowledge that employers are looking for in the evolving globalized workplace, and yet the students should retain a strong sense of personal creative agency. Business schools can build partnerships with employers by developing relationships with local and global companies and organizations and create apprenticeship programs that allow students to take on real-world projects in a safe and creative learning environment.

2. **Students and communities**: The higher education system will need to evolve to cater to an increasingly diverse set of students at all career stages who need to learn continuously to evolve their skillsets (Bolles, 2021). Business education would need to accommodate and support students from a wide range of characteristics, by demography and psychography. Business schools can foster diversity, equity and inclusion by recruiting and retaining a diverse faculty and staff. Business schools can also incorporate critical thinking, problem solving and leadership skills into the curriculum, along with a wide range of skills through providing students with opportunities to practice these skills. Additionally, educators can incorporate community projects into the pedagogy to develop collaborative experiential opportunities.

3. **Science and Technology**: Technological landscape is growing and evolving exponentially, and is driving monumental change through a convergence of Artificial Intelligence (AI), robotics, metaverse, genetics, and more technologies (Diamandis & Kotler, 2020). Business education will need to ensure that students are rapidly skilled with the necessary theories, tools, experiences, and meta-skills to succeed in an exponentially-evolving technological landscape. Business schools will need to ensure that students are exposed to the latest technological advancements and equipped with the necessary digital skills to succeed in the modern workplace. This can be done by incorporating courses and modules on topics such as data analysis, digital marketing, and digital transformation into the curriculum. Business schools can provide students with opportunities to gain practical experience and skills through internships, laboratories, and other projects. Additionally, professors can use technology in the classroom, such as through online simulations and prototyping projects, to give students hands-on experience with the latest tools and technologies.
4. **Planet and society**: The planet is facing many grand challenges such as climate change, social inequality, bio-extinction and more. Great attention needs to be paid to sustainability and social responsibility (Polman & Winston, 2021). Business education would need to sensitize students with sustainability (Heaton, 2016; Rimanoczy, 2020), empathy (Heaton & Travis, 2013; Pavlovich, 2019), and other mindsets to address these challenges in a responsible manner. Educators can incorporate sustainability mindset and social responsibility (Kassel and Rimanoczy, 2018) into immersive learning opportunities. Business schools can offer courses and modules on topics such as corporate social responsibility, sustainable business practices, and impact investing.

5. **Economics and Markets**: The rapidly rising cost of higher education puts pressure of student finances as well as on the viability of business schools. Business education will need to be creative to offer great yet affordable education to suit the diverse needs of their students, workers, and employer partners. Business schools may need to develop tiered education models, such as onsite and online with different cost structures. Business schools will need to be great at what they do, or alternative modes of serving those needs will emerge as competition. There have been suggestions that driven by market pressures, the vertically integrated business model of universities may be unbundled along the lines of instruction, testing, credentialing, and social skills. For example, MOOCs such as Coursera present severe challenges in terms of creating an alternative marketplace for higher education, that changes the delivery, certification and economics of these innovations which could be rapidly disseminated and generate impact across the business education system globally (Dieleman et al., 2022).

6. **Spirituality and Well-Being**: Workplace well-being refers to the overall health, happiness, and satisfaction of employees and encompasses physical, mental, and emotional health, work-life balance, and job satisfaction (Maheshwari, et al. 2022). Workers need to be freely able to practice their self-development and personally meaningful spiritual practices (Fry, 2003) to develop their own higher sense of purpose in life (Nader & Maheshwari, 2023). These self-care skills could promote psychological safety, resilience and anti-fragility. Transcendental Meditation (TM) and mindfulness are among the practices that have been shown to promote relaxation, focus, and overall well-being (Cranson et al., 1991; Travis & Shear, 2010). Business school facilities designed according to consciousness-based principles can also facilitate health and well-being (Maheshwari, et al. 2022).

**ADVANCED TECHNOLOGIES AS A FACILITATOR IN SOLVING THE PROBLEMS**

It has been suggested that powerful evolving digital technologies such as Artificial Intelligence and multiverse can transform the challenges facing management education in terms or content, delivery, and certification.

1. **Delivery of Personalized Learning**: AI-powered systems can analyze student activity data and provide personalized recommendations for learning topics, materials, activities, and assessments. This can ensure that students are learning at their own pace and in a way that
is most effective for them. AI can also predict which students are at risk of falling behind in which aspects, and provide early interventions to help them succeed.

2. Richer Immersive environments and Simulations: Virtual / Augmented / Extended reality and simulations can provide students with realistic, immersive experiences that allow them to learn and apply in a safe and controlled environment, with animations that create an experience of speaking with inventors and historical figures themselves. AI-powered chatbots and tutors can provide students with instant answers to their questions and help them to stay on track with their learning.

3. Automated and Adaptive Assessment and Feedback: AI-powered systems can automatically assess student work and provide instant detailed and personalized feedback. This can enable students to quickly understand their strengths and weaknesses. AI can also adapt the level of difficulty of assessments to the individual student's level of understanding and can help to ensure that students are challenged but not overwhelmed. AI can thus release educators to focus on the more interpersonal aspects of teaching, such as providing mentoring, coaching, and creating a more engaging and inclusive classroom environment.

How would business educators add value to students and workers in such a technology assisted environment. How will business education help students to prepare to use the advanced tools and integrate them in their own consciousness? MacBride & Hackney (2003) called out the need for developing integrative principles for teaching, such as:

1. Establish a series of generic frameworks or patterns in pedagogical approaches that can be applied to changing technologies and business practices. Derive these bottom-up from observing practice, and top-down drawing on theories across disciplines.
2. Educate the students in critical thinking. Apply critical thinking to the selection of topics and sources.
3. Seek to provide a psychologically safe learning environment where the students come to their own understanding and generates ownership of principles and practices for themselves.

DEVELOPING THE KNOWER IN HIGHER EDUCATION

Developing the knower in higher education can refer to the process of cultivating meta-skills such as critical thinking, problem-solving, and self-directed learning in students. Here is the broad set of ways that business educators can use to develop the knower in higher education:

1. Process: Promote an active self-directed and reflective learning process. Encourage students to take responsibility for their own learning by setting personal learning goals, creating their own learning plans, and evaluating their own progress. Students could be encouraged to actively engage with the educational content by participating in class discussions, group projects, and creative hands-on activities. This could develop critical thinking and problem-solving skills, as well as love for learning. Students could further reflect upon and refine their own personal goals based on their self-identified strengths and weaknesses.
2. **Product**: Provide a creative collaborative problem-solving based learning environment where there are opportunities for students to work together on real-world problems and problem-solving activities. Collaborative learning can help students to develop teamwork, communication and leadership skills, as well as the confidence to handle large projects that require multiple skills in a real-world context. Design a flexible personalized curriculum that would be adaptable to changing needs, interests, and trends for every student.

3. **People**: Create close mentorship relationships with feedback loops for keeping the learning process on track. Provide students with opportunities to work closely with mentors or advisors who can guide and support their developing a deeper understanding of their chosen field and gaining insight into potential career paths.

**CONSCIOUSNESS BASED MANAGEMENT EDUCATION**

Llewellyn & Pearson (2011), based on the teachings of Maharishi Mahesh Yogi (1963, 1995), present a Consciousness-based system of education. It places primary emphasis on the knower, i.e. on developing the knower’s potential for learning from within (Figure 1). In comparison, the Learning paradigm focuses on improving the student’s process of knowing/learning, and the Instruction paradigm focuses on efficiently communicating the known/knowledge to the students. Consciousness-based education (CBME) paradigm proposes that all knowledge should be integrated in the consciousness of the student/learner/knower. The quality of perception and knowledge is different at different states of Consciousness.

![Figure 1: Paradigms of Education (Source: Llewellyn & Pearson, 2011)](image_url)

CBME emphasizes the development of one’s consciousness as the primary means to enhance learning and personal growth (Heaton, & Heaton 2018). Eastern Vedic Spiritual traditions as well as quantum field theory provide significant support to the proposition that Consciousness is all there is, and the universe is one unbounded ocean of consciousness (Maharishi, 1963; Nader, 2021). Consciousness is the field of infinite correlations, where everything is connected to everything else (Nader, 2015). Further, consciousness as the source of all the laws of nature is accessible in one’s own physiology (Nader, 1994). There are a few key principles of CBME (Dilbeck, 2011):

1. **Holism**: CBME views the individual as a whole, rather than as separate parts. This holistic approach incorporates academic, personal, and professional development to create a well-rounded individual. CBME incorporates interdisciplinary approach that links different
academic disciplines together and integrate knowledge across different fields. CBME aims to develop social responsibility, by encouraging students to take action and to contribute to the well-being of society (Heaton & Heaton, 2018)

2. Self-awareness: CBME emphasizes the development of self-awareness, which helps develop the ability to understand one’s own thoughts, feelings, and behaviors, and strengths and weaknesses. This can help students to understand their own learning process and to improve their academic performance and future work.

3. Transcendence: The regular practice of Transcendental Meditation (TM) is the key to the effectiveness of CBME. TM technique helps students transcend their normal thinking process to reach a state of inner unbounded peace and calm, which can improve self-awareness, focus, and creativity (Maharishi, 1995).

4. Creativity: Consciousness can be considered the basis of creativity (So & Orme-Johnson, 2001). CBME can thus develop student creativity, by helping students to tap into their inner infinite potential and to think in new and innovative ways (Travis, 1979; So & Orme-Johnson, 2001).

5. Resilience: CBME aims to develop resilience, by helping students to deal with stress, anxiety and other negative emotions (Travis et al. 2009).

DEVELOPMENT OF CONSCIOUSNESS

Human beings can experience many states of consciousness beyond the ordinary states of waking, dreaming and sleeping. Waking state is the normal state of consciousness that we experience when one is awake and engaged in daily activities. Sleeping state is the state of consciousness that one experiences when asleep. Dreaming is the state of consciousness that one experiences during REM sleep, when one has vivid dreams. There is a fourth and higher state of consciousness called Transcendental Consciousness (TC). It is a state of pure consciousness, a state of restful alertness and inner peace (Wallace, 1970). TC can be reached through the practice of Transcendental Meditation (TM). The next higher state is cosmic consciousness (CC), when the absolute reality of TC is available even when one is in waking state. Enhanced cosmic consciousness is a state of finest perception, where there is barely any distinction between the outer and inner reality. The highest state is of Unity Consciousness, where everything is perceived as a reverberations of oneself. This is the state that is reported by seers as the ultimate state of oneness. The seven states are described in terms of awareness of Self and the world in Table 1.

<table>
<thead>
<tr>
<th>State of Consciousness</th>
<th>Self-Awareness</th>
<th>Content of Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sleep State</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Dream State</td>
<td>None</td>
<td>Illusory</td>
</tr>
<tr>
<td>Waking</td>
<td>Individual Ego (Lower Self)</td>
<td>Perceptions, thoughts, feelings</td>
</tr>
<tr>
<td>Transcendental Consciousness</td>
<td>Unbounded Pure Consciousness (Higher Self)</td>
<td>None</td>
</tr>
</tbody>
</table>
Maharishi (1978) describes the transcendent (4th state) as the absolute, non-changing, non-variable, eternal, infinite, unboundedness of life - which is the inner core of everyone's life. When Consciousness is left free to experience itself, that is transcendence. The intellect becomes aware of itself through transcending itself. By direct unmediated experience one can realize the true self as beyond time and form, beyond thoughts and objects. Universality and individuality are two simultaneous aspects of the intellect. There are impulses of the transcendent as much as there are impulses of ego.

**V-THEORY OF TRANSCENDENCE**

V-theory provides a simple 2-step framework for how one could transcend and develop their consciousness to higher levels (Maheshwari, 2021a). V-Theory shows that the universe can be alternately experienced at two different levels: in its dynamic diversity of impulses of the ego at the top of the V, and its silent transcendental unity at the bottom of the V (Figure 2).

![Figure 2: V-Theory: A 2-step model of Transcendence](image)

The upper level is the level of diverse dynamic action. The bottom level is the level of the transcendent, the source of pure potential. The path to understanding and participating in the continuous transformation of the world at the top of the V is through experiencing the silent unity at the bottom of the V. The first step is to choose a path or practice to transcend surface reality and...
connect with the pure consciousness at the bottom of the V. It is called the inward stroke. Staying for a certain period of time at the bottom of the V, helps bring deep rest and order to the individual mind. The second step of the V is to return to the dynamic surface reality. This is called the outward stroke. Multiple practices may be considered in the context of a simple 2-step V-model of an inward and outward stroke. Transcendence can be achieved effectively through TM (Travis and Shear, 2010). Other approaches from other traditions of transcendence too could be conceived through V-theory with the premise that the Consciousness at the bottom of the V is primary, self-referral, and independent of matter.

Almost all spiritual traditions prescribe their own means of transcending (Wilber 2014). Some suggest prayer and devotion as a way of reaching God. Others suggest sacred practices to cleanse oneself and reach the transcendent states. There are many techniques of meditation coming from many Eastern traditions including Vedic, Buddhist, Chinese, Zen and others. Some meditations are premised on their being an ultimate reality, for example Vedic and Yoga Sutras based meditations. Regular practice of TM technique by college students has been shown to lead to higher brain integration score, which is indicative of lower stress and higher creativity (Travis et al., 2009). Once the student develops higher creative capacity, they can naturally grow their knowledge organically and holistically, with the least amount of effort and a great sense of accomplishment and fulfillment. The way to enhance integrative learning is thus to enliven the student’s consciousness.

TRANSCENDENTAL MEDITATION (TM) AND BUSINESS EDUCATION

TM helps individuals experience the deep silence within, which helps achieve a state of deep relaxation and inner calm. There is significant research on the benefits of TM in terms of enhancing educational effectiveness (Cranson et al., 1991; Rosaen & Benn, 2006). TM may be able to help business student in the following ways:

1. Improving focus and concentration: By practicing TM, individuals may be able to improve their ability to focus and concentrate, which can be beneficial for engaging in whatever work they choose to do.

2. Enhancing creativity: TM has been shown to increase creativity and problem-solving abilities, which can be beneficial for engaging in activities that require innovative thinking (So & Orme-Johnson, 2001).

3. Reducing stress and anxiety: TM has been shown to reduce stress and anxiety, which can be beneficial for some students in engaging in challenging or stressful situations (Travis et al., 2009).

4. Improving overall well-being: TM has been shown to improve overall well-being and quality of life, which can be beneficial for a flourishing life.
DISCUSSION

CBME suggests that all business management education should be integrated with the knowledge of the Self, and all integration of knowledge happens at the level of the student’s consciousness. Key principles around knowledge, process of knowing, and the knower, can help achieve this integration. One should know that thing (Self) first, by knowing which everything can be known. The growth of self-awareness is akin to the enlivening of all the laws of nature in one’s consciousness. The value of enlivening natural law however extends beyond the time spent during education and can set the student up for success in lifelong learning.

Transcendence can help to unlearn unhelpful practices and invent new and vibrant practices that align with the highest principles of nature itself. Maharishi (1995) says that enlivenment of one’s consciousness evokes infinite power and creativity. Students can thus learn to be more self-aware, be open to more possibilities, and even invent their own integrative learning frameworks. Enlivening one’s self-awareness can be accomplished through a regular practice of natural self-development techniques such as TM. Maheshwari (2021b) showed how CBME principles can be applied to deliver integrated learning for students for a technical business subject such as Data Analytics. With greater awareness of their own interests and capabilities, students may further dive into the fields of management with a specific point of view and absorb knowledge from that field and become ready for work.

IMAGINING AN EVOLVED BUSINESS EDUCATION SYSTEM

A consciousness-based view of the world and of education in particular can open a wide canvas for imagination and research. Imagine business students in higher states of consciousness in a friendly learning environment where every student can flourish (Maheshwari, 2021a). It would be great to find ways to make this scenario palatable to business schools. Imagine business students as leaders guiding their teams do their work with joy and creativity, driven by a higher purpose (Nader & Maheshwari, 2023). Imagine an entire flourishing enterprise operating in harmony and effectiveness where the future leaders would be both emotionally grounded and highly adaptable to change (Laszlo & Brown, 2014). It would be great research to explore how to make these social and sustainability scenarios happen. How can one better enable students to adapt to environmental changes, integrate new ideas, purify those ideas and influences that are not helpful, and grow their own selves in a healthy way. How can one better enable students to develop healthy habits to keep themselves centered, vigorous and strong. How can one better enable students to lead with emotional intelligence and fully embrace and exhibit exemplary leadership practices: model the way, inspire a shared vision, challenge the process, enable others to act, and encourage the heart (Kouzes & Posner, 2003). How can one better enable students to exhibit high self-efficacy and embrace the concept that giving is the basis for receiving. How can one better enable students to practice gratitude on a regular basis, and practice a sense of balance in life.
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A CASE STUDY: THE STRUGGLE OF PROFESSIONAL GOLF TO ATTRACT MILLENNIALS

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ABSTRACT

Matthew grew up in North Carolina, spending weekends playing golf. After graduating from college, Matthew wanted to work in the golf industry, although it was declining. He began working as a club manager at a private golf course in North Carolina, a course that was struggling due to low membership and play. Matthew specifically noticed a decrease in the number of Millennials playing golf and reached out to the US Golf Association about his concerns. The Association’s Board of Directors hired Matthew and tasked him with researching the problem, presenting a detailed report about the low participation among Millennials, and developing strategies to attract this customer segment.
Matthew fell in love with the sport of golf at a very young age. Growing up in North Carolina, Matthew spent every weekend on the golf course with family playing golf. His family would travel to different places in North Carolina to play other courses. When Matthew was young, Saturday and Sunday golf was a family tradition that was cherished. The passion for the game continued throughout high school and college, as Matthew played for his school teams.

After graduating from college, Matthew knew he wanted to continue working in the golf industry, but noticed that the number of golf courses was steadily declining. Rocky Mount Golf Course is a relatively high-end private golf venue, which had slowly grown (business-wise) since its opening in 2000. The course attracted golfers from the surrounding areas but also by-passers who were on the way from the Metro DC Area to either South Carolina or Georgia to play one of the master golf courses. In addition, corporate and charity events held at the course had also grown, both in the number of players participating in the events and in the number of sponsors supporting the events. Nevertheless, in the last ten years, the golf course saw a slow decline in its revenues and membership, which slightly improved during the Pandemic.

It was the Autumn of 2023 and Matthew, the club manager, was reflecting on yet another business year at the Rocky Mount Golf Club in North Carolina. The Golf Club, which had seen a lot of growth in the early 2000s and some growth during the Pandemic, was experiencing a substantial decline over the last two years. Membership numbers were declining, tournament revenues were dropping, and golfing during weekdays was very slow due to the number of retirees interested in golf declining. Matthew couldn’t help but wonder if his days were numbered at the club.

Matthew’s concerns about the decline in rounds played and the corresponding decline in membership fees, merchandise sales, and equipment sales were not the only problems. The course also experienced a loss in the food and beverage sales of the club. There was also a need to update the clubhouse to keep the existing customers but also attract outside event bookings and catering. Matthew was especially worried about a decrease in the number of younger members subscribing to and playing golf.

The decline of younger people playing golf would result in an additional drop in club memberships, thus resulting in more golf courses closing around the country. Matthew knew that this problem had to be resolved in order to have a sustainable future for golf in the United States. Matthew was so worried about the decline of the Millennial segment that he contacted the Board of Directors of the US Golf Association to highlight this problem. The US Golf Association is the governing body of golf in both the US and Mexico (United States Golf Association, 2022). Part of the US Golf Association's role is to sustain the growth of the sport. Matthew expressed his willingness to work with the Association to investigate the reasons for the decline and design a strategy to make the sport more popular, especially among young people. Millennials are the 27 to 42 population segment that will eventually, as Baby Boomers (59-77) and Gen Xers (43-58) are aging, drive the economy (Beresford Research, 2023; Dimock, 2019). Naturally, as Matthew was researching this segment the following questions crossed his mind: How should the industry grow this segment? How could one promote the sport of golf to Millennials? How would Matthew research this market segment and come up with a winning business strategy?

The Board of Directors of the US Golf Association put Matthew in charge of Grass Roots Golf Programs. Matthew was given a month to research the problem, and then present a detailed report about the reasons for the alarmingly low participation numbers among Millennials and develop strategies to attract this customer segment to the sport.
Golf Participation Trends

Matthew’s first day on the job was February 1st and he needed to have a report ready for the Board by the beginning of March. This did not give Matthew a lot of time, but he believed that looking at the last four years of golf participation data and membership statistics and industry trends across the United States would provide him with enough information to kickstart his work. Over the next week, he spent countless hours researching the current situation.

His initial findings confirmed his concerns regarding a steady decline in participation and the number of golf courses. As a matter of fact, the golf industry experienced a 12-year decline that saw participation drop from 29.8 million players in 2006 to 23 million players in 2018. That translates into an average 3.4% drop every year. However, the pandemic seemed to spur an uptick in participation numbers, and by 2020 25.8 million people had played at least eight rounds of golf during the year, which was an increase of approximately 500,000 from 2019 (Ariella, 2023). Additionally, the number of golf courses had declined from 10,690 thousand courses in 2012 to 9,470 thousand in 2022 (Ariella, 2023). This signals a downturn in national golf participants.

As far as the increase during the pandemic was concerned, Matthew's research showed that golf was one of the few businesses that were helped by the COVID pandemic. Golf was one of the few sports that were deemed safe to play during the early days of the Pandemic. Golf was one of the few activities that allowed for social distancing and saw a 6.2% increase in the number of rounds played from the previous year (CNN, 2021). The lack of activities competing with the golf industry opened the door for new participants and increased interest in the sport. According to a CNN (2021) report, 2020 saw the largest increase in interest in golf since the debut of Tiger Woods in 1997.

This pandemic influx precipitated a significant increase in golf equipment sales in 2020 (CNN, 2021). The CNN (2021) report stated that the months of July and August 2020 had record retail sales of golf equipment. Lastly, the report also noted that golf TV viewership also increased during the same time. The PGA Championship was the highest-viewed golf event in the last five years. After a 12-year decline, the golf industry finally saw a growth in revenue and membership.

The golf industry’s growth during the COVID-19 Pandemic gave Matthew some ideas as to why the decline happened in the first place. He realized the golf industry had a lot of competition from other sports and entertainment consumed by the public. COVID participants realized that golf was not boring and challenged the participants, but was not a focal point of the media. Golf was a form of entertainment for the people who played it.

Reasons for Non-Participation

Now that Matthew was able to identify the trends in golf participation, it presented him with some possible reasons why the Millennials did not play. According to his research, four key areas of concern emerged as to what has created the lack of golf participation. These areas include competing new sports, cost of equipment and access, time commitment to play golf, and lack of social media presence. A more in-depth investigation of these areas would help Matthew come up with ideas and strategies for how to proceed with the promotional programs.

Matthew knew that in order to proceed, he needed to first understand his target audience. Millennials are a consumer segment that has considerable purchase and trend-setting power. This
is especially true when it comes to recreational sports such as golf. Golf has a hard time recruiting this fickle consumer segment; the sport struggles to fully capture and engage Millennials. Millennials are usually defined as the generation who was born between the years of 1981 and 1996 (Solomon, 2020), therefore being labeled Millennials. The generation was born into the time period in which personal computers and the Internet became a prevalent feature of the communication landscape, the Berlin Wall fell, and globalization established itself as an important trade structure. In addition, social media started to proliferate. Millennials make up approximately 22% of the US population (approximately 72 million) (Frey, 2020) and their spending power is around 2.5 Trillion dollars (Millennials Will Lead Global E-commerce Spending in 2023, New Study Reveals, 2023).

According to a 2010 Pew research survey, some of the life priorities of Millennials are being a good parent, having a successful marriage, owning a home, having a high-paying career, and having lots of free time. In addition, the Pew Research (2010) discovered that the use of technology, affinity for music and pop culture, consciousness for brand clothing, good education, and use of social networks, make this generation different. It is important to unpack these facts in terms of golf as a sport in order to target and attract this consumer segment—what does this mean for golf? A 2023 study by ESW revealed that, compared to Gen Z, Gen X, and Baby Boomers, Millennials are more likely to increase their online spending for beauty products, health products, luxury goods, apparel and footwear, and consumer electronics in the near future (Millennials Will Lead Global Ecommerce Spending in 2023, New Study Reveals, 2023). In addition, the results of the 2023 ESW research illustrated that Millennials, compared to the other age cohorts, will undertake more luxury shopping in the coming years. Luxury shopping can translate into more business for the sport of golf if strategically coordinated. Millennials make purchase decisions based on personal connections and products that convey social responsibility as well as spend money on hobbies, experiences, electronics, and clothing (Costin, 2019). That is where the golf industry can establish a long-term relationship with this shopper segment by appealing to their interest in hobbies and being brand-conscious and capitalizing on their purchase preferences, economic influence, and shopping potential.

Matthew's first concern regarding the lack of golf participation may be the result of new emerging sports. Matthew noted several recreational sports that were competing for the attention of Millennials, such as disc golf, kickball, cycling, and paddle sports (canoeing, paddle boarding, etc.). In this respect, pickleball has emerged as the biggest competitor for recreational sports like golf. In 2022, it is estimated that 36.5 million Americans played pickleball (Trowbridge, 2023). According to Trowbridge (2023), its popularity comes from its fast-pace, social nature, and ease of learning and play. How can golf compete with a sport that has only a few rules, takes 15-20 minutes to play, and has low startup costs?

As Matthew noted about pickleball, the length of time of a match is approximately 15-20 minutes, which allows the participants to be involved in numerous other activities. This led to the second area of concern, which was the time commitment to play a round of golf. Multiple factors impact the amount of time it takes to play an 18-hole round of golf. Matthew noted that factors such as the number of players (1-4 players), weather, skill of the players, and pace of the game would influence the amount of time a person would spend playing one round of golf. According to his research, a round of golf could be anywhere from 2 hours and 30 minutes for one golfer to 4 hours for four golfers (Hay, n.d.). Unfortunately for golf, sports with a faster pace are more
popular (Kahoro, 2023b). The length of time it takes to play golf encourages participants to look for alternative, less time-consuming activities.

A third area of concern that Matthew focused on was the cost of playing the sport and the cost of the equipment. The average cost for 18 holes varies from State to State and depends on whether the club is private or public. Matthew found costs as low as $37 per round on some courses in Ohio and as high as $111 per round on some courses in Hawaii. Also, some private clubs charge up to $150. The bottom line is that the average for an 18-round of golf in the United States is about $50 (Nickel, 2022). This does not include the cost of a set of clubs, golf balls, and tees. A beginner would need a set of clubs that included everything from the driver to the putter, which would cost around $600 with approximately another $40 to $50 for golf balls and tees (Corley, 2023). Matthew believed the cost of golf, compared to other recreational activities, discouraged many people from playing.

The final concern for the sport is related to technology. The Millennials grew up with technology. Millennials have smartphones and are always connected to friends on social media (Why Golf Must Attract Millennials, Pacesetter, 2020). Golf’s social media presence was rather limited. Golf professionals were not connected to the public. Fans do not follow and support any one golfer anymore like they did with Tiger Woods in the late nineteen-nineties. Matthew’s research showed that the top two golfers followed on social media were not even the top players. Even though his success is waning, Tiger Woods remains the golfer with the strongest social media presence. Paige Spiranac, who won the Cactus Tour and Ladies European League, no longer plays golf professionally. However, Paige is a model and voice for women’s rights in the sport of golf (Kahoro, 2023a). Matthew believed, that established golf professionals, such as Rory McIlroy and Jordan Spieth, who regularly placed on the leaderboard, could be the key to reaching the Millennials.

Attracting Future Generations

Lastly, Matthew needed to research what was important to Millennials. He believed that understanding the preferences and values of this population would provide him with information on how to market golf to this segment. Reaching the Millennials required undertaking some changes in the sport of golf to make it more appealing. Who are the Millennials and what do they want?

Based on Matthew’s research about his target audience, four key areas emerged that are important to the Millennials. Those areas included: quicker play or events, more technology, healthier food options, and being more active on social media (Kahoro, 2023b). Matthew believed focusing on these areas would increase Millennial participation in golf and preserve the sport for future generations.

Matthew believed that Millennials value spending time with family, but understood the need to work to support their families. Millennials must balance their work- and family time with their recreational time. Golf needs to create plays or events that are less time-consuming (Kahoro, 2023b). Matthew's research uncovered that people were more attracted to shorter courses and playing fewer holes so that they could spend time on other activities (Kahoro, 2023b).

The Millennials are a generation who never knew of a time without technology. They have been connected all their lives. Matthew felt creating a technology-driven experience was important for the sport of golf. This would include everything from scheduling a tee time to the carts on the
course. Matthew expected that enhancing technology in all areas of golf would make golf more attractive to Millennials.

Realizing that the Millennial generation has always been connected, Matthew knew that an online presence was essential for reaching the younger population. Facebook, Instagram, and TikTok platforms are some of the best communication channels to reach this audience. The golf club Matthew is currently working for had no social media presence. The club had only a simple website. There was no mention of current events at the course except for flyers in the clubhouse and a weekly email update.

Lastly, the Millennial population had moved away from carb-rich and sugary food items (Kahoro, 2023b). The alcohol preferences had even changed. It was important to offer the food and drink options that appealed to this new generation. Matthew discovered that most Millennials drink wines and craft beers more than past generations (Millennials 21+ Say These Are Their Favorite Alcohol Brands, 2020). Matthew had to create a food menu for the club that included healthier food options and more targeted drink choices.

Matthew had done a lot of research and needed to submit a report to the board soon. He also had to present a promotional plan that would reach more (and was more effective with) millennials. At the same time, he also had to make sure that other market segments were not neglected as far as promotional efforts were concerned.

Case Study Questions:

1. What strategies should Matthew suggest to the Board of Directors to increase Millennial participation in golf?

2. How does a comprehensive marketing plan (STP analysis) for the service offered, the price charged, and the promotion sought look like?

3. How would a short-term promotional plan for the Golf Association look to make the sport more popular among young people? (Explain your answer)

REFERENCES


Frey, W. H. (2020, July 30). *Now, more than half of Americans are millennials or younger.* Brookings. https://www.brookings.edu/blog/the-avenue/2020/07/30/now-more-than-half-of-americans-are-millennials-or-younger/


CASE SYNOPSIS

This case introduces learners to Matthew, who fell in love with the sport of golf at a very young age, and, then, after college took a job as a golf course manager. However, recently Matthew noticed that fewer and fewer people participate in the sport of golf, especially Millennials. This decline was also felt at his golf course. Matthew was tasked by the US Golf Association to research the Millennial segment and develop a strategy that reaches and engages this customer segment with golf. Learners who study this case will gain an in-depth understanding of a key customer segment and develop a strategic targeting and positioning campaign (Segmentation-Targeting-Positioning STP analysis; Claessens, 2019). Working through the case will ask the learners to analyze the (recent trends in the) golf industry and its generational dilemma. In addition, learners will be asked to conduct a target market analysis of Millennials. Furthermore, case analysts will design a comprehensive marketing plan that attracts millennials and create a short-term promotional plan to make golf more popular among young people.

Keywords: golf participation, millennials, sports marketing, future golf trends, golf organizations

LEARNING OBJECTIVES

This case study will help students gain an understanding of the golf industry and the importance of developing a successful marketing plan. Students will achieve the following outcomes.

- How to analyze the golf industry and its generational dilemma.
- How to conduct a target market analysis of millennials.
- How to design a comprehensive marketing plan to attract young people.
- How to create a short-term promotional plan to make golf more popular among young people.

TARGET OUTCOME

This case study is appropriate for lower- and upper-division undergraduate students. Instructors can use this scenario to teach the importance of a marketing and business plan. The case study is suitable for courses in Sport Management, Sport Marketing, or Principles of Management.

RECOMMENDED READINGS

The recommended readings provide additional, statistical information about the golf industry. The Ariella, Hay, and Kahoro readings provide more details about the industry’s past and what may need to be changed to attract future generations. The Costin, Dimock, and Frey articles offer more insights about the Millennial generation. The key facts are provided in the case study, but students
can utilize the readings to analyze the data in more depth and apply the information to complete the STP analysis.


Frey, W. H. (2020, July 30). Now, more than half of Americans are millennials or younger. Brookings. https://www.brookings.edu/blog/the-avenue/2020/07/30/now-more-than-half-of-americans-are-millennials-or-younger/


ASSIGNMENT QUESTIONS

1. What strategies should Matthew suggest to the Board of Directors to increase Millennial participation in golf?

2. What does a comprehensive marketing plan (STP analysis) for the service offered, the price charged, and the promotion sought look like?

3. What would a short-term promotional plan for the Golf Association look to make the sport more popular among young people? (Explain your answer)
TEACHING PLAN

Following is a breakdown of an ideal class session (75 to 90 Minutes).

<table>
<thead>
<tr>
<th>Discussion Point</th>
<th>Time (Minutes)</th>
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<tbody>
<tr>
<td>Introduction</td>
<td>10</td>
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<tr>
<td>Assignment Question 1</td>
<td>20</td>
</tr>
<tr>
<td>Assignment Question 2</td>
<td>25</td>
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<tr>
<td>Assignment Question 3</td>
<td>20</td>
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<tr>
<td>Debriefing</td>
<td>15</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>90</strong></td>
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BOARD PLAN

**TARGET MILLENNIALS: CONSUMER ANALYSIS**

<table>
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<tr>
<th>PROS</th>
<th>CONS</th>
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<tbody>
<tr>
<td>- Green and recycling</td>
<td>- Lack of interpersonal skills</td>
</tr>
<tr>
<td>- Social media experts</td>
<td>- Too technology-focused</td>
</tr>
<tr>
<td>- Resourceful</td>
<td>- No multitaskers</td>
</tr>
<tr>
<td>- Collaborative</td>
<td>- Want balanced live</td>
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<tr>
<td>- Want to find a purpose</td>
<td>- Overconfident</td>
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**THE MARKETING PLAN**

- Business mission statement
- Objectives
- Industry SWOT and competitor analysis
- Target marketing strategy
- Marketing mix: product, price, place, promotion
- Implementation, evaluation, and control of plan

**THE PROMOTIONAL PLAN**

- Sales promotion
- Advertising
- Personal selling
- Public relations
- Social media

**ANALYSIS**

Assignment Question 1: What strategies should Matthew suggest to the Board of Directors to increase Millennial participation in golf?

Once one understands the golf industry, the next step in marketing planning is to understand the consumers, which are Millennials. In this respect, target marketing is when an organization finds and targets a market segment and tailors the marketing mix to the members of this consumer group (Harvard Business Publishing, 2019). This provides information for marketers in order to understand consumer behavior—that is, who is buying what, how, how often, where, when, and why. In essence, the aforementioned is a market analysis that allows an organization to define the millennial segment, determine whether money should be spent to target this segment, and position the product in the market.
Consumer Analysis

Millennials (born between 1981 and 1996) are the generation that will replace the baby boomers: this is a group of people that is so economically powerful that advertisers focus a lot of energy and resources on targeting them. According to the U.S. Census Bureau, as of 2019, Millennials accounted for 22% of the total U.S. population, which is a larger segment than the baby boomers (Fry, 2020). With an estimated size of 72 million, the millennials represent a consumer group that has considerable spending power.

The target market for the Golf Association is Millennials who have sufficient discretionary income. One should explore this target market by researching what they want, when they want the service, where they can find information about the service, and how they make their decision to subscribe to the service. Once the Golf Association succeeds in targeting the Millennial population, the organization can start focusing its promotional resources on specific geographic regions.

Questions that the instructor can ask the students:

- What changes should golf make in order to attract and create a long-term relationship with the younger generation?
- What technologies should golf use to appeal to this tech-savvy generation?
- How should golf clubs reorganize the peripheral services they offer (e.g., cart rental, golf club rental, resort use, food options, drink offerings)?
- What channels should be used to disseminate the information to (communicate with) millennials?

Assignment Question 2: What does a comprehensive marketing plan (STP analysis) for the service offered, the price charged, and the promotion sought look like

A marketing plan outlines the marketing campaign of an organization and states the objectives, presents current business conditions, and explains the strategy the organization will use (Sharp, 2018). It is a guidebook of marketing activities for an organization. At a minimum, the marketing plan should contain an executive summary (including the objectives), an assessment of the market opportunity, a summary of the strategy, financial goals, budgets, forecasts, and conclusions (Sharp, 2018).

It is recommended that the US Golf Association explains the strategy it will use to attract young customers—outline the decisions the Association makes about product, price, place, and promotion.

For instance, the Association could do the following (Harvard Business Publishing, 2019):

- Situational Analysis: strengths—well-established Association and sport; weaknesses—sport seems to be not attractive enough to engage young people; opportunities—use social media for outreach, target Millennials; threats—other sports, consumers have competing interests such as entertainment, family obligations, and professional commitments.
- Target market: Millennials (age cohort 27-42)
- Product: Golf and the peripheral products of the sport
- Price: membership fees, green fees, tournament fees, equipment fees
- Place: Golf courses around the country
- Promotion: Web pages, social media, outreach efforts, celebrity endorsements

JABE 92
Assignment Question 3: What would a short-term promotional plan for the Golf Association look to make the sport more popular among young people? (Explain your answer)

A solid web presence should be maintained, especially for young people to provide them with necessary information. However, this age cohort can be more easily reached through social media. A website and social media are relatively inexpensive and are appropriate for the audience targeted and services promoted.

It is important that the promotions are related to and reach the target market. Search engine optimization might also be an option when operating a website. Finding sponsors to support outreach events might be another way to appeal to the customers. Association networking and the customer referral system might also be inexpensive avenues to locate potential customers. Testimonies from successful players and satisfied customers might be another effective promotional tool.

TEACHING TIPS

Students will have to adjust the marketing concept accordingly to meet the Association’s needs and focus on achieving sports organizational objectives. Such a focus makes the marketing concept relevant for the business in question, as it follows organizational goals.

Many students will assume that adolescent golf players consume a service (entertainment). In this respect, many students will argue that the products that are offered are entertainment, recreation, and exercise and the customer base is Millennials. However, the students also have to consider if the service is affordable and appropriately packaged.

Other resources that might help teach this case and facilitate a stimulating case discussion:
- Let students define who is considered a Millennial and who is considered a young golf player.
- Use sources, such as sports statistics, industry magazines, golf course Web pages, and industry profiles, to get the necessary information.
- Let students list three characteristics that should be considered when promoting golf to baby boomers and Millennials.
- Arrange guest lectures with successful golf entrepreneurs.
- Visit golf courses and sports events with students.
- Undertake service projects with students that promote golf to young people.

ROLEPLAY

As a means of tying everything together and highlighting the most important points of the case, the instructor might choose to use role-play. The role play should re-enact the meeting between Matthew and the Board of Directors of the US Golf Association. Create groups of four students—one student plays Matthew, the other three students play the Board of Directors—and ask them to stage the meeting.

Coach the Matthew character to express concern for the lack of young people engaging in golf.
Coach the students who play the Board of Directors to present key elements of marketing planning:

- Objectives: Specific, measurable, achievable, relevant, timely
- SWOT: Strength, weaknesses, opportunities, threats
- Target market strategy: Millennials
- Marketing mix: Product, price, place, promotion
- Control: Marketing audit

After 20 minutes, debrief the class for 15 minutes.

This exercise may bring up a number of issues that are not addressed in the discussion points. The instructor may wish to raise these issues if they do not come up on their own. Such issues might include:

- What sports directly compete with golf?
- Is golf a sport for young people or is it a generational thing?
- What is the long-term outlook for the golf industry?
- How can the golf industry make the sport more mainstream?
- What is the next big thing in golf?

**WHAT COULD HAVE HAPPENED**

Matthew designed a well-structured marketing campaign and promotional plan that allowed the Golf Association to employ an effective marketing strategy over the next two years.

- The US Golf Association was able to double its Millennial members over the next three years and expand its service offerings to even younger players, such as tweens and teenagers. In addition, the Association was also able to start offering golf workshops to underprivileged segments of the Millennial population.
- The agency revamped its existing pricing structure, thus, increasing its revenues from premium memberships, tournaments, and fees for media rights. Through the revamping of the pricing structure, the agency was able to cover the operating costs of the organization without any charges to its clientele.
- The US Golf Association focused its marketing efforts on a well-designed Web page that was accessible and had useful functional buttons, one of which allowed Millennials to freely subscribe to the US Golf Association. Furthermore, the organization invested heavily in social media to promote the sport and the services golf courses offer and reach its clients. Also, the agency increased its outreach to fringe segments of the Millennial cohort.
- The US Golf Association promoted the development of smaller courses (less than 18 holes) with less bunkers. These courses would create faster and easier play and keep the costs to maintain those courses low. The faster play would accommodate the Millennial fast-paced lifestyle and create family activities that are affordable.
REFERENCES


