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## Internships as Clinical Rotations in Business: Enhancing Access and Options

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### Abstract

*Internships are high impact practices that offer work experiences and provide advantages for participating undergraduate students and for the talent acquisition efforts of firms. While research consistently documents the benefits of internships as a transformative experience, access and outcomes may vary for students and for underserved populations. Limitations of internships can include lack of access to enough positions as well as inadequate interactions between undergraduate students, firms, and faculty members in business programs. The purpose of this article is to describe an approach to enhancing access to internships on a larger scale with greater variety. Protocols found in clinical rotations in medicine and best practices for business internships guide development of the concept proposed in this paper. Steps associated with antecedents, process, and outcomes are summarized in a schematic and guide the development of the clinical internship framework. If high impact practices such as internships are to provide transformative experiences for all students, then the ideas developed to enhance academic efforts become critical components of future research and of continuous improvement efforts in business education over time.*

**Keywords:** internships, clinical rotations, framework, underserved populations, experiences, talent acquisition

Business faculty connect a student's academic preparation with opportunities for careers throughout the degree process. The professional nature of the business curriculum is an important component of faculty work and student progress. As Maddox et al. (2018) noted, however, "there is a growing, worldwide clamor for more relevance in business education at the undergraduate and graduate levels (p. 24)." High-impact practices provide an avenue to enhance relevance of the learning for students.

In general, High-Impact Practices (HIPs) include undergraduate academic experiences such as undergraduate research, internships, and senior-capstone projects where a student's investment of time and talent combine with collaborations and faculty interactions to enhance outcomes for engagement, Grade Point Average (GPA), satisfaction, and employment (Zilvinskis, 2019). This type of experience allows students to learn by active engagement or by "doing things," (Zotou, Tambouris, & Tarabanis, 2020) and enhances the relevance of the educational experience.

Internships are opportunities for students to work temporarily for an organization, with or without pay, to gain experience in the field, develop contacts, and apply learning to actual situations. The internship is a transition from the academic environment to the world of work (Bayerlein & Jeske, 2018). Learning at work is like learning in an academic environment but differs in many ways as it is both formal and informal and the workplace varies in its support of learning (Tynjälä, 2008). Internships require students to live in the profession as they learn work-related and immersive social skills (Urquía-Grande & Estébanez, 2020).

Work experience may be undertaken as an optional or compulsory part of a higher education or training course and can be described using a plethora of terms including work-integrated learning (WIL), traineeships (as they are often referred to in Europe), work/field placements, industry attachments, clinical placements or rotations, and professional practice or practicums (McDonald, 2020, p. 33).

Internship programs can have several limitations including problems with finding enough placements in an industry or a given geographical location (Jackson et al., 2017), experiencing disconnects between academic learning and work practices (Bayerlein & Jeske, 2018), and having inadequate access for underserved populations (Kuh & Kinzie, 2018). Scholars also describe a gap between the perceived importance of the internship and the academic structure provided for the learning experience to occur (Matusovich et al., 2019).

Academic learning and workplace skills are aligning to integrate formal and informal learning to produce the expertise needed to adapt to changes occurring at work (Tynjälä, 2008). If business education is to become a space where students learn how to become lifelong learners and to apply their knowledge to business situations, then providing access to quality internships and high-impact practices must become an expected part of the educational offer (Lan, 2021). The purpose of this paper is to explore and

develop an alternative perspective of internships for undergraduate students that mimics best practices in medical clinical placements.

### **Situated Learning Applications**

Lave & Wenger (1991) asserted that learning is at its core a social process. Legitimate peripheral participation includes learners as participants in a community of professionals as they learn how to participate fully in the sociocultural norms in that field and develop a sense of identity. Situated learning contrasts with cognitivists who suggest learning is about objective knowledge and best achieved in academic settings (Handley et al., 2007). Situated learning shifts the focus to learning as a participative process, embedded in everyday practices and not divisible as discrete steps (Handley et al., 2007). For example, clinical rotations in medicine enable interns to socialize with medical professionals as they experience the cultures and work expectations for varying specialties. Clinical rotations in medicine are an expected element of the educational process in that field, socializing medical professionals to the people and contexts for life after academic learning.

### **Clinical Rotations in Medicine**

Medical students must know how to apply their skills before working with patients; thus, many studies on internships and clinical experiences originate from the medical field (Urquía-Grande & Estébanez, 2020). Before completing their educational degrees, medical students take clinical rotations in several areas including surgery, pediatrics, obstetrics, medicine, psychiatry, neurology, and family practice to learn about the breadth of medical applications (Minhas et al., 2017). As examples, structured rotations in medicine expose residents to topics such as genetics (Forsyth et al., 2020), outpatient medical clinics in psychiatry (Zimbrea et al., 2020), and forensic psychiatry in the criminal justice system (Wasser, 2019).

In addition to required clinical rotations, electives in fields such as pathology also introduce medical students to variations in the field of medicine (Minhas et al., 2017). While structured learning in a class is important, clinical learning provides opportunities for increased engagement and multimodal learning (Wasser, 2019), in addition to experiential learning which is also valued in the business world.

Clinical rotations in medical settings offer students and faculty opportunities to apply their skills and to understand the breadth of work in the field. Greater participation in the workplace for doctors-in-training is seen as a critical part of learning (Kadiah, 2017). The clinical rotation experiences affect student choices of careers in medicine and the exposure to a range of areas is thought to assist students in making informed choices for their careers (Minhas et al., 2017).

Students placed the greatest value on clinical rotations where they were part of the medical team and influenced patient care with the quality of supervision cited as critical for enhancing clinical learning (Kadiah, 2017). Objective measures of academic performance correlate well with subjective

performance evaluations of interns during clinical rotations to inform and influence hiring decisions for the most qualified (Filiberto et al., 2021). Tracy et al. (2020) found that quality clinical experiences were associated with high passing scores on the subsequent National Board of Medical Examiners' (NBME) written assessment of knowledge.

The challenge in medical education has been to use limited resources well, with clinical placements becoming a critical component of offering educational value efficiently (Kadiyah, 2017). Educational institutions in the medical fields face challenges with finding sufficient capacity to place students in clinical rotations or internships. Both clinical leaders and relationships with universities are important for growing clinical academic research internships in nursing (Olive et al., 2021), for example. As numbers of students in pharmaceutical programs continue to rise, the need to enhance clinical track options increases as well (Tofade et al., 2017). In addition to honing the skills of medical professionals, clinical rotations also involve close relationships between academic institutions and the medical organizations that employ their graduates.

In summary, benefits of clinical rotations in medicine begin with the learning that occurs in the applied setting where strong supervision from faculty and medical professionals guide students' efforts and improve their skills during these early stages of their careers. The exposure to a variety of specialties is an important part of the clinical rotation concept in medicine as is the opportunity for students to experience options for their careers. Medical students value clinical experiences the most when they are part of a high performing team that influences patient care. Thus, the challenge for clinical experiences in medicine is in cultivating enough placements for a growing number of students. Internships in business share many of these characteristics.

### **Internships for Business Students**

Internships are temporary work experiences that enhance skills and understanding of expectations for career positions. Students who acquire an internship learn about career options and practice networking skills as they begin the transition from an educational setting to the world of work. The typical or traditional model has students completing one internship, perhaps two, before graduation. Many authors explore the benefits of these opportunities.

Vélez and Giner (2015) related three benefits of internships for business students to include 1) improved employment opportunities, 2) enhanced competencies and skills, and 3) greater awareness of career options. The thirty-three articles they reviewed that were primarily quantitative in nature, empirically supported the impression of the effectiveness of business internships in improving employment chances for career positions, enhancing job-related and social skills, and clarifying potential career paths for participating students. Knause and Fontenot (2011) also found from a review of literature that work-related skills and employability improved with internships.

In their scale development work, Nghia and Duyen (2019) identified five constructs for potential benefits of internships, including 1) applying knowledge and skills to career situations, 2) developing professional skills, 3) shaping career options, 4) expanding professional networks, and 5) enhancing attitudes and professional behaviors. Binder et al. (2015) found enhanced benefits of internships in comparison to simply studying for a year in a different academic environment, reinforcing perceptions of the positive outcomes of the immersion in a work environment. Gault et al. (2000) found advantages of reduced time to landing the first career position, higher salaries, and greater satisfaction with the chosen career.

The importance of the situated learning or immersion in the social aspect of work is emphasized in the material from clinical rotations in medicine and in the studies that describe benefits of internships for business students. A challenge may be in finding enough employers who are willing and able to work with colleges of business and universities to provide these experiences.

### **Benefits of Internships for Employers**

Swanson, S. R. and C. Tomkovick (2014) differentiated the importance of varying elements of the internships for employers and students. Employers emphasized the importance of the workplace culture, supervision, and clear learning objectives while students highlighted the importance of skill development, career opportunities, and the general appeal of the internship. Employers viewed the purpose of an internship as talent acquisition, succession planning, supplemental staffing, and a fulfillment of the firm's social responsibility (Neelam et al., 2019).

Employers benefit from the opportunity to evaluate potential employees, augment staffing, and obtain new skills from young professionals (Swanson & Tomkovick, 2011). For starting career positions, employers consider people who have work experience to have an edge with hard and soft skills, career focus, and abilities to adapt to an organization (Neelam et al., 2019). Employers also benefit from the relationships they build with business programs and their faculty.

For the medical field, providers that provide internships, practicums, and clinical rotations have structured the environment to support these efforts. Even so, programs are constrained in growing numbers of students by the availability of clinical placements.

### **Challenges of Business Internships**

The negative side of internships include students who have trouble adapting to the professional culture on the job, those who must perform menial tasks, and some who have prior career choices disconfirmed. Supervisors can err when they expect students to work and perform like regular employees or fail to define job expectations clearly (Neelam et al., 2019). The relationship with the supervisor affects the intern's feeling of affiliation with the organization and the positive outcomes of the experience. Further, Nghia and Duyen (2019) cite the lack of adequate managerial or administrative supervision for internships as a challenge for improving learning outcomes.

While there is a strong consensus that internships are important experiences for students to enhance explorations of career options, develop skills and attitudes, and enhance finding the first career position, Matusovich et al. (2019) found that there were few direct actions taken by universities associated with the beliefs in those benefits. While universities and employers are expected to guide students in finding opportunities and making the most of the internship experience, underserved populations may not have the same access as other groups. The challenge of scaling immersive high impact experiences throughout the business curriculum remains.

There is some empirical support for concerns about equity of access to quality work experience and internships (McDonald, 2020). In reviewing open market internships where institutions and students pay firms for placements, the process is seen to favor those from higher socioeconomic backgrounds. “For underserved student populations, High-Impact Practices (HIPs) are vulnerable to issues related to access, privilege, and quality,” (Zilvinskis, 2019). Hoekstra (2021) cites several authors whose work reinforces the idea that participation in high-impact practices, in general, is not equal across undergraduate populations and that those who miss the opportunity may be at a disadvantage after graduation. Underrepresented students may need assistance in securing internships, identifying available resources, and preparing to access and use campus career services (Means et al., 2016). Further, unpaid internships are of particular concern for students from families with lower income levels. The unfairness of unpaid internships is a concern for institutions and policymakers alike (McHugh, 2017).

Requiring an internship for a university degree in business creates varying reactions from educators. Klein and Weiss (2011) found no evidence that compulsory internships lessened disadvantages for graduates from underrepresented groups but cited the clear advantages of voluntary internships and the increased probability of being hired for career positions once completed. Further, many students work full-time or have prior work experience and thus would benefit less from an internship. The proportions of students working full time or with extensive prior experience may also reduce the need to require an internship to complete the degree.

While the evidence can be interpreted in different ways, HIPs such as internships are seen to enhance engagement, improve integrative learning, and boost outcomes such as persistence and graduation rates particularly for students from historically underserved populations (Kuh & Kinzie, 2018). In their extensive study, Binder et al. (2015) found positive outcomes of internships across all combinations of gender, ethnicity, and level of prior academic achievement. Institutions invest wisely in encouraging weaker students to complete an internship. For courses that lack diversity in gender composition, for example, institutions may need to focus on methods for recruiting and placement to provide access to underrepresented groups.

### Caveats for Developing a Clinical Model

Internships seem to provide clear benefits for students in improving employment opportunities, skills, and awareness of career options. Internships also provide benefits for participating employers for talent acquisition, assistance with work, and development of career paths. While the evidence varies, equitable access to internship opportunities is an issue for concern and careful planning. Business programs are faced with the same call to ensure equity, grow numbers of participants, and enhance the quality of the experience; they need to develop methods for scaling up internships that would make a difference for the students, employers, and the college or university. Especially during this time with COVID19 disruptions and the work-from-home paradigm (Park & Jones, 2021), the work to provide innovative approaches is important.

The basics for enhancing the quality of internships begin with the following ideas: 1) interns need to be guided to learn by doing, 2) employers offer workplace relationships and supervisors, and 3) professors and employers interact to design opportunities that fulfill organizational needs as students continue to learn (Lan, 2021). High impact aspects of effective internships include feedback, applied experiences, and high expectations of performance. Studies show improved outcomes when the experience is limited in time and scope as opposed to delivered over several months with longer hours (Zilvinskis, 2019). Rather than restrict the internship to rising seniors, the most important qualifications may be communication skills, a positive attitude, and a mature work ethic (Swanson & Tomkovick, 2011) which may invite participation by students earlier in their educational programs and open the door to enhancing experiences in a variety of areas as they do with clinical rotations in medicine.

McHugh (2017) emphasized the need for institutions to ensure supervisory commitment based on the critical role that supervision has in the overall internship experience. Some studies suggest that internships of shorter duration (Zilvinskis, 2019) with strong supervision (Lan, 2021) and some type of reflective exercises (Schwoegl et al., 2020; Knouse & Fontenot, 2011; Lang & McNaught, 2013) may provide a means for strengthening the outcomes of the internship experience overall.

In their study, Aho, Wright, and Marvel (2020) explored online project-based learning and found it to be substantial and worthwhile. They suggested the benefits for students come from working with teammates and with an actual client (Aho et al., 2020). Barrón (2020) treated a writing class as an internship and found that student motivation and self-efficacy increased as students tackled client-based projects. For students from diverse backgrounds, interactions with potential employers with the faculty member as a mediator and guide encouraged instructors to reimagine roles and enhance outcomes. Taking the time to provide training for the internship, to discuss the student's role in the process, and the research needed to investigate issues were important aspects of increasing self-confidence for the client-based project approach (Barrón, 2020). Maddox et al. (2018) also found that students in advertising could gain experiences in diverse activities such as media buying and scheduling



through client-focused exercises. Their research highlighted the enhanced knowledge when compared to a control group.

In developing a model for internships based on clinical experiences in medicine and results from internships that currently occur, several caveats are thus suggested to guide the development of academic programs to enhance expected outcomes. Whether or not client-focused exercises, simulations, or case studies deliver comparative learning is a question worth exploring.

### **An Approach for Clinical Internships in Business**

Based on the insights derived from clinical rotations in medicine and from the benefits of business internships, the idea is to experiment with clinical internships for business settings. The proposal would be to develop a course, partner with external organization(s), foster interactions between faculty and professionals in supervising the internship experience and provide students with complex issues to resolve. The variety of issues should be diverse in their focus on different aspects of business operations and client-based to reflect actual challenges.

The Clinical Business Internships (CBIs) would be designed to offer a course for three semester-hours credit with an assigned instructor or professor. The participating organization(s) would be invited to participate in completing the syllabus for the course to ensure the experience reflects the skills the organization needs to develop. The cultivation of business partners can then also go beyond geographical limitations to solicit connections with a broader set of organizations.

Solicitation of a faculty lead for the clinical internships is a critical component to enhance the probability of success. In a similar manner, recruiting liaisons with each organization to design problems, assisting with supervision of work by students, and interacting with students at regular intervals are also important parts of this concept. The work to recruit liaisons in the organization is a critical aspect of enhancing the outreach of the business program and its subsequent impact on organizational outcomes.

Since clinical rotations in medicine include several different specialty areas, the first step in early meetings between the faculty in the college and the potential internship partners is to design “problem pods” of questions that reflect the diverse issues of concern for the organization. Problem pods should be associated with the mission and strategic direction of the company and include complex issues for review.

An application process would include marketing materials to explain why students should consider taking this clinical business internship course and a protocol to review applications to select the pilot group of students and to then scale up those efforts over time (i.e., add a second course). Expectations for professional attire and demeanor for interactions and meetings begins with the application process and setting the tone for allowing students to learn to transition from school to work.

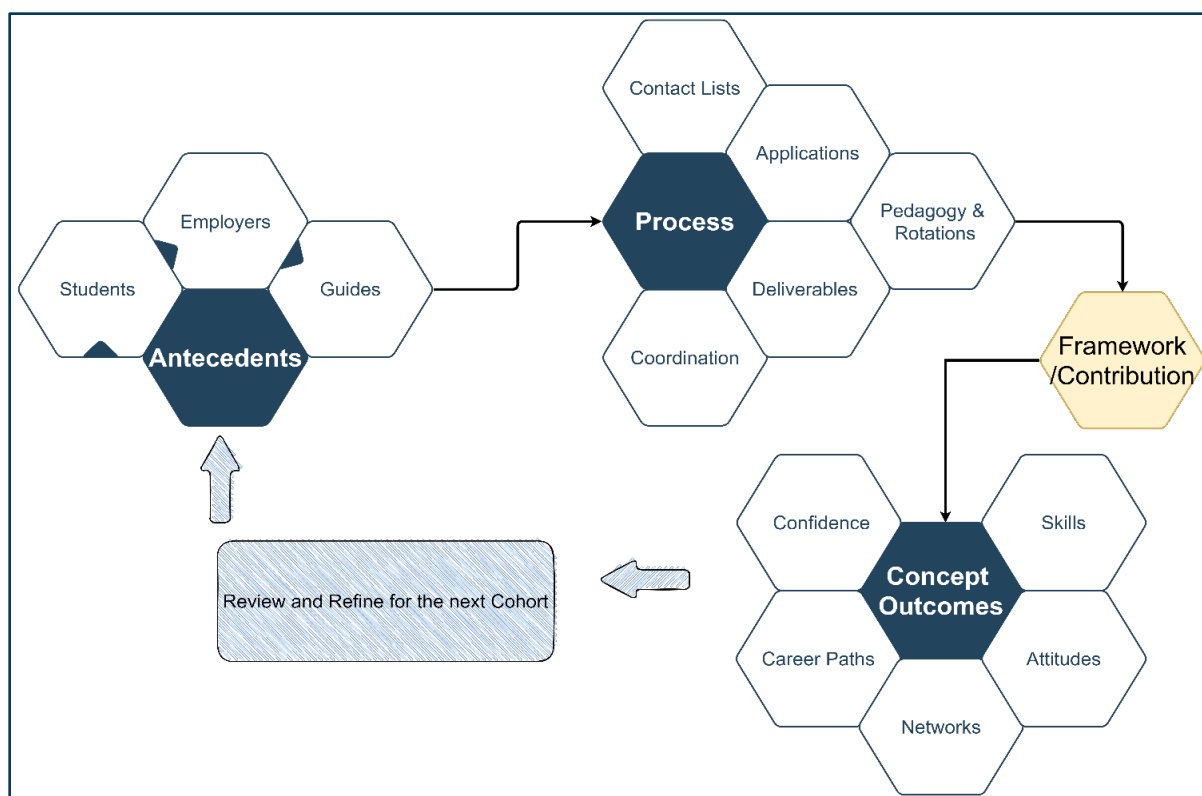
For students who are currently working full time or who have extensive work experience prior to targeting a university to complete the degree, this concept could be modified. Working students might apply the internship elements to their current employer for the next level of position in the firm.

The development of relationships between the academic unit and the clinical internship partners is important. Pre-planning to define the problem pods then moves to assessments of progress by student teams, and evaluation of performance overall on the complex issues.

As the clinical internships develop in business over time, interactions with senior leadership in the organization is also a way to enhance talent acquisition for the firm and closure for the students. The success of the program may depend on the extent to which students respond to the tutelage and guidance of the more experienced business mentors as they contribute to solutions for the organization.

The schematic depicts the three key aspects of planning to implement business internships that are based on this clinical rotation concept.

**Schematic of the Caveats for Clinical Internships**



To develop clinical business internships and compare their efficacy to alternative types of internships, the goal is to focus on antecedent conditions or the planning to enhance the diversity of the pool of student and organizational participants. Then, the process would itself focus on the framework for

deliverables, and finally, planning efforts should then clarify the expected outcomes to be tracked and compared over time.

**Antecedents** include working to plan for the diversity of the pool of students and employers. Student characteristics may include a focus on gender, socioeconomic background, ethnicity, and major to compare participation rates and outcomes for the diversity of students who participate. Employer characteristics may include the size of participating firms and the identification of complex problems in the problem pods that need to be resolved. Faculty and employer guides are then the engaged leaders who will interact with each other and the students to guide the experience and improve it over time.

**Process** issues involve designing the framework for applied study, teamwork, and expected deliverables. Pre-course coordination between the faculty and organizational guides is an important part of designing the experience. Attention to the application process and the communication of the opportunity to all is important to ensure students understand the opportunity. Designing the applied pedagogy, opportunities for professional interactions, approach to guiding students to resolve problems, rotations, and timing, as well as use of reflective exercises are all necessary steps in planning. Work with the organization to ensure awareness of rotations, the schedule, and expected deliverables provides a chance to get to know the firms as well as ensure quality outcomes. Finally, the framework for students to interact with each other and to meet with leaders in the organization to contribute to recommended solutions may make the difference in the impact of the experience.

**Outcomes** involve work to plan for tracking the challenges and benefits of the clinical internship concept. Did the experience enhance professional knowledge and skills, improve attitudes and behaviors toward learning in a professional environment, or expand knowledge of career paths and networks of professionals in the field? Did participants identify aspects of organizations that interested them? Did the experience increase the student's confidence in applying for a position with the firm or increase the organization's confidence in offering a position to the student?

At the conclusion of each semester or year of clinical business internships, the idea would be to review the outcomes, converse with the partner organizations, and prepare for the next cohort of students.

### **Future Research and Challenges Implied by Clinical Rotations for Internships in Business**

To be effective, aspects of the structure for internships for business are suggested by clinical rotations from medicine and by the literature on the benefits of internships for business. A summary of the structural issues of interest that may warrant further investigation by scholars include interesting considerations.

- 1) **Assessing effects of a "clinical-style rotation."** Defining outcomes of work on a set of problems to solve from different areas of the business such as management, marketing, accounting, finance, or human resource management is a challenge. To enhance the effectiveness of

business internships based on clinical rotations in medicine, the business model would need to expose students to a variety of areas associated with the functional areas of business. A research question would then ask whether this exposure to a variety of business areas improves outcomes of the experience or subsequent decisions about career choices, or whether or not it affects social learning outcomes associated with successful work experiences.

- 2) **Providing sufficient capacity.** To enhance its reach, business schools can then develop courses and mechanisms to provide internships for all students who do not have work experience. Another research question in need of further review would focus on the idea of assessing benefits from internships of varying length and format and documentation of the challenges found and differentiated by time and format. Identifying and estimating the resource needs to emphasize these experiences is also a need.
- 3) **Assuring diversity and inclusion.** To be effective in an academic setting, work must continue to encourage participation in the internship experience and reach underserved groups. A commitment to diversity and inclusion requires plans to enhance access and to reduce barriers to participation. Another issue for future research is a focus on issues for underserved populations to document challenges and methods for enhancing access and resulting benefits for students and employers from the experience.
- 4) **Planning for high-quality supervision** and interactions. As studies in medicine have shown, the benefits of the internship are multiplied when supervision is strong, and feedback is clear and on target. Scholars need to document the differential effects of supervision type on the outcomes of the internship experience.
- 5) **Enhancing the relevance of the work** and interactions. A final research question suggested by this paper calls for a focus on varying the traditional internship format from working on-site and in-person with supervision by the organization, to exploring outcomes from client-based projects and shorter time frames for the experience. The assumption is that the relevance of the work and interactions with peers, employers, and faculty will mimic the beneficial experiences of the traditional model, but work will be needed to assess the efficacy of that view.

### Summary and Conclusions

At its core, learning is a social process. Clinical rotations in medicine use teams to have medical students experience varying specialties as they engage in work experiences with practitioners in those fields. Using the ideas from clinical rotations in medicine would suggest that business programs may also impact student learning by focusing on creating a similar expectation for these high impact practices as part of the academic program. With attention to planning antecedents, processes, and outcomes, business programs may provide a higher number of quality internships as a part of the academic

offering. This alternative view of internships mimics best practices from clinical rotations in medicine as it draws from studies of the benefits of internships for undergraduate business students.

Clinical internships for business may overcome several limitations of a more traditional model. First, colleges can scale up numbers to affiliate with firms in several industries and across geographic locations. Second, embedding the internship in a course may reduce the distance between academic learning and the world of work for students and for faculty members. Third, focusing internships within a course that is based on problem pods and interactions between teams and companies may reduce some of the disparate access for underserved populations. Finally, clinical internships with rotations may provide a mechanism for the academic units to focus on improving the learning experience and personal growth associated with these transformative opportunities.

The protocols outlined from this review provide many avenues of future study. Documenting the effects of varying times, formats, and locations for internships should guide and improve outcomes over time. Experimenting with different types of supervision for internships and encouraging collaborative steps by faculty and organizations may affect the outcomes for students and for the colleges and organizations involved in this effort. Focusing on diversity and inclusion to develop internship options that reduce barriers to entry and enhance benefits are also critical components for future efforts for organizations and their academic partners.

While the idea of clinical internships for business is not a radically new concept, it seems to be a logical next step in the continued development of high impact practices that form the core of current approaches to business education. Basic processes to strengthen connections between business faculty and supervisors in organizations, rotating students through different specialty areas, and using courses as a foundation to expand access may all improve business education, its application, and the social elements of learning.

## References

- Aho, W., Wright, E., & Marvel, J. (2020). Evaluating the influence of venue on experiential, project-based learning. *International Journal for Business Education*, 160, 9-21.
- Barrón, N. G. (2020). Internship models: acknowledging social and academic expectations. *International Journal of Educational Management*, 34(6), 1049-1061.
- Bayerlein, L. & Jeske, D. (2018). Student learning opportunities in traditional and computer-mediated internships. *Education + Training*, 60(1), 27-38.
- Binder, J. F., Baguley, T., Crook, C., & Miller, F. (2015). The academic value of internships: Benefits across disciplines and student backgrounds. *Contemporary Educational Psychology*, 41(April), 73-82.

- Filiberto, A. C., Coper, L. A., Loftus, T. J., Samant, S. S., Sarosi G. A. Jr., & Tan S. A. (2021). Objective predictors of intern performance. *BMC Medical Education*, 21, Article number: 77. 1-6.
- Forsyth, R. L., Weiyi, M., Gibson, L., Serwint, J. R., Shilkofski, N., & Bodurtha, J. (2020). A structured genetics rotation for pediatric residents: An important educational opportunity. *Genetics in Medicine*, 22, 793-796.
- Gault, J., Redington, J., & Schlager, T. (2000). Undergraduate business internships and career success: Are they related? *Journal of Marketing Education*, 22(1) 45-53.
- Urquía-Grande, E. & Estébanez, R. P. (2020). Bridging the gaps between higher education and the business world: Internships in a faculty of economics and business. *Education + Training*, 63(3), 490-509.
- Griffiths, T. & Guile D. (2003). A connective model of learning: The implications for work process knowledge. *European Educational Research Journal*, 2(1), 56-73.
- Handley, K., Clark, T., Fincham, R. & Sturdy, A. (2007). Researching situated learning: Participation, identity and practices in client-consultant relationships. *Management Learning*, 38(2), 173-191.
- Hoekstra, C. (2021). *Examining Demographic and Environmental Factors that Predict Undergraduate Student Participation in Internships*. Dissertation, University of New York at Buffalo, ProQuest Publishing, 28315346.
- Jackson, D., Rowbottom, D., Ferns, S., & McLaren, D. (2017). Employer understanding of work-integrated learning and the challenges of engaging in work placement opportunities. *Studies in Continuing Education*, 39(1), 35-51.
- Kadiah, D. A. (2017). Perception of educational value in clinical rotations by medical students. *Advances in Medical Education and Practice*, 2017(8), 149-162.
- Klein, M. & Weiss, F. (2011). Is forcing them worth the effort? Benefits of mandatory internships for graduates from diverse family backgrounds at labor market entry. *Studies in Higher Education*, 36(8), 969-987.
- Knouse, S. B. & Fontenot G. (2011). Benefits of the business college internship: A research review. *Journal of Employment Counseling*, 45(2), 61-66.
- Kuh, G. & Kinzie J. (2018). What really makes a 'high-impact' practice high impact? *Inside Higher Ed*, (May 1).
- Lan, C.-C. (2021). Industry instructors' perspective on internship implementation strategy. *Higher Education, Skills and Work-Based Learning*, 11(3), 739-756.

- Lang, R. & McNaught, K. (2013). Reflective practice in a capstone business internship subject. *Journal of International Education in Business*, 6(1), 7-21.
- Lave, J. & Wenger, E (1991). *Situated learning: Legitimate peripheral participation*. Cambridge, Cambridge University Press.
- Maddox, L., Patino, A., Kaltcheva, V. D., & Pitta, D. A. (2018). Integration of an online curriculum with a real-world exercise: A step beyond traditional classroom teaching. *Journal of Advertising Education*, 22(1), 23-33.
- Matusovich, H., Carrico, C., Harris, A., Sheppard, S., Brunhaver, S., Streveler, R., & McGlothlin-Lester M. B. (2019). Internships and engineering: Beliefs and behaviors of academics. *Education + Training*, 61(6), 650-665.
- McDonald, P. (2020). Open market internships: What do intermediaries offer? *Journal of Education and Work*, 33(1), 33-47.
- McHugh, P. P. (2017). The impact of compensation, supervision and work design in internship efficacy: Implications for educators, employers and prospective interns. *Journal of Education and Work*, 30(4), 367-382.
- Means, D. R., Bryant, I., Crutchfield, S., Jones, M., & Wade, R. (2016). Building bridges: College to career for underrepresented college students. *Journal of College Student Development*, 57(1), 95-98.
- Minhas, P. S., Enogieru, E., Richard, B. A., Mitchell, N., & Mata, D. A. (2017). Passport to pathology: transforming the medical student pathology elective from a passive educational experience to an exciting, immersive clinical rotation. *Human Pathology*, 68, 34-39.
- Neelam, N., Bhattacharya, S., Kejriwal, V., Bhardwaj, V., Goyal, A., Saxena, A., Dhawan, D., Vaddi, A., & Choudaha G. (2019). Internship in a business school: expectation versus experience. *Higher Education, Skills and Work-Based Learning*, 9(1), 92-106.
- Nghia, T. L. H. & Duyen, N. T. M. (2019). Developing and validating a scale for evaluating internship-related learning outcomes. *Higher Education*, 77, 1-18.
- Olive, P., Maxton, F., Bench, S., Tinkler, L., McLin, R., Jones, S., & Kenkre, J. (2021). Clinical academic research internships: What works for nurses and the wider nursing, midwifery and allied health professional workforce. *Journal of Clinical Nursing*, (27 December), 1-11.
- Park, M. & Jones, T. (2021). Going virtual: The impact of COVID19 on internships in tourism, events, and hospitality education. *Journal of Hospitality & Tourism Education*, 33(3), 176-193.

- Schwoegl, E. N., Mackenzie, E. R., & Kuman, S. S. (2020). Reflective journaling by second-year dental students during a clinical rotation. *Journal of Dental Education, 84*(2), 157-165.
- Swanson, S. R. & Tomkovick, C. (2014). Marketing internships: How values and search strategies differ across the student-employer dyad. *Marketing Education Review, 22*(3), 251-262.
- Swanson, S. R. & Tomkovick, C. (2011). Perspectives from marketing internship providers. *Marketing Education Review, 21*(2), 163-176.
- Tofade, T. S., Brueckl, M., & Ross, P. A. (2017). Clinical track program expansion increases rotation capacity for experiential program. *American Journal of Pharmaceutical Education, 81*(8), Article 5937, 73-77.
- Tracy, B. M., Hazen, B. J., Ward, C. R., Winer, J. H., & Pettitt, B. J. (2020). Sustained clinical performance during surgical rotations predicts NBME shelf exam outcomes. *Journal of Surgical Education, 77*(6), e116-e120.
- Tynjälä, P. (2008). Perspectives into learning at the workplace. *Educational Research Review, 3*(2), 130-154.
- Vélez, G. S. & Giner, G. R. (2015). Effects of business internships on students, employers, and higher education institutions: A systematic review. *Journal of Employment Counseling, 52*(3), 121-130.
- Wasser, T., Sun, A., Chandra, S., & Michaelsen, K. (2019). The benefits of required forensic clinical experiences in residency. *Academic Psychiatry, 43*(1), 76-81.
- Zilvinskis, J. (2019). Measuring quality in high-impact practices. *Higher Education 78*, 687-709.
- Zimbrea, P. C., Ernst, C. L., Forray, A., Beach, S. R., Lavakumar, M., Siegel, A. M., Soeprono, T., & Schwartz, A. C. (2020). The educational value of outpatient consultation-liaison rotations: A white paper from the academy of consultation-liaison psychiatry residency education Subcommittee. *Psychosomatics, 61*(5), 436-449.
- Zotou, M., Tambouris, E., & Tarabanis, K. (2020). Data-driven problem-based learning: Enhancing problem-based learning with learning analytics. *Educational Technology Research and Development, 68*, 3393-3424.