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Abstract

This paper explores just-time-training and just-in-time learning opportunities provided within a hybrid reading course during the student teaching internship semester at one Education Preparation Provider (EPP) in Arkansas. The EPP, in the present discussion, offers this hybrid course concurrently with the student teaching internship experience to deepen candidate's knowledge of reading instruction and to provide just-in-time training for these candidates. This present review examines three important topics in Arkansas initial educator licensure preparation for which we developed this just-in-time training and learning. The topics considered include professional learning communities, literacy development, and interview preparation. Within this discussion, the EPP summarizes its efforts to provide just-in-time training and learning opportunities in these three preparation areas during the student teaching internship experience.

Keywords: Just-in-time Learning, Just-in-time Training, Student Teaching Internship, Student Internship, Literacy Development, Professional Learning Communities, PLCs

Introduction

Kuh (2008) writing for the Association of American Colleges and Universities noted the benefit of a number of high-impact learning practices. Included within this list of practices is student internships where students have the opportunity to express their knowledge, skills, and dispositions within a real-world context. In agreement with Kuh and in one large-scale study, Finley and McNair (2013) noted the benefits of high-impact practices in the learning of students underserved within the university community. They identified an increase of 5.2 points on a 10-point self-report standardized scale for students concerning their perceptions of deep learning and gains by participation in the high-impact practice of internships. In other words, students who participated in internship experiences believed they learned at a deeper level and gained much by participating in these internships to the point that researchers identified internships as one of the six most beneficial high-impact practices. Rodriguez and Koubek (2019) further note the benefits of these high-impact practices and identify a host of studies supporting their use within the university setting.

In agreement with these findings and recommendations, the Council for the Accreditation of Educator Preparation (CAEP) (2021) delineates the importance of these clinical experiences within educator preparation efforts. Consequently, CAEP has identified and communicated an entire standard pertaining to the effectiveness and benefit of clinical experiences for candidates, university personnel, and public-school personnel. CAEP site visit teams then evaluate the effectiveness and benefits of these clinical experiences as part of the accreditation process since they view clinical experiences as a vital part of educator preparation.

Within these experiences, education preparation providers (EPPs) seek to provide candidates with opportunities to experience the real-world of teaching and to reflect upon these experiences in order to continue their development as future professionals. One way these efforts may be continuously improved is through just-in-time learning and just-in-time training efforts.

Statement of the Problem

The purpose of this paper is to explore three ways in which just-in-time learning and just-in-time training practices can inform course design and experience to assist in making student internship experiences still more effective. This paper will specifically examine these just-in-time efforts by one Arkansas EPP in the areas of professional learning communities, literacy development practices, and interview preparation.

Review of Related Literature

Just-in-time learning involves examining student needs at present in order to shape instruction to fit this need at the appropriate moment where this learning can have the greatest impact (Beccaria, et al., 2019; Coryell, 2013). In this approach, the instructor determines what the greatest need of learning is and then shapes the instruction to meet this need “just-in-time.” This process has been used for a host of instructional purposes such as the improvement of student writing using immediate online feedback (Beccaria, et al., 2019), study abroad efforts (Coryell, 2013), and in various training environments in multiple fields (Leach & Haun, 2003; Surface Mount Technology, 2011; Varney, 2019).

In this approach, the instructor must consider carefully what students needs may be and must be cognizant of when the instruction should specifically meet these needs just-in-time in order to be most effective for the learner. As noted by CAEP (2021), Kuh (2008), and Rodriguez and Koubek (2019), clinical intern experiences can provide powerful opportunities to improve student depth of learning, learning impact, and can potentially benefit the learner in multiple ways. Coupled with just-in-time learning opportunities, this already beneficial experience may be further improved.

Just-in-time *learning* requires what those in the business, technology, and other professions refer to as just-in-time *training* (Iannarelli, 2009; Varney, 2019). Whereas the just-in-time learning perspective considers the view and context of the learner, the just-in-time training perspective considers the view of the instructor as they consider the most effective and timely way to deliver “training” to the learner to improve the participant’s learning. This concept is akin to what Havighurst (1953) referred to many years ago as a “teachable moment.” It is that point in time where the learner is ready, due to the context, environment, experience, and so forth to receive instruction that allows them to make greater sense and/or application of the information or skill being learned/experienced and to understand in a deeper manner.

For example, in one aforementioned study (Coryell, 2013), the instructor used the daily experiences of students participating in a study abroad program to inform his daily instruction. The context challenged students with new experiences for which the instructor then asked key questions and provided instruction based upon these experiences in order to allow students to gain broader understandings of what they were experiencing. In this case, the instructor provided just-in-time training to meet the learning needs of the students in that moment in which this learning would be most applicable (just-in-time learning). Through these experiences, learners noted benefits in their experiences and pertaining to the instructor interactions involved with these experiences. These experiences offered learners opportunities to practically conceptualize and grow beyond what they would have experienced strictly in the classroom setting. These approaches are supported by the recommendations and findings of Finley and McNair (2013), Kuh (2008), and others (e.g., CAEP, 2021; Rodriguez and Koubek, 2019).

Beccaria, Kek, and Huijser (2019) note similar findings when working with nursing students pertaining to these students’ writing abilities. In this particular study, the learners

participated in one of two groups. One received just-in-time writing training using a computerized program. The other group participated in a training approach that was not a just-in-time approach but that was offered in a traditional learn and then later assess style. The findings indicated the just-in-time approach resulted in statistically significantly higher scores related to deeper approaches to learning and overall essay performance. The researchers concluded that the program provided students with feedback in a skill being strengthened at just the point in time in which it was needed. As issues arose with their writing, the computerized program was accessible in immediate time in order to improve these skills. In this case, the program served as the just-in-time instructor/trainer.

Information related to teacher professional development also exists involving just-in-time learning and teaching. For instance, Greenhalgh and Koehler (2016) examined how Twitter – established with resources and interactive capabilities – was used after the terrorist attacks in Paris to provide just-in-time professional development for the teachers in France and teachers worldwide to assist them in preparing lessons for the students concerning this topic. The researchers found that teachers pursued this opportunity for professional development most aggressively during the days just following these events. The Twitter access opportunity provided teachers with just-in-time opportunities to interact with others who Plair (2008) would refer to as “information brokers.” These information brokers could provide necessary information in a real-life context with an immediacy that is typically not accessible through traditional professional development opportunities (Jones & Dexter, 2014).

As the aforementioned examples demonstrate, by considering the just-in-time learning needs of the participants and by considering how to provide this development in the immediate context, just-in-time development can benefit those pursuing it. As Jones and Dexter (2014) delineate, this type of just-in-time training may aid in establishing a greater learning community among participants. This training may then provide answers and solutions to just-in-time learning needs that traditional or formal professional development may not be able to address or solve in such a timely fashion.

As related to just-in-time training and learning efforts, the EPP within the present review has considered the need for just-in-time training for candidates in its elementary education program of studies. We designed this program as a four-year baccalaureate degree attracting students from multiple areas in Arkansas. The department, in which this program is housed, chose to include an upper-level reading course offered concurrently with the student internship semester-long course (when students are placed in various schools for a full-day, semester-long experience). Students complete the reading course in a hybrid format, and the course also serves as a just-in-time learning and development (training) opportunity. During this time in the course, candidates encounter aspects of schooling for which they have been prepared through classroom experiences and previous limited-time field experiences. However, during the internship, they are now experiencing these aspects within an ongoing daily context.

The course requires students to complete work involving literacy along with other just-in-time content related to the internship experience. Students participate in a hybrid format where they complete some coursework online. In addition, the students meet with the instructor and other experts in the field during limited day-long sessions. Within these sessions, just-in-time training occurs involving aspects of immediate interest which are taking place within the internship setting or that involve aspects of proximal need. Based upon the research and expert opinion denoted previously, this just-in-time training is believed to provide students with the opportunity to connect knowledge and skills in the internship setting in a deeper way. This

approach aligns well with recommendations involving the implementation of high-impact practices (Finley & McNair; 2013; Koh, 2008, Rodriguez & Koubek, 2019) and just-in-time training, learning, and development (Beccaria, et al., 2016; Coryell, 2013; Greenhalgh & Koehler, 2016; Plair, 2008).

In the present context, the course instructor, in alignment with other internship hybrid course instructors in the department, engages students in several just-in-time learning opportunities. Three of these just-in-time opportunities of particular relevance to student and professional needs are aligned to Arkansas Department of Education Division of Elementary and Secondary Education (DESE) preparation competencies and expectations involve professional learning communities (PLCs), literacy development, and interview preparation. The following explores these three further in their implementation and relation to just-in-time learning and training.

Professional Learning Communities (PLCs)

The research and best practice writings concerning professional learning communities are substantial (e.g., Caine & Caine, 2010; DuFour, 2004; DuFour & Eaker, 1998; Eaker & Sells, 2016; Senge, 2006). Experts in this area propose “big ideas” of PLCs including a focus on learning, a collaborative culture, and an orientation to results within the school/community context. In addition, they delineate recommended core components and essential questions to guide the PLC’s focus and direction. These authors propose that PLCs are not simply additional meetings, discussion times, and so forth but are a way of thinking – a system of operating belief – whereby learning and effectiveness is continuously measured and where individuals and the system in which these groups of individuals operate are continuously learning and improving.

In agreement with these points of emphasis of researchers and experts in this area, the DESE (2021) has, in recent years, increased focus upon developing schools within Arkansas as professional learning communities. The DESE has worked to recruit, train, and develop participants in this effort and has established expectations for Arkansas colleges of education pertaining to this goal. The DESE requires these colleges to delineate how it prepares its candidates to enter school PLCs as beneficial and contributing members after graduation and during initial employment.

To this end, colleges of education have attempted to develop various ways to prepare their students toward this expectation. Nonetheless, colleges do discover limitations in the extent to which students can truly “experience” the PLC process during preparation. As with other colleges’ efforts, the present EPP has provided multiple opportunities for its preservice candidates to participate in classroom role-plays, scenarios, and learning activities that provide informal experiences related to typical PLC activities (e.g., reviewing student assessment data and working collaboratively in planning based on these data, discussing ways to improve instruction in a given context, designing collaborative assessments, participating in question and answer sessions with faculty and/or administrators concerning PLCs, reading about and watching presentations about PLCs, etc.).

However, until students enter the full-time internship semester, they may fail to fully make these PLC connections with real-world experience. PLC training does occur earlier in the program, but it is more difficult to provide just-in-time training prior to the internship semester. Therefore, we use the hybrid class offered in conjunction with the full-time student internship to assist students in a just-in-time manner as many of the students are now participating in PLCs in their school context on a full-time basis.

While participating in PLC meetings, interns observe how their participating schools structure PLCs and how that structure aligns with basic characteristics of effective PLCs. Of particular emphasis is the presence of shared values and visions, collective responsibility, reflective professional inquiry, collaboration, and promotion of individual as well as group learning (Bolam et al., 2005; Hord, 2004). Additionally, interns note how their participating school collects student data and how they use these data as part of the PLC process. Currently, PLC experiences for interns vary depending on the individual school's progress in the implementation of PLC training. As interns share their findings related to PLC structure at their schools, they look for commonalities as well as characteristics of effective PLCs not observed.

After sharing intern observations from various participating schools, an administrator from an Arkansas model PLC school presents information related to the effective implementation of PLCs in that school. This presentation explains how the philosophical underpinnings of effective PLCs are established and maintained, emphasizing the responsibilities of the school, individual teachers, and the overarching PLC structure in meeting the needs of every student. During this presentation, the interns have the opportunity to connect previous learning experiences to the real-world application of PLCs and begin to understand what their role will be in these learning communities once they take their place as teachers in the schools. We also present interns with examples of the types of data collected and how those data are used within the PLC school to address specific instructional needs.

Perhaps most reassuring for interns is the realization that effective PLCs are much more than just small groups conducting weekly meetings. They are school-wide communities offering not only support for individual growth but that also create an environment of mutual trust and respect (Bolam et al., 2005). Understanding that their knowledge and ideas are important and respected allows these interns to immediately and comfortably enter a school knowing they can effectively contribute to the larger learning community.

By providing such opportunities to participate within and to discuss PLCs, students have the opportunity to experience just-in-time training and learning. As candidates participate in these PLCs on a day-by-day basis and spend time reflecting upon these experiences that are aligned with the just-in-time efforts of the instructor, candidates experience just-in-time learning that addresses their needs and questions at the crucial moment of their learning.

Literacy Development

A second point of just-in-time training within this hybrid course involves knowledge and skills concerning reading development. While we have previously exposed the interns to developmental aspects of literacy as part of their coursework and they have had some exposure to students' literacy development through previous field placements, internship offers them an opportunity to witness variations in individual literacy development throughout the school day and for extended periods. The interns also work with a variety of literacy-related materials adopted by different schools during this time. This presents an opportunity to review aspects of literacy development and the ways in which differing literacy materials address development.

To this point, the interns have primarily examined spelling programs adopted by the participating schools and have discussed the observed uses of such programs in the classroom. Spelling instruction is an important component of learning to read, particularly due to the role of orthographic (spelling) knowledge in word identification (Ehri, 2014).

Initially, as students begin to understand the one-to-one correspondence between individual letters (graphemes) or digraphs and the sounds (phonemes) of spoken language, readers begin to recognize unfamiliar words through the use of analogy (e.g., the ability to read

the word *tramp* based on recognizing the similar spelling pattern of the word *stamp*). As students understand more complex spelling patterns, the spelling of new words become mapped into memory onto the pronunciation and meaning of those words (Ehri, 2014). This process, referred to as orthographic mapping increases the number of sight words available to the reader. That increase allows for more fluent reading and greater reading comprehension.

Orthographic knowledge increases as readers move through specific stages of development which correspond to oral language development (Beers & Henderson, 1977; Gentry, 1978) and literacy development (Bear et al., 2019; Ehri, 2005). As with language, the development of orthographic knowledge proceeds from simple to more complex understandings with a corresponding reshaping of cognitive structures at each level (Gentry, 1981). This strongly suggests that students receiving spelling instruction beyond their understanding must work harder and rely more heavily on rote memorization to spell words. Ideally, the goal of spelling instruction is for students to be able to generalize orthographic patterns to a multitude of other words, including unfamiliar words encountered in text, rather than memorize individual spellings of words. For this to happen, it is important for spelling instruction to align with individual orthographic development (Bear et al., 2019).

It is generally beyond the scope of published spelling programs to significantly discuss development or, as is often the case, to specifically address development within the provided lessons. However, during the hybrid course, the interns discuss the various spelling programs adopted by the participating schools as well as ways to implement those programs with an eye toward individual orthographic development. Providing an opportunity for such discussions during internship allows these preservice teachers to not only implement what they have learned about literacy development but to also receive immediate student feedback as to the effectiveness of the lessons. It is hoped that the just-in-time nature of this experience will have a lasting impact on the interns as they progress through their careers and will improve literacy instruction for their future students.

Interview Preparation

A third point of just-in-time training within this hybrid course involves the preparation of candidates to participate effectively in job interviews. We offer this support to interns at a time when they are beginning their job search. This support begins with a presentation by a representative from Career Services, which includes topics such as professional dress, interviewing skills, and advice for creating professional resumes. Interns are then able to make individual appointments to have Career Services assist with editing and polishing those resumes.

Prior to the completion of internship, we convene a principal panel consisting of a handful of school principals from the local area. This process begins with each principal describing what they are looking for in teacher candidates. Interns may then ask questions of particular concern to them regarding expectations and the hiring process.

When debriefed about their experiences during the principal panel, the interns are often surprised by the attributes and skills principals consider most important when hiring teachers. Although the principals consider pedagogical and theoretical knowledge to be important, they generally assume the interns have gleaned such knowledge from their college courses. For many principals, it is more important that the teachers they hire possess personality traits that make them a good fit with other faculty members. Some attributes often cited include the importance of being a team player, the ability to reflect on their teaching, the ability to positively accept feedback and implement suggested changes, and to be resilient. Although these attributes are stressed throughout their college coursework, hearing potential employers emphasize their

importance in this just-in-time context frequently creates a fundamental shift in mindset while candidates are preparing for job interviews.

Toward the end of the internship experience, the interns take part in a teacher job fair. Schools from the region and across the country participate in the fair, which not only affords an opportunity to rehearse interviewing skills, but also allows the interns to begin making important personal connections within the education community. It also allows the interns to exhibit knowledge and practice skills developed during the previous just-in-time interview experiences and panels.

Conclusion

Professional learning communities, literacy development, and interview preparation represent three areas of just-in-time learning which provide interns with real-world connections to content and experiences encountered earlier in their teacher preparation coursework. As previously mentioned, it is the immediacy of the just-in-time training which amplifies its effectiveness.

In the first case, the very structure and philosophy of effective PLCs create an expectation that every individual within the school is responsible for adhering to the tenets of PLCs, established to support academic achievement for every student. In this context, interns quickly realize they are not an exception, and they are also meant to contribute to that cause. This realization is supported by the just-in-time training efforts of the instructor within the hybrid-course context.

Although specifically addressing only one aspect of literacy development, the importance of the second area of just-in-time training lies primarily in the realization that published instructional materials are meant to provide a framework for instruction and not constitute the entirety of instructional choices. Such materials may provide multiple ideas for lesson plans, but teacher knowledge must be incorporated into the daily lessons if they are to be effective for individual students. While the interns may not be seasoned enough to quickly determine whether a lesson has been entirely effective, encouraging them to use their knowledge to supplement a lesson in this just-in-time context allows them to contrast the differing approaches and to receive immediate feedback from their students.

Finally, the immediacy of interview preparation just as interns are beginning their job search seems quite obvious. The true importance of this just-in-time training lies in the fact that for the majority of the interns, this is the first time they will be seeking a professional job. To be successful, they need to understand that this job search will almost certainly be unlike any they have previously experienced, and they cannot approach it using the same strategies they have used to obtain summer jobs in the past. Providing them with these just-in-time opportunities helps keep their focus and efforts aligned as they pursue their professional careers fully during this window of opportunity.

Ultimately, it is the purpose of just-in-time training to assist the interns in rapidly assimilating into the school culture where they will be working and to help them more quickly become contributing members of faculty for those schools. In the preceding examples, the efforts of just-in-time training assist in meeting the just-in-time learning needs of the candidates while participating in their student teaching internship experience.

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Mind Brain and Education Dialogue: Elevating Practitioner Perspectives

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Abstract

Mind Brain and Education (MBE) is a new yet controversial discipline that seeks to inform the practice of teaching through the collaboration of cognitive neuroscience, psychology, and educational research. This article seeks to elevate practitioner voices in the connection of MBE theory to teachers' practice. Four educators provide their perspectives and consider the possibilities MBE can provide for affirming and changing teaching practice. Educator voices are elevated here to contribute to the dialogue within this of this burgeoning discipline.

Introduction

Teaching is an intensely complex undertaking where the planning, decision making, and actions of the teacher directly impact the learning and change in the pupil. Practitioners dedicate their professional lives to unraveling the complexity of each learner in order to effectively impart knowledge and skills. Mind Brain and Education (MBE) attempts to support this process of unraveling with the hopes of supporting efficacious teaching (Tokuhama-Espinosa, 2011). MBE is the collaboration of behavioral psychology, educational research, and neuroscience with the intent of researching teaching and learning ubiquitously and for the whole student (Whitman & Kelleher, 2016). As teachers learn about MBE and consider the practical implications on their teaching, they must confront their own beliefs about learning and teaching in the process of changing their practice or confirming the benefit of their pedagogical and curricular decisions.

In this paper, four educators from different backgrounds and with varied perspectives present their experience and beliefs about MBE and how it impacts their teaching practice. This project was borne out of a graduate class focused on educating digital age learners with keen interest in understanding and implementing effective teaching practices. The purpose of this paper is to add practitioner voice to the MBE discourse, to increase the dialogue between practitioners, psychologists, and neuroscientists, and to connect the most recent research and theory to teacher education. Highlighting practitioner voices and perspectives is essential to the implementation of MBE practices. Practitioners are the professionals who are tasked with transforming theory into practice as they create and deliver curriculum in a cross disciplinary approach to teaching and learning (Gore & Gitlin, 2004; Houston, 2020).

Literature Review

Since the 1990's and at the onset of the integration of traditionally separate disciplinary fields that have come together to form MBE, there has been a trepidatious perception from the separate fields involved (Bruer, 1997; Horvath & Donoghue, 2016). Whether or not all the disciplines could play nicely in the same sandbox seemed to be the question (Schwartz, 2015). Blake and Gardner (2007) reflect on their investigation of MBE through multiple years of teaching graduate students to think critically through the multidisciplinary lens. They document that, although difficult, it is possible for multiple disciplines to contribute toward a common goal

and eventually impact educational practice (Blake & Gardner, 2007). With the goal of collaboration (Schwartz, 2015) and constant improvement (Whitman & Kelleher, 2016), this section will discuss relevant literature that points to the need for teacher's perspectives and the impact of MBE on teacher's perceptions and practice.

Evaluating the congruency of the transdisciplinary (della Chiesa et al., 2009; Schwartz, 2015) of MBE is a difficult task. The linear transmission of knowledge flowing from neuroscience to cognitive psychology and on to educational practice (Bruer, 1997; Horvath et al., 2016) is limited in focus. It seems logical that brain imaging and neuroscience questions would filter to behavioral psychology to explain and define behaviors. Then interventions to behavior would impact educational research and practice. However, Horvath et al. (2016) explains that although prescriptive practice from neuroscience to education is not established and may be a chasm too broad, it is not inconceivable that knowledge of both the brain and behavior can impact teaching. The query that Horvath et al. (2016) conjures, and Bowers (2016) reinforces for educators asks if there is value in learning about the science two levels above a teacher's position. They posture that there is not. However, the perspective of the teacher is important here. The teacher is the professional in the classroom, working with students and observing learning on a daily basis. Therefore, when we ask the teacher, "can MBE help?", their response should be included in the conversation.

Fischer (2009), in great detail, discusses the importance and value of teachers and educational researchers learning about MBE. As with any growing discipline or area of study, new information and findings contribute to the overall impact of the discipline. MBE is now decades old but relatively young for a discipline (Blake & Gardner, 2007), yet the discussion of MBE has been mostly voiced by the experts in neuroscience and psychology. The information silos that MBE, as a discipline, seek to reject is what is limiting its practice in the pedagogy of teacher practitioners (della Chiesa et al., 2009; Bowers, 2016; Fischer, 2009; Hobbiss et al., 2019).

In recent years teacher educators and educational researchers have begun considering how MBE can impact practice (Tokuhama-Espinosa, 2010, 2011, 2018; Whitman & Kelleher, 2016; Wilson & Conyers, 2020). The themes that have emerged to have the most impact are evidence of neuromyths (Blanchette Sarrasin et al., 2019; Sarrasin et al., 2019; Tokuhama-Espinosa, 2018; Whitman & Kelleher, 2016), the evidence of neural plasticity (Tokuhama-Espinosa, 2018; Whitman & Kelleher, 2016) evidence of brain pathway differences among those with disabilities (Wilson & Conyers, 2020; Zadina, 2014), and that executive function and emotions are connected when learning (Whitman & Kelleher, 2018; Wilson & Conyers, 2020). Although, as Bruer (1997) indicates, many of these can be seen through behavioral psychology, brain imaging can be the stamp of approval for many educators.

Suggestions for more effective and inclusive dialog between the MBE stakeholders' points toward the development of a shared vocabulary (Hobbiss et al., 2019; Knox, 2016). The advent of literature that is accessible and readable for the practitioner can support the development of a shared vocabulary (Tokuhama-Espinosa, 2010, 2018; Weinstein & Sumeracki, 2019; Whitman & Kelleher, 2016), but progress can still be made.

After a deep dive that included a review of MBE literature and multiple reflective activities, four educators from different disciplines and with varied experience respond to their encounter with MBE and how it impacts their practice. The following perspectives are focused on each practitioner's perspective researching MBE in an intensive graduate survey course.

Much like Kelleher and Whitman (2019), they found MBE to speak to their practice and support refining how they teach.

Practitioner Perspectives

Practitioner A: Library Media Specialist

As an elementary school library media specialist, I have a unique opportunity to teach students a variety of topics in a variety of ways. Every enrolled elementary student visits the library once a week for an hour and while I have them, I try to make our time together as fun as possible while teaching the fundamentals of the library including not only a love of reading, but also research skills, digital citizenship, and problem solving through makerspaces.

Six core values drive my instruction. These values have recently been adopted by the state of Arkansas through new standards for all library media specialists and they include, Inquire, Include, Collaborate, Curate, Explore, and Engage. While investigating MBE, I was struck by how well these core values fit MBE strategies specifically in relation to student reflection, personal relevance, growth mindset, and being part of a learning community (Wilson & Conyers, 2020). Wilson and Conyers (2020) suggest 21st century students not only need to learn classic reading, writing, and arithmetic skills, they also must have a working knowledge of social emotional, critical thinking, and problem-solving skills in order to be ready for the demands of the 21st century world. The new emphasis on inquiry, collaboration, and exploration in the new standards especially emphasize the growth mindset MBE strategies by encouraging Makerspaces in the library. McQuinn (2018) reminds us that through Makerspaces, students learn to be less afraid of failure and more persistent. I have been able to do many things supported by MBE research before, and I'm excited to be able to rethink what I do with not only my new standards, but the MBE strategies in mind.

As a librarian, through reading aloud, I am able to spark conversations about different topics, encouraging the students to reflect on their beliefs, formulate an opinion, and learn how to be part of a community by providing a safe place to voice those opinions. While teaching the research process, I am able to show students how to effectively take notes and especially with my fourth graders, stress executive function and study skills. I also plan to make some important changes in the way I do things as well. My youngest students often have trouble using unfamiliar technology and as a result, try to quit or get me to work the technology for them. In the past, I'm embarrassed to say that I have often just given in and done it for them because I felt like I needed to move on to something else. From now on, I am going to promote a growth mindset and encourage my students to keep trying even when I am dying to just do it for them. When my students struggle with research, instead of finding something for them, I will provide scaffolding to help them find the answer on their own. Before learning about MBE, I was very apprehensive about the shift to the six core values because they were so much different than our previous focus, but now I am excited because these go hand in hand with current, research-based theories. As I read the literature, I was inspired to take the emphasis from me teaching a skill to the student learning how to use the skill.

As I was reading through the literature, I was dumbfounded by the educational neuromyths that I have believed my whole teaching career, and truthfully, a little angry. New educational theories come and go and once we get comfortable with one thing, something new seems to always come along. It never occurred to me that what we are asked to do in the classroom may not be based on good solid research, and I am encouraged that through collaboration with neuroscientists and psychologists, we will be able to develop good solid, long-

lasting strategies that give teachers the freedom and opportunity to do what's right for their students. I'm excited to think that through MBE science, we may be able to use research to stick with something that works and not having to learn a new system every few years. I know that I will be more critical and thoughtful when I plan lessons for my students as a result of learning these strategies. I will take the time to search for current research and seek out professional development opportunities based on that research. I'm excited to empower my students with the knowledge that deliberate effort can cause your brain to change. As Wilson and Conyers (2020) wrote, "Especially as the mind, brain, and education field gathers momentum, this is an incredibly exciting time to be an educator" (p. 11). I couldn't agree more. I'm excited that because of technological and scientific innovation, we are able to connect the burgeoning fields of neuroscience with psychology and educational research to improve teaching practices.

Practitioner B: High School Teacher

I have taught different ages in a variety of roles, and settings for 29 years. I have worked as a special education teacher, an English as a Second Language (ESL) teacher, a program coordinator, and a general education English teacher. I currently work with Juniors and Seniors, who want to become teachers or have an education-related career.

MBE leaves me inspired and motivated to make changes to my current teaching practice and continue current practices. Education research involves gauging, reflecting, adjusting, and action in the classroom. These efforts by teachers are respected and refined by the advancements in neuroscience and the acknowledgement of behavioral and cognitive psychology. The collaboration of MBE disciplines gives me confidence and relevant research to communicate to parents, leaders, policymakers, and other MBE professionals what I do with students and why. (Whitman & Kellerher, 2016, 2018). I operate with an MBE perspective now by performing intentional action research, documenting, and sharing these results. This approach helps me be more innovative with instruction and gives me clarity and reason to how I address class behavior or social-emotional issues. The MBE approach I have learned about supports my daily efforts to have relationships with parents and colleagues, it equips me as I continue to discuss approaches to student wellbeing with them (Whitman & Kellerher, 2018). MBE provides the vocabulary and research to describe what I am already doing. Process laws looping model of a student-teacher, give and take relationship aligns with my efforts to critically examine what is happening in the classroom each day with students (Steenbeek & van Geert, 2015). This relationship helps me evaluate how I receive my students, their words, body language, engagement, and how I respond. I am encouraged to continue to spend time on essential professional skills. These necessary skills (i.e., critical thinking, problem-solving, creativity, communication, project management, teamwork) will prepare students to be part of a transdisciplinary team as a teacher-researcher (Knox, 2016).

A common claim is MBE can be "used as a tool to predict developmental learning disorders before they manifest in behavior. It will allow teachers to provide specialized instruction to children early when they have the greatest effect" (Bowers, 2016, p.8). I hope MBE will be able to address some breakdowns in the 504 and special education communities (as I perceive them), such as under-qualifying, over-qualifying, and determining better timelines and criteria for assessing students. Meetings are supposed to be interdisciplinary. I rarely have seen outside doctors, scientists, psychologists, or psychiatrists at a 504 or IEP meeting.

MBE supports my thinking outside the box. MBE prepares me to articulate what I do and why I am doing it (Daniel, 2017). I appreciate the comment, "we give them a pathway to evolve credibly over time (Whitman & Kelleher, 2016, p. 228). MBE motivates me to continue using

project-based, problem-based, and profession-based learning. MBE faces challenges and obstacles (Knox, 2016). Everything educators have done over the years has come with challenges and obstacles. MBE articulates the need for transdisciplinary research, aligned vocabulary, and looking at the whole child through not one lens but three. I think MBE supports the whole child and raises the value of educators, sadly not in the public's eye. I am encouraged to take a moment of pause and proceed with caution, careful not to over-focus on certain aspects (Steenbeek & van Geert, 2015). I need to do this with my new learning, make calculated changes and modifications. As stated in an article, I need to become my own “process researcher” (Steenbeek & van Geert, 2015, p. 85). As I daily work with teenagers and help prepare them for an unpredictable future in education, MBE is an excellent avenue to explore and integrate into their learning. The transdisciplinary approach will be vital in the digital age of teaching. The teenagers need to be part of the change.

I will make some modifications to my current practice. I will use MBE language with colleagues and students to encourage others to see things through an MBE lens. This is necessary as I model profession-based vocabulary for young pre-service teachers. I will add MBE words to our class as part of our driving vocabulary. These are words I expect to hear students using comfortably, easily, appropriately, and frequently before the end of the year. I will be intentional in discussing why to research and the value of reflection. We will discuss the impact it has on them now, later as teacher researchers, and moving from novice teachers to expert teachers. I want them to know they are brain changers and have a role in how education will change in the future. I will approach my year two students differently when they start their college psychology class and read Dweck (2006). I will present the value of the content to MBE and the impact on their remaining schooling and role with future students. Preparing preservice teachers to have a cross-disciplinary vocabulary to interact with psychologists, doctors, scientists, and other professionals will set them apart and prepare them to be MBE shakers and movers. I am adding content to our pre-service curriculum this year in hopes to reduce belief in neuromyths (MacDonald et al., 2017). Adding a Neuromyth busting research activity to our curriculum efforts will have a lasting impact. In one research survey, participants communicated they “did not feel their teacher education courses adequately identified common neuromyths” (Ruhaak & Cook, 2018, p. 160).

I am adding a section of learning about the brain to the curriculum to prepare my students better. Brain content is valuable for them as future teachers and stakeholders on a transdisciplinary team. These are research-informed decisions about content lacking in most teachers' education (Whitman & Kellerher, 2016). Finally, I will add the top 12 research-informed strategies to our strategy discussions. Students will sort the research-informed and the unconscionable list. They will discuss with peers, research on the spot if they don't understand the strategy, give their assessment, and decide if they have seen any before in a class or possibly with a different name. I will post it in our room for reference.

Practitioner C: Middle School Mathematics

In today's classroom, teachers face the challenge of keeping the balance of student engagement, impactful teaching, and meaningful integration of technology. As a seventh-grade mathematics educator, I am always trying to make connections between the math content and my students' lives. I teach a wide range of students in various mathematics courses that include students in the gifted and talented program to students with disabilities, and all students in between. Many times, I find myself looking for resources and answers on the internet that help me to push all my students to high levels of rigor and conceptual understanding. More times than

not, I become overwhelmed by the information and do not know where to start. With my new knowledge of MBE science, I am able to start with the basics that bring what is truly best for my students back into the classroom.

MBE has opened my eyes to the importance of neuroscience research in the classroom and how it can promote learning for all students (Whitman & Kelleher, 2016). This idea of “all students” really resonated with me because I want to see all of my students being successful in the classroom. I have attended many professional development courses and many times they are focused on one “type” of student. For example, a professional development (PD) titled “How to engage the unengaged” focused on strategies for students who were checked out of the learning process. I have never attended a PD that talked about every student and what was best for each one of them within the same classroom. Reading through research on how the brain functions and I realized how it allows educators to engage their own neural plasticity through an understanding of neuropsychology and neurophysiology. In a study on the neuropsychological differences between students with and without learning difficulties, it was concluded that there is a need to develop training within neuropsychological interventions in educational settings (Martin-Lobo, et al., 2018). This is where the collaboration between psychologists, neuroscientists, and educators can come together to conduct this research that is relevant to what is happening in the classroom. As MBE evolves, develops effective practical teaching practices, and becomes more known throughout the education setting, I hope that a collaborative research platform becomes accessible. Hobbiss et al. (2019) mentioned the prototype of a website called UNIFIED was to be piloted in the summer of 2019. The idea behind this website is increasing collaboration among educators and researchers. This would be a great tool to generate teacher buy-in to the understanding and use of MBE in the classroom. As I continue to follow MBE science, I will plan to actively engage in these types of collaborations.

Whitman and Kelleher (2016) highlight a list of practices that teachers should not do. They coined this “the unconscionable list”. There are a few items on this list that I have knowingly incorporated into my teaching practices. The most noted is starting class by going over homework. As a math teacher, this is the number one thing my mentors and college professors did in the math field, so I followed in their footsteps. Students are going to remember what takes place the first and last few minutes of class (Whitman & Kelleher, 2016), which is one reason it should not be wasted on going over homework. What I have learned through this introduction to MBE is that I want to begin classes by engaging students through reflection and inquiry as well as targeted mathematics skill practice.

Another enlightening moment through learning about MBE was their different take on learner modality. In years past, I have been told to teach toward the student’s learning style, if the student is a visual learner use pictures and if they are a kinesthetic learner use manipulatives. This is an unrealistic task to complete when you have one-hundred and fifty students throughout a school day. The idea of learning styles when it comes to MBE science is that teachers should vary in modalities based on the content, not the student’s perceived preference. Students learn best when they experience a range of modalities (Whitman & Kelleher, 2016). This idea, backed by MBE research, has changed my way of thinking when lesson planning and providing high-quality content for my students. As I move forward in my educational practices, I will continue to follow MBE research and work with my peers to incorporate MBE research into the classroom. MBE will allow me to do what is best for my students' learning process and will allow positive change in the education system along the way.

Practitioner D: Corporate Trainer

MBE science is increasingly at the forefront of professional training and education regardless of one's age. As a worldwide program manager in certification at a leading global technology company, I have had the opportunity to work with many adult learners. These learners ranged from novice to expert. At the highest level of certification and learning, great professional, personal, and monetary rewards are given. Regardless of the level of expertise or age of these learners, I have discovered that MBE science plays a major role when considering adult continued learning opportunities such as professional development. The motivation as to why adults want to learn a given knowledge or skill set may vary greatly through life. I've watched many adults build their careers from foundational knowledge through advanced skill implementation and have been constantly amazed as to how these learners develop through time. Achievements and certifications are critical to career advancement. The acknowledgment of the differences between the novice and expert roles shows that brain plasticity is an important component of continued learning. As discussed by Whitman and Kelleher (2016), the mindset of an individual needs to be a deliberate one. They call upon educators like us to create a "yet sensibility" among each other, leaders, and students. In adults, the idea of a growth mindset or the "yet sensibility" is important to understand with the concept that the "aging brain retains a considerable functional plasticity, and that this plasticity is positively promoted by genes activated by different lifestyle factors" (Mora et al., 2007, p. 78). Furthermore, it is stated that "we know today that neural plasticity is still present in the brain during aging" (p. 78).

As we continue to learn throughout our careers and personal ventures, professional and individual goals need to be set. As educators, we need to see training and teaching as both art and science (Whitman & Kelleher, 2016). As corporations and executive education agencies plan on a certain set of skills needed with which to do a particular task or job, the "calibration of risk and reward, problem-solving, prioritizing, thinking ahead, self-evaluation, long-term planning, and regulation of emotion" is critical according to MIT's Young Adult Development Project (Simpson, 2018). Those of us who plan certification tracks, whether in education, medicine, or technology, need to consider these skills in order to provide our learners with the best possible learning opportunities.

In a best-practice situation, as a certification program manager, I would utilize subject matter experts to identify the skills needed in order to perform a given task. A job task analysis would be conducted with the subject matter experts to best identify the skills needed to best educate future teachers, medical doctors, or information technology engineers. Unfortunately, when working with adult learners, assumptions are made. When I first started this position, I assumed that working with adults would be extremely different than the early childhood students I had worked with previously. As it turned out, both my young and adult learners had more in common than I had thought. Much like the younger learners, the adult learners were motivated by some of the simplest acts. I have learned that getting to know your students other than strictly within the learning environment, is very important. This led to loyalty and trust which ultimately led to an excellent learning experience.

Moving forward, I would like to address the need for a more in-depth understanding of how the mind and brain interact with education in adults. With this information, we as individual instructors, as well as corporations will find that learning occurs on many levels throughout our lives, and we need to use this knowledge to better encourage our adult learners to participate in a life-long adventure in learning, professional and personal.

Shared Perspectives

Each of the perspectives above come from practicing educators. Their first foray into MBE and the connections they found have helped them think deeply about their own practice. Each educator considers with new information what practices are beneficial toward student learning and what practices they can retire. Among the perspectives we find a consistent acknowledgement of neuromyths that pervade teacher education and teacher dialogue. Each of these experienced teachers acknowledge how misunderstandings of learning (Weinstein, et al, 2019) had influenced their previous conceptions of teaching practices. An additional commonality that was shared among the educators was hope in the ubiquity of MBE. They each remarked that MBE suits all learners. When educators practice the best of cognitive and behavioral psychology confirmed by neuroscience, they can find success in teaching all students.

Conclusion

The authors here are not neuroscientists or psychologists, but they find value in the development of confirmatory conversations that can improve practice. Perhaps the most telling connection among the participants is that contrary to the idea that Sehgal Cuthbert (2015) proposes, MBE does not prescribe practice but provides confirmatory knowledge of learners which helps refine teachers practices within their disciplines. The purpose of this paper was to elevate the voice of professional educators in the MBE Dialogue. Although there is much to be discussed this foray into MBE provides new perspectives for educators and encourages practitioners to align their work with confirmed and validated teaching methods.

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Relationship of Academic Performance and Health in School of Education Programs

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Abstract

Historically, larger numbers of African Americans resided in the Arkansas Delta – a once prosperous area of fertile farmland and varied manufacturing businesses. People of African descent were the majority among those working on the farms and in the industries; employment prospects were plentiful. In recent years, the region's prosperity has been replaced by economic hardships and is home to some of the lowest median incomes and the highest rates of poverty in the nation. Thusly, along with the high rates of poverty, are health conditions and/or disabilities. Obesity, high blood pressure or diabetes exist in high rates among this population. There can also exist co-morbidities, which increase the impact on not only health, but success in academia and beyond. Students in the School of Education programs include teacher education, rehabilitation, and health, physical education, and recreation. These majors require students to have the physical and mental acuity to teach, coach, and counsel students, client and community, in their future profession. To suitably prepare students in these majors, it is imperative to assess their personal attributes as it relates to health issues and discuss the impact on their well-being, academic performance, and ultimately success as professionals in their individual careers.

Keywords: health, disability, students, academic performance

Introduction

What does academic performance encompass? Does it just have a singular identifying mark? Academic performance is defined mostly as a measurement of student achievement across various academic subjects or focuses. For that reason, the next question should be what factors affect student achievement.

Review of Literature

Academic Performance

Since research on academic achievement began to emerge as a field in the 1960s, it has guided educational policies on admissions and dropout prevention (Lavin, 1965). Scholars agree that students' academic achievement is a 'net result' of their cognitive and non-cognitive attributes (Lee & Shute, 2010; Lee & Stankov, 2016) as well as the sociocultural context in which the learning process takes place (Liem & McInerney, 2018; Liem & Tan, 2019). Identifying the factors that influence academic performance is an essential part of educational research. Previous studies have documented the importance of personality traits, class attendance, and social network structure (Kassarnig, Mones, Bjerre-Nielsen, A. et al., 2018)

Factors Affecting Student Achievement

According to StateUniversity.com, a diverse array of issues, including (but not limited to) parents' beliefs and expectations about education; the availability and quality of child care; family economic status; the persistence, or absence, of violence in a child's life; access to social services; physical and mental health issues; opportunities for constructive, healthy activities outside of school; and the nature and strength of school-community connections, can make a difference in a child's opportunities to do well in school.

The World Health Organization definition of health (1948) says that ‘health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.’;” therefore, health, with the physical and mental well-being aspects—has associations to students’ prospects for doing well in school. Students who are physically ill fail to attend classes regularly, and when they do attend, they are often unable to focus on their work. Students with undiagnosed and untreated mental health problems experience a range of difficulties. Though, despite the persuasive significance of good physical and mental health to students’ projections for academic success, large numbers of American children/students have inadequate access to appropriate health care services, even on college campuses. Not shockingly, access to quality services is often connected to family income. The less income of the student’s family, the less likely the student is to have regular medical care or even know of their medical status.

Coincidentally, other significant risk factors, particularly for adolescents, are drugs and alcohol. Drinking, smoking cigarettes, and using harder drugs, can cause substantial long-term physical and mental health problems. In the short-term, use of many of these substances can cause reduced class attendance and general inattention to class work.

Methodology

Research Design

This study sought to identify the impact of health issues on the well-being, academic performance, and ultimate success of students. This study is a collaboration between two faculty members at a regional university who are faculty in a School of Education (SOE). Within this School, the researchers represent Rehabilitation and Counseling, within a Department of Curriculum and Instruction, the Graduate Program, and a Department of Health, Physical Education and Recreation (HPER).

Research Site and Participants

The study was conducted at a regional land grant institution. Students enrolled in the School of Education during the Fall 2019 semester were surveyed for this study, consisting of graduate and undergraduate students. This convenience sample provided access to students in which both authoring professors were the professor of record.

Method of Data Collection

Data was collected by surveys administered electronically and accessed through the student portal Blackboard, the course management platform of the university. The convenience sample of four undergraduate Rehabilitation courses and two undergraduate HPER courses encompassed all levels of students from freshmen to graduating seniors.

Survey

Students in the School of Education were given a 17-item electronic survey that asked demographic questions such as age, gender, and academic level, employment status, university classification, where they are from, health insurance, questions about existing health issues, and nutrition and exercise habits. The estimated time for completing the survey was 20 minutes. A total of ninety surveys were disseminated and 15 were received (N=15); making the return rate 17 percent.

Data Analysis

The collected data had quantitative components, consisting of counting frequencies. Utilizing a qualitative approach, the survey items were reviewed for common themes, and any indication for various health issues or conditions were categorized under physical and/or mental health.

Results

The student ages ranged from 19-21. The majority of the students identified as Black or African American. The largest representation of majors were undergraduate students from HPER, largely male. The largest representation of students that were teaching education majors were female. The majority of the students hailed from Arkansas, with Texas in second place and Tennessee in third place. There were a robust number of students from California. The majority of student respondents stated their parents are responsible for their health insurance, with the majority stating they did not work a job. No student provided their height and weight measurements. The most common grade point average range was 2.3 to 3.5, and most students were sophomores.

In the health issues section of the survey, 75 percent of students reported they did not smoke; however, 75% reported they did drink alcohol more than they should.

Health issues reported by students included depression, diabetes, and high blood pressure. Fifty percent of students from HPER stated they work out five (5) times per week or more, whereas 25% of students from Rehabilitation stated they work out five (5) times per week or more. Documented disabilities reported included Attention Deficit Disorder (ADD), Attention Deficit Hyperactivity Disorder (ADHD) and degenerative disk problems.

None of the student respondents stated they eat the recommended amount of vegetables and 75% stated they are not responsible for their own meals.

Discussion

School of Education

This research suggests that students, that is, young adults, are being affected by health issues and personal habits that could be barriers to student success in their prospective fields of study. These revelations demonstrate that although the goal of the School of Education is to educate and prepare students for the workforce in their prospective disciplines, it is also imperative that that workforce is a healthy workforce, aware of their own health assessments. The representation from the individual disciplines is not surprising, as health, physical education and recreation majors tend to be more male dominated because of the emphasis on athletics and related fields. Nationally, more education majors are female; also reflected in the student cohort of education majors for the representative institution. About 76 percent of public-school teachers were female and 24 percent were male in 2017–18, with a lower percentage of male teachers at the elementary school level than at the secondary school level (Digest of Education Statistics, 2019). These trends may implicate an opportunity to further study gender differences, patterns, and behaviors in the utilization of health-related goods and services for different health conditions commonly impacting college students.

These results reveal that there exists a prime opportunity to focus on health-related physical and mental outreach education as a necessary tool so that the whole body can be addressed as we prepare SOE learners for the workforce. The HPER students, just one segment of the SOE student body, is obviously more focused on some aspects in their physical health versus the non-health majors due to the nature of their educational trajectory; however, bridging this gap with the other SOE majors should be an overall focus of SOE. Closing this gap could potentially positively affect academic success as it relates to overall health and would be a major step in the right direction. In addition, collaborating with other disciplines and departments across campus would increase not only knowledge on the subject but a general uptick in academic success that can filter out to the entire student population. Reviewing and utilizing

university and community resources to fill the gaps between academic success and health can assist the student in reaching academic and career goals.

Finally, collaboration with local secondary schools is important. In this way, we are helping our students enhance their skills, but more importantly, perhaps detecting negative academic factors in younger students, addressing and intervening before these students head to high school and college.

There is a vast amount of literature that exists about physical activity and the positive effects on academic performance in primary school and secondary education; as well as physical activity and mental health and its importance for college students; but there is a dearth of literature that exists within these areas on students that attend institutions in rural states, states situated in the Lower Mississippi River Valley Delta Region of the United States, and also focusing on factors influencing academic success, trauma, stress, emotional well-being and academic performance.

The Healthy People 2030 (n.d.) goals specifically target mental health recognizing that about half of all people in the United States will be diagnosed with a mental disorder at some point in their lifetime. Healthy People 2030 focuses on the prevention, screening, assessment, and treatment of mental disorders and behavioral conditions. The Mental Health and Mental Disorders objectives also aim to improve health and quality of life for people affected by these conditions (Centers for Disease Control). Mental disorders affect people of all age and racial/ethnic groups, but some populations are disproportionately affected. Estimates suggest that only half of all people with mental disorders get the treatment they need. In addition, mental health and physical health are closely connected. Mental disorders like depression and anxiety can affect people's ability to take part in healthy behaviors. Similarly, physical health problems can make it harder for people to get treatment for mental disorders. Increasing screening for mental disorders can help people get the treatment they need.

The mental health needs of college students are prevalent. The American College Health Association Spring 2015 National College Health Assessment II (ACHANCHA II) indicates that mental health issues on college campuses affect many students: 35% of college students reported being so depressed in the past 12 months that it was difficult to function, nearly 10% endorsed serious consideration of suicide in the last 12 months, 24% had been diagnosed with or treated for a psychiatric illness, and 13% acknowledged having a diagnosis of depression (American College Health Association 2015).

Implications

Educators should work to incorporate meditation or stress management techniques in their courses/classrooms, within academic units, and university wide. Students can easily complete exercises during class or have university colleagues plan a short exercise to spotlight health and wellness coping methods. Mindfulness practice has now gained growing attention in educational settings (Bender, Roth, Zielenski, Longo, & Chermak, 2018). Departing from the more traditional non-cognitive, psychological predictors of performance shown in the previous papers, Elphinstone, Whitehead, Tinker, and Bates (2019) focus their investigation on the role of mindfulness in fostering academic performance in a sample of Australian undergraduates. Reflection exercises are another way for educators to assist with students' mental health, especially during this time of a worldwide health crisis.

The Arkansas Department of Agriculture (n.d.) has a Farm to School and Early Childhood Education program. The program enriches the connection communities have with fresh, healthy food and local food producers by changing food purchasing and education

practices at schools and early care and education sites. Students gain access to healthy, local foods as well as educational opportunities such as school gardens, cooking lessons, and farm field trips. The School of Education could do a similar program or activity with the School of Agriculture with students, or with campus or local extension units. Additionally, the program could assist the university students with making informed food choices that contribute to healthy living.

Although there are limitations to the sample size and number of respondents for this study, surveying matriculating students and their health habits is a common method in HPER courses. This study highlights the importance of the need for the School of Education to implement programming to address these health-related academic challenges to academic success. Ultimately, all students at the institution can benefit from such programming.

Conclusion

Colleges and universities do not exist in a vacuum. The last year has shown us that collaboration, reputable information, along with personal and public responsibility affect everyone. A host of factors contribute to students' prospects for academic success. Some students come to a school with all they need: stable and supportive families, adequate financial resources, and good health. For students who do not enjoy these advantages, making provisions and/or doing what we can to help them meet outside-of-school challenges can provide just the boost they need to succeed in school.

Feedback from the surveys will be utilized for future training and education for students and professors. This study was completed a mere semester prior to the Spring, 2020 COVID-19 pandemic which caused all State educational institutions to pivot to remote learning full-time. Currently, although the State of Arkansas is relaxing some pandemic protocols, we are still in a pandemic, still practicing personal safety. It is understood by many that we cannot return to the old way of how we used to do things. Proving innovative, unique and responses to the post-COVID-19 pandemic fatigue will be useful in programming that can be organized and replicated and organized for students, faculty and staff to provide motivation, support, and education to the busy and complicated lives of our students.

This study has far reaching implications and opportunities for future programming, outreach, and education with the School of Education, which is promising. In light of recent health events that have plagued the world, the United States, the State of Arkansas and our university community, it is imperative that we not only focus on educating the student learner to ultimately successfully work within their chosen discipline, but it is imperative we educate the student learner on how to holistically live and work so that they can be the best representative of themselves as products and representatives of themselves, their institution and their families.

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