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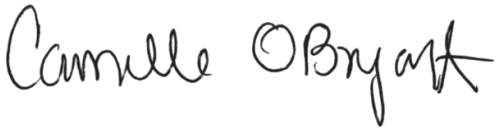
A Message from the President:

Camille O'Bryant

About seven months ago, I wrote my first "message from the President" for the *Chronicle*. That just seems like it was yesterday. I think that many of us can relate to how quickly time flies by – especially in this age of technology, tweets, posts, texts, e-mails, and more. In that message, I talked about how it was truly and honor and privilege to serve as NAKHE President. Now, I really know why I felt that way. The members of the NAKHE board of directors along with all the people who serve on various NAKHE committees and sub-committees are without a doubt some of the most dedicated and passionate higher education professionals I know. The level of collegiality and willingness to submit reports and attend multiple teleconference calls was absolutely astounding. I am confident that all their hard work and dedication to making NAKHE one of the premiere professional organizations in higher education will be evident in the quality of the program of the collaborative congress in San Diego as well as the articles and stories published in the *Chronicle* and *Quest*.

I just want to share a few highlights of a few of our accomplishments this past year; none of which would have occurred had it not been for the creative leadership of all of those who serve NAKHE! We have met the recommendation to expand the editorial board of Quest so that the expertise of the reviewers ranges across more of the sub-disciplines in Kinesiology and also span the globe by having reviewers from the United States, Europe and Australia. Visit www.nakhe.org and read the information about the 2014 NAKHE sponsored collaborative congress; Each of the strand leaders is a highly recognized and accomplished teacher-scholar-administrator. I am really looking forward to the roundtable discussions and Scott Kretschmar's keynote address! I really do expect that we will all walk away from that congress with re-kindled energy for doing what we all can in our professional roles to ensure that we are working together – across and within our disciplines to foster physically active and holistically healthy lifestyles for ALL people. In addition to all the hard work that has gone into planning the 2014 NAKHE sponsored collaborative congress, board members had many outstanding recommendations from the Future Directions Committee. One of those recommendations was to do further work on NAKHE's strategic plan. The board took that recommendation very seriously and supported the idea of making the development of a strategic plan for NAKHE the focus of the summer 2014 Leadership Conference in Atlanta, GA.

I hope you enjoy reading this issue of the *Chronicle* and really look forward to connecting with everyone who is able to attend the congress in San Diego. On behalf of the NAKHE board of directors and ALL the wonderful people who volunteer their time to serve on the NAKHE committees; I want to thank you all again for your membership in and support of NAKHE. It has been a pleasure serving as your president this past year. I will continue to serve NAKHE as past-president for the next two years and am very excited to do what I can to assist incoming president Steve Estes. Best wishes to you all as the winter holidays approach. See you in San Diego!



Editor's Note

Dr. Britton Johnson, Editor

The time has come for the next edition of the *Chronicle of Kinesiology in Higher Education*. This is the first edition of the *Chronicle* that will include peer reviewed articles in some time. I am excited about the future of the *Chronicle* and the quality of the articles that will be published in future editions, both Peer-reviewed and Editor-reviewed.

I would like to begin by acknowledging several people who have been instrumental in making the recent changes to the *Chronicle*. First, Camille O'Bryant has been amazing as the NAKHE President. Thank you to Camille for all her hard work and support as we have updated, revised and improved (in my opinion) the *Chronicle*. Second, Steve Estes has been of great value to me in assisting any time I had any questions with the publication of this journal. Finally, to Taylor and Francis, and especially to Krish Singh and Christina Correnti, thank you for your hard work to make this edition possible.

I would be at a loss without the Associate Editors who have put in such hard work to recruit, review and write articles for this edition of the *Chronicle*. Their hard work and dedication have made this edition a reality. Please contact these Associate Editors if you are interested in future publication in the *Chronicle*. They are listed on page 56 of this edition.

Additionally, the Chronicle has a new submission procedure. In the past, when the editor has changed, the e-mail address for submissions has changed to the e-mail of the new editor. From now on, there will be one e-mail address to submit questions and manuscripts to. This new e-mail is editor.chronicle@nakhe.org. Please feel free to e-mail me there with any questions or future manuscripts.

My last comment would be to encourage everyone reading this to attend the NAKHE Collaborative Conference in January. Betty Block (NAKHE Vice President) has put in countless hours to make this conference the best one ever. I, personally, am greatly looking forward to the events in San Diego.

Please do not hesitate to contact me with questions, or to submit a manuscript for possible publication (Peer reviewed or Editor reviewed) in the *Chronicle of Kinesiology in Higher Education*.

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Current Issues

Attitudes Toward Physical Education Among Urban Middle School Children

PEER REVIEWED ARTICLE

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Abstract: The purpose of this study was to evaluate attitudes toward physical education of children in urban middle schools. Participants were 204 middle school children from urban communities in the northeastern region of the United States who participated in a survey with direct administration. Results indicated that the attitudes that children viewed most important to the physical education curriculum were teacher-infused enthusiasm, a teacher's emphasis on the importance and fun of physical education, and the student's recognition of the applicability of physical education throughout life.

The way that physical education teachers present their lessons, as well as the way they structure and develop effective curricula, should take into account the attitudes that students hold toward physical education. In so doing, teachers can have a positive influence on those student attitudes. Bibik, Goodwin and Omega-Smith (2007) postulate that children participate more readily in physical education lessons when they enjoy the activity. Additionally, if students do not feel that the lesson is important to them, they will be less likely to participate willingly and enthusiastically. Children's attitudes regarding physical education and the pedagogical methods employed by their teachers have an effect on whether the students like the activity and the teacher (Courtier, Chepko & Couglin, 2007). A teacher who demonstrates positive attitudes toward physical education may have a strong influence on the way in which the students view the activities. Courtier et al. (2007) posit that students participate in physical education because they like team sports, learn new games, have choices in selecting activities and have fun. These findings demonstrate that students would like to have an active voice in selecting their activities. In the long term, a child's decision to continue participation in lifelong physical activities may be influenced by the attitudes formed by the child toward physical education during their middle school years.

The Theory of Planned Behavior (TPB) describes that a specific behavior may be determined by a student's intention to execute that behavior (Azjen, 2012). Intention is governed by the student's attitude toward the behavior and the influence of the child's surroundings. TPB is made up of six models that reflect an individual's control over a particular behavior. One of the six constructs is attitude. Attitude is a construct that demonstrates the level to which a person demonstrates a positive or negative opinion of a particular behavior (Azjen, 2012). TPB may reflect that psychosocial aspects such as attitudes toward physical activity, intentions to be active, and enjoyment of physical education may have control over a variety of behaviors such as participation in lifelong physical activity (Felton et al., 2002).

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Today's youth are more aware than in previous generations as to what they view as valuable choices of physical activities in their lives. Competitive sports are not always the first choice of activities for middle school children. At this age, socialization and cooperative games provide diverse opportunities for students to acquire abilities that may be utilized throughout their lives. Other areas such as Project Adventure, cooperative activities, team building games and group challenges provide stimulating environments for children who do not seek competitive game situations. Children who are not highly skilled in a specific sport may harbor negative attitudes toward that activity due to past experiences and lack of success during these activities. These students are more apt to develop negative attitudes toward physical education lessons and teachers because they feel uneasy and do not enjoy practicing sports due to their lack of skills (Bibik et al., 2007).

A considerable decline in positive attitudes toward physical education occurs among students in the middle school years (Silverman and Subramaniam, 1999). This finding may partially explain the decline in physical fitness and the commensurate obesity pandemic. Currently in the United States, the incidence of childhood obesity is triple what it was 30 years ago (National Center for Chronic Disease Prevention and Health Promotion, 2013). Obesity in children has increased between 1980 and 2010 from 7 percent to 18 percent in 6 to 11 year olds, and from 5 percent to 18 percent in 12 to 19 year olds.

The attitudes toward physical education of children in their middle school years is of concern for educators and parents due to all that is happening to 'tween' children, ages 9 through 12 years. Most commonly in this time period, children are beginning their puberty and an awakening of their own sexuality. They face internal conflicts about ethical and myriad health issues such as the use and abuse of alcohol, smoking and drugs, to name a few. The media and the proliferation of the Internet strongly influence their attitudes toward their roles and lifestyles within society. Living the green, healthy, and active life is presented alongside alternative, yet attractive, sedentary and unhealthy choices. Attitude Theory suggests that emotion and intelligence have an effect on the individual's participation in a physical activity (Bernstein, Phillips & Silverman, 2011). As they explain, the extension of this corollary is that students who enjoy participating in physical activities will likely continue to pursue similar behaviors throughout their lifetime.

It is therefore essential for educators to intensify efforts to address the middle school years when children establish strong attitudes about physical activity as they mature, gain more independence, reflect from personal experiences and accomplishments, and develop routines and skills. Adolescence is also a vital time when children can develop the desire to incorporate positive attitudes toward physical activities into their future secondary school years and to live an active, healthy lifestyle during adulthood. Organized lessons in physical education can help children develop positive attitudes about physical activity, fitness, and well-being to prepare them to become healthy adults. Curriculum changes may be addressed by physical educators when they are aware of the student's attitudes (Bernstein et al., 2011).

Attitudes of Middle School Children toward Physical Education

Attitudes toward physical education of middle school children of different genders have been shown to become more negative with increasing ages and grades (Subramaniam & Silverman, 2007). To overcome this trend, physical education teachers should aim to encourage students to become more involved in activity selection. The attitudinal connection between the affective and cognitive domains has the potential to change student learning (Subramaniam & Silverman, 1999). The attitude toward a behavior is a function of the belief in the activity (Ajzen, 2005). The affective domain is associated with emotional feelings and the cognitive domain is based on knowledge of the subject matter. Children in the middle school years develop strong attitudes toward physical education and their feelings often influence their

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decisions about pursuing lifelong physical activity (Bernstein et al., 2011). Physical educators can make informed decisions about the selection of activities based on the knowledge of the student's attitudes to their lessons.

Purpose of the Study

The purpose of this investigation was to determine the attitudes of middle school students towards physical education in an urban environment. This study was based on the Theory of Planned Behavior (Azjen, 2012) that contends that a child's behavior results from the decision to engage in an activity. The attitude, either positive or negative, toward the activity may be influenced by the student's social environment. This study investigated the attitudes that boys and girls in an urban environment place on their physical education lessons. The results of this research will contribute to the understanding of the importance of implementing a physical education curriculum that is engaging and stimulating for the students in urban settings.

Methods

Participants

This study surveyed a convenience sample of 204 urban middle school students ranging in age from 9 to 16 years. The children selected for this survey had daily physical education lessons as part of their school curriculum and also participated in the New Jersey After-3 Program. The mean age of all children was 12.7 ± 1.2 years (boys, n = 103, 12.3 ± 1.2 years; girls, n = 101, 11.9 ± 1.2 years). The children included 36 African Americans, 117 Hispanics, 33 of mixed race, and 18 of other races including Caucasian and Asian/Pacific Islanders. Professors and students from the Kinesiology Department of William Paterson University directly conducted the survey in nine randomly selected urban schools participating in the New Jersey After-3 program.

Procedures

The middle school students completed a validated survey called the Attitude Toward Physical Education Activity ([ATPEA] Subramanian & Silverman, 2007) which consisted of a total of 20 items of which 10 questions were worded with positive expressions related to physical education and physical activity and 10 questions used expressions phrased in the negative.

Statistical Analysis

The surveys were collected and the data were analyzed using the Statistical Package for the Social Sciences (SPSS Statistics, IBM, Version 19.0, Chicago, IL, 2010). Descriptive statistics included means, standard deviations, and ranges for all participants. Statistical significance was set at alpha equal to or less than 0.05.

Results and Discussion

The children in the present study responded to a 20 item survey called Attitude Toward Physical Education Activity (Subramanian and Silverman, 2007) which was analyzed using two-step clustering. The cluster solutions were based on a two phase process through hierarchical and non-hierarchical stages. The final iterations depicted a high to low profile of the population based on proportion of responses. Boys indicated that they found physical education to be interesting and important as their top two values. Girls identified they found physical education to be exciting and important as their top two indicators.

The results of this study are valuable to physical education teachers who employ enriching pedagogical techniques that motivate students to be active participants in physical education. The middle school students in this urban setting expressed that the enthusiasm of the

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teacher was the most influential factor in getting children excited about physical education. The second most significant attitude toward physical education was the teacher's effectiveness in communicating to the students the importance of physical education. The third most important attitude was that a physical education teacher should incorporate fun into the learning in a class.

The students in this study also felt strongly that physical education is valuable and that physical activity is important. Children who feel an activity is valuable and important will continue to engage in that activity. Students do not want to waste time doing something that is not viewed as meaningful or worthwhile to them. Many of these students have limited free time and, therefore, when they have available time, they want to be involved in activities that are important and valuable to them.

Essentially, all of the variables in this study reflect the type of influence that physical education teachers have on their students. This research indicates that the urban middle school children who participated in this study recognized that the physical education teacher is the person responsible for creating exciting physical education lessons. Subramaniam and Silverman (2007) discuss that the establishment of a positive learning environment affects both student attitudes and their ability to learn. The researchers describe how a teacher can play a critical role in the development of positive opportunities and experiences for students and this in turn may improve their attitudes toward physical education.

Suggestions to improve physical education classes in urban settings include increasing the involvement of physical education teachers during classes and having them participate in the actual activities such as leading the warm up instead of assigning a student to do the activity while the teacher sits on the side. In this manner, the teacher becomes a role model for the students.

The students in this study appreciated that the subject of physical education was important to them. Cothran and Ennis (1999) pointed out the need for relevance and connection in urban physical education. They emphasize that students need to comprehend and support the value of the subject matter of physical education. If students felt that physical education was important, then they would be more likely to participate in the activity. The present study supports the fact that middle school students understand the importance of physical education in their lives.

In the present study, the children were from a locale where there are limitations in space and facilities for their physical activity based on their environment. Many parents do not want their children to play in unsupervised areas where there are concrete play areas, asphalt fields and chain link fences. Further research needs to be conducted regarding after-school play.

This study was important in identifying those factors that influence students' attitudes regarding physical education. Middle school students can appreciate that physical education is important and valuable to them. The results indicate that these students credited their physical education teacher for motivating them to enjoy and give value to their physical education classes. This demonstrates the importance of the teacher in this educational process. The teacher should be interesting, exciting, informative, and should utilize appropriate pedagogical techniques. The activities in the curriculum should be meaningful to the students. This is particularly important in middle schools in an urban setting with more limited resources and which serve students of diverse ethnic backgrounds.

Physical education is a lifelong journey and the fundamental attitudes toward healthful physical activity can be acquired by students prior to their teen years. Physical education teacher education (PETE) programs should stress that physical education teachers should utilize curricula, teaching techniques, and activities that are appropriate for the cultural and socio-economic educational setting. It is essential to create a program that is enjoyable, educational, and informative. Teachers should conduct their lessons to motivate and inspire students

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to enjoy physical activity and appreciate the value of healthy and stimulating physical activity throughout their lives.

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Best Practices in Teaching and Learning

Effective Way of Assessing Student Knowledge Using Concept Maps

PEER REVIEWED ARTICLE

Yun Soo Lee

What Is Concept Map Assessment?

Joseph Novak initially developed concept maps using cognitive psychology theory in his research program at Cornell in 1972 (Novak & Cañas, 2008). A concept map is a graphic organizer "to represent meaningful relationships between concepts in the form of propositions" (Novak & Gowin, 1984, p 15). Concept maps consist of concepts within circles and arrow lines to link one concept to another (i.e., one circle to another). Linking words or phrases exist on the arrow lines to explain the relationship between the two concepts. Propositions in concept maps consist of two or more concepts with linking words or phrases to make a meaningful statement (Novak & Cañas, 2008). The example of one student's concept map about the topic, 'assessment in physical education', is shown in Figure 1.

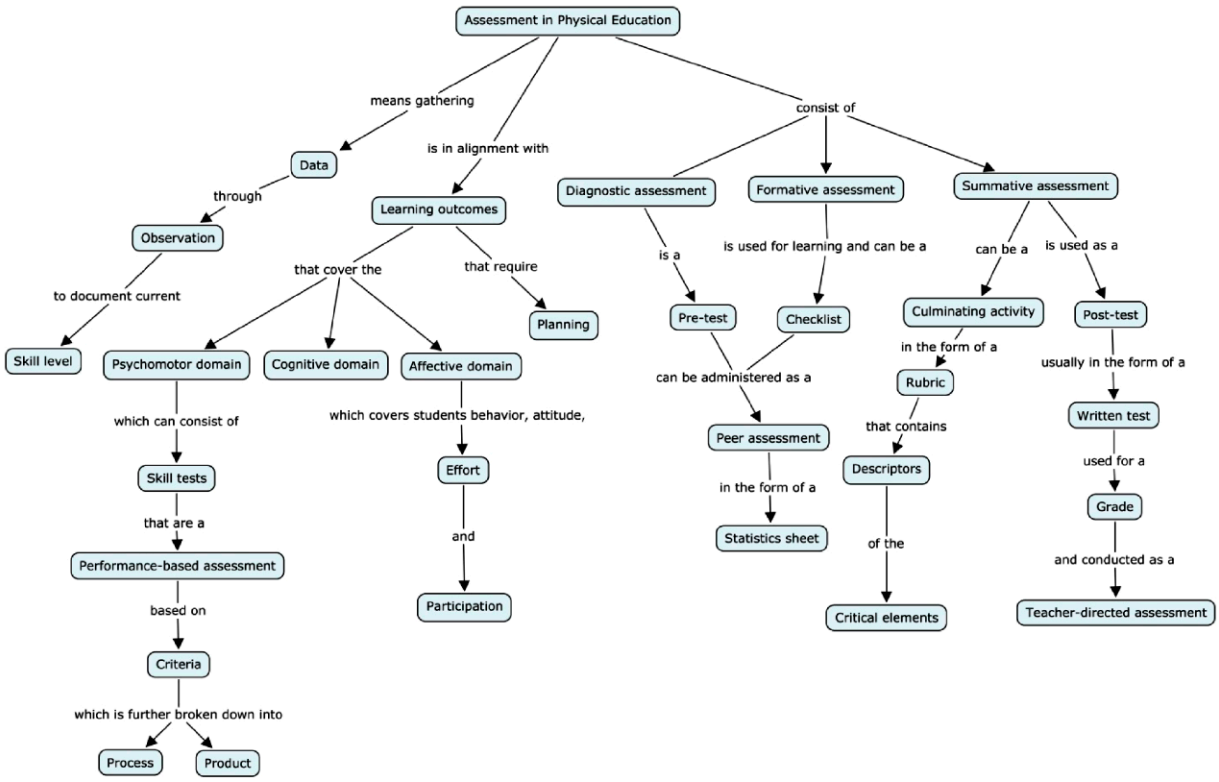

Figure 1. Example of one student's concept map.

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Concept map assessment can be an alternative way of assessing students' in-depth knowledge. Concept map assessment has been successfully applied in different subject areas such as biology education (Pearsall, Skipper, & Mintzes, 1997), engineering education (Besterfield-Sacre, Gerchak, Lyons, Shuman, & Wolfe, 2004), science education (McClure & Bell, 1990; McClure, Sonak, & Suen, 1999; Rice, Ryan, & Samson, 1998; Ruiz-Primo & Shavelson, 1996; Rye & Rubba, 2002), medical education (Kassab & Hussain, 2010; West, Park, Pomeroy, & Sandoval, 2002; West, Pomeroy, Park, Gerstenberger, & Sandoval, 2000), physics education (Austin & Shore, 1995), and physical education (Chen & Chen, 2012; Ennis, Mueller, & Zhu, 1991; Rink, French, Lee, Solomon, & Lynn, 1994). Therefore, concept map assessment can be an effective tool to be used in Kinesiology related subject areas (e.g., sport psychology, sport sociology, sport management, physical activity, health, and fitness, motor behavior, exercise and sport science, athletic training).

What Are the Benefits of Concept Map Assessment?

One of the benefits for using concept map assessment is its feasibility. For example, it needs little time not only for students to produce concept maps but for instructors to grade them. It is also simple and easy to train students about how to produce concept maps (McClure et al., 1999; Rice et al., 1998) using free online software programs. It is easier to edit what students draw in their concept maps using online software than using hand drawing in paper. With the combination with technology, students are more likely to learn, integrate, and organize the knowledge. There are many free software programs available online to create concept maps (e.g., IHMC Cmap tools, Inspiration, Smart Draw). The applications (Apps) for iPad or other electronic tablets are also available for free as well (e.g., iBrainstorm, Inspiration Lite, Mental, SimpleMind). The main screen of IHMC Cmap tools website is shown in Figure 2.

Both students and instructors can also obtain academic benefits by using concept map assessment in teaching and learning process. Instructors can measure students' in-depth knowledge about how to apply, synthesize, and evaluate important concepts in a specific course. In

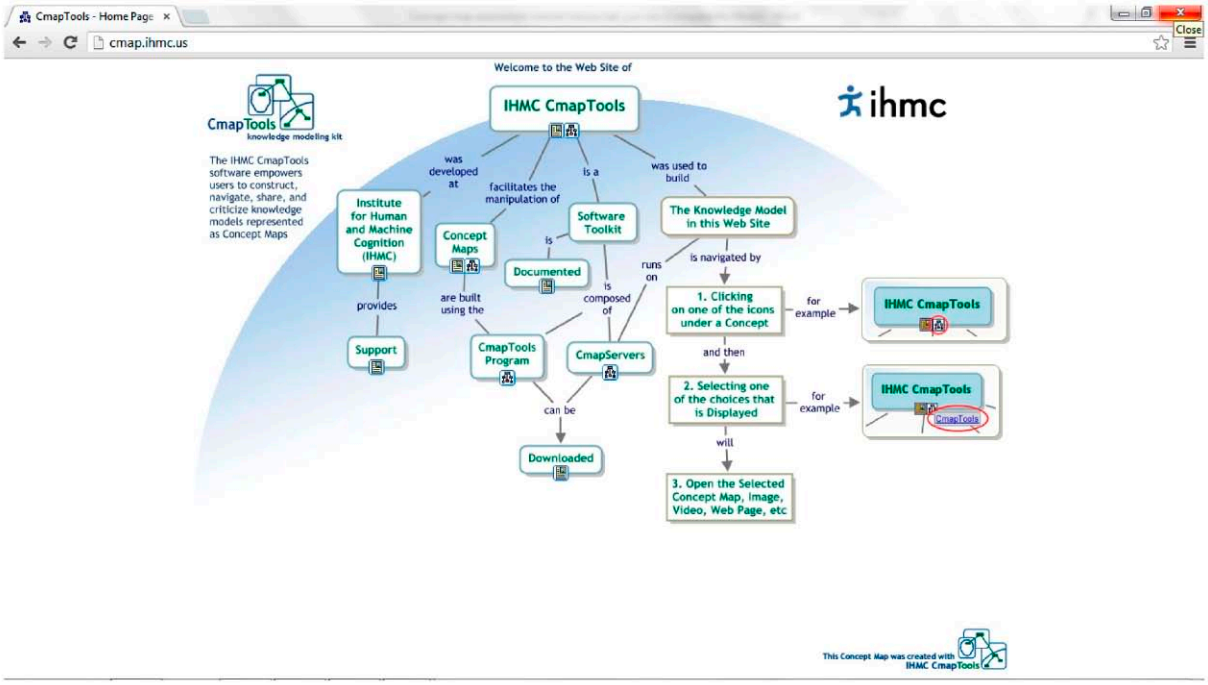

Figure 2. Main screen of IHMC Cmap tools website.

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other words, instructors can measure students' organization of knowledge and decision making skills using concept map assessment (West et al., 2000). Through concept mapping activity, students' existing knowledge can be expanded with new knowledge (Novak & Cañas, 2008). If instructors use concept map assessment in their courses, students can magnify what they have learned through pre- and post-concept map assessments. The instructors can also easily identify students' understanding and misunderstanding to track students' conceptual changes using concept map assessment.

How Can Concept Map Assessment Be Used By Instructors?

When instructors use concept map assessment, the first thing the instructors need to do is a concept map training. It is highly recommended to use a computer lab to conduct a concept map training so that students can easily access and practice online software programs using computers. Instructors should download online software ahead of time to each computer in the lab. However, instructors may need some helps from staffs in information technology division (or department) in their institution because most institutions will not allow instructors to download any software programs to their computers in the lab.

In a training session, instructors need to demonstrate how to produce concept maps using the software program. First of all, the instructors explain and show how to create a circle and how to write down a concept within the circle. Second, the instructors demonstrate how to create an arrow line from one circle to another. Thirds, the instructors teach how to write linking words or phrases on the arrow line. Last, the instructors describe how to move or delete the circles. When explaining these steps, the instructors asked students to brainstorm about what important concepts will be in a given topic as an example and what connections can be made between these concepts.

For example, instructors can use 'dogs' as an example to explain how to produce concept maps. Students may answer 'four legs', 'different colors', and 'different types' as important concepts about dogs. Then the instructors ask students to make connections among these concepts and to think about linking words by demonstrating it on the screen in the computer lab or in the classroom. A possible proposition is 'dogs HAVE four legs'. In this case, dogs and four legs are important concepts so that they are placed within each circle. The arrow line is going from the circle of dogs towards the circle of four legs, and the linking word on the arrow line is 'HAVE'. Another possible proposition is 'dogs have different colors'. Instructors need to demonstrate how to expand the concept using important key words about the topic. Students can learn how to produce concept maps through these instructors' demonstration.

After the concept map training, instructors need to decide whether they are going to provide specific key words to their students. First, instructors provide key words about the topic that are covered in their course and ask students to produce concept maps using only these key words. In this case, instructors want to provide a guideline using these key words that the instructors think important. Second, instructors do not provide any key words to their students. Instructors want students to select their own key words from the course and to explore the knowledge using their decision making and organizational skills.

Whether instructors provide key words or not, they need to provide 'focus question' to help students produce their concept maps (Lund & Veal, 2013). For example, if an instructor teaches 'assessment in physical education' course for teacher candidates in physical education teacher education program, the possible focus question can be "how is assessment used by physical education teachers?" (Lund & Veal, 2013, p. ix). Students are asked to produce concept maps about assessment in physical education using this focus question and some key words (e.g., performance-based assessment, formative assessment, rubric, and checklist) if the instructor has decided to provide the key words from the course materials.

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How Can Concept Maps Be Scored By Instructors?

It is very important for instructors to know how to score concept maps after they collected students' concept maps. The researchers developed different types of concept map scoring methods using the structure of the concept map and the relationships among concepts. Both structural scoring method (Novak & Gowin, 1984) and relational scoring method (McClure & Bell, 1990; McClure et al., 1999) have been widely used in concept map assessment. The structural scoring method has four different scoring points based on a valid link between concepts (i.e., concept links, cross-links, and hierarchical links, examples) based on the structure of concept maps. The relational scoring method has a four-point scales (i.e., 0–3 points) based on the level of valid relationships between concepts. Instructors can modify the scoring methods by weighing the points differently.

In addition, different scoring methods (e.g., structural scoring method, relational scoring method) could be selected by the instructors based on the topic of the course. Sometimes one scoring method could be better than the other scoring method in a particular topic. Instructors need to try different scoring methods to find out the best scoring method for their topic. The other way of scoring concept maps is to use 'master concept map' or 'rubric' that was developed by the expert panel (Chen & Chen, 2012). In this case, students' concept maps are compared with the master concept map or rubric for instructors to score concept maps.

What Are the Cautions of Concept Map Assessment?

One possible issue for using concept map assessment is the use of technology. Even though most students are familiar with the electronic devices including laptop, iPad, or electronic tablets in recent years, some of them might not have their own electronic devices. Instructors could ask students to use a computer lap in the library in their institution. However, it is possible that students could not be allowed to download software programs to university computer or they need to download it again and again whenever they use the online software. Instructors need to make possible accommodations for those who could not reach electronic devices easily.

The other issue is scoring methods in concept map assessment. The scoring methods are content specific. In other words, one scoring method can be fitted into one particular topic but not into the other topic. Reliability and validity of concept map scoring methods are another issue. The reliability and validity evidences of concept map scoring methods (i.e., structural scoring method and relational scoring method) have been established in physical education area (Lee, Jang, & Kang, 2012) but little is found about the reliability and validity of concept map assessment in other Kinesiology areas. The reliability and validity evidences of concept map assessment should be established before instructors use concept maps for their courses as a student assessment tool.

Conclusion

Concept map assessment is an alternative assessment that can be used in any courses of our profession. It can measure students' in-depth knowledge, decision making skills, and organizational skills using important concepts from a particular course using technology. From instructor's standpoint, it is simple to use and assess students' concept maps for student learning. It can be used both as a formative assessment and a summative assessment. Therefore, concept map assessment can contribute to teaching and learning process in our profession.

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Best Practices in Teaching and Learning

Millennial Teachers Blending Technologies for the Millennium Student

James J. Sweet, Laura Sweet and Frank J. Fedel

Introduction

Learners present the millennium educator with a diverse collection of goals, needs and levels of preparedness when attending course in higher education. Fortunately, the blending of new information and educational technologies has provided academia with a new model with which to engage these millennium students.

Current research in the area of blended technologies strengthens the idea of a new model and provides a strategic pathway for educators to explore when addressing the needs of the millennium students. Kennepohl et al. (2012) emphasized the success of Athabasca University's restructuring of their information technology infrastructure to address learner preparedness and student engagement in part by tapping into social networking phenomena. The authors reported that a study of graduate student satisfaction in 2010 rated the quality of teaching with the new initiative at 94%, with the quality of programing being reported at 97%. Further, the authors suggested that the new model made a significant difference in the pass rate for undergraduate students with an increase of 25%. The increase was directly attributed to the enhancement of technology to address student engagement. Similarly, Ball State University created an immersive learning model in 2007. The model included 12000 students who participated in one or more of the 750 projects produced (Gora, 2012). In conjunction with the success reported at the university level, a 2012 EDUCAUSE Center for Analysis and Research (ECAR) study investigated the perceived value of technology in education of undergraduate students from a stratified random sample taken from 184 US-based institutions. The ECAR data revealed that 70% of undergraduate students prefer instructors who include smart boards, lecture capture and digital course materials contained within a learning management system to those who retain the conventional lecture and demonstration alone. The study further noted that 75% of undergraduate students responded that blended technologies along with traditional lecture and demonstration enhanced their academic outcomes. In addition, 74% of students agreed that technology aided in their preparation for future academic requirements, whereas 63% of students concluded that the utilization of technology prepares them for their future professional endeavors.

The challenge facing some educators is that in order to satisfy millenium students, they may need to evolve their teaching philosophy and biases regarding "digital tools." These tools are not meant to replace the educator, they are designed to expand their reach and to facilitate engagement. Educators need to see these tools as a resource to help guide the main elements of theory into the critical thought process of the learner. To effectively accomplish this in curricula, educators need to consider and indeed manage how technology is deployed. One aspect of this is that it should be as transparent to the end user as practical, since students are not all equally technologically adept.

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One problem with advancing the teaching philosophy is the lack of literature that actually breaks down the blending of the technologies. Theory and data are imperative to success of technology but ultimately the educators need guidance on how to get started with the technology to ensure success. It is the purpose of this article to provide a framework of how to utilize and blend the aforementioned technology preferences of undergraduate students from the perspective of the authors who have successfully blended multiple educational technologies over the past 5 years.

Educators at all teaching level have investigated the need to adopt Universal Design for Learning (UDL) principles in order to reach students with different learning styles. One incidental benefit derived from blending technologies is that some of the pivotal UDL principles identified by Lapinski, Gravel & Rose (2012) as key to reaching these students are: understanding the diversity of the classroom and addressing student needs in a broad variety of ways. An analysis of one healthcare education program revealed that students develop through "hands-on" concrete sequential learning style (Coker, 2000).

Amato, Konin & Brader (2002) clarified the "Learning Over Time" model required by the Commission on Accreditation of Athletic Training Education (CAATE) as the required method to deliver competencies and clinical proficiency education. In this model, multiple methods of providing repetitive exposure to assess cognitive, psychomotor and affective domains are used.

Based on the acceptance of UDL and conclusions of some of the authors listed above, the authors of this article decided to identify and then pursue blending of technologies to transcend the traditional static classroom setting and create a dynamic, student-directed learning environment in which students could practice "learning over time."

A range of educational technologies have provided the authors of this article with the necessary tools to address the millennial students' goals, needs as well as addressing the learning styles presented to educators in higher education. The authors suggest the need for some educators to consider shifting their mindset from continuing to work in a traditional "teaching" environment to creating an enhanced, pedagogy-driven, technology-supported "learning" atmosphere. This paradigm change has been suggested partly in response to educators' awareness of the embrace of social media and smart technologies by the millennium student.

Educational Technologies – CMS Core

A course management system (CMS) is a software application that manages multiple aspects of classroom process. Educators benefit from a CMS's ability to serve as a central repository for course records, documentation, ancillary materials and other content. The CMS also functions as a networked environment that allows students to interact with the material, the educator and one another. It serves as an efficient venue for storing educational materials, as content developed by the educator and deemed appropriate is able to be brought forward from semester to semester effortlessly. This is critical to the ideology of "Learning over Time" as the educator can deliver past and present material within a class or between classes. As a result of easy, user-selectable access, the educator has the ability to provide relevant material and resources in multiple ways, to address a broad range of learning styles. The students also benefit from the CMS since they have access to each lesson's materials at any time – prior to, during, and after classroom activities. Finally, the CMS provides a convenient web-based resource through which educators can provide immediate feedback on testing, grading and homework assignments from any location with Internet access.

Associated Technologies (ISB, LC, CRS, GradeCam, SmartTech, IM)

An interactive smart board (ISB) can be used as an ancillary presentation surface for overhead projector display and provides additional capabilities similar to those of a whiteboard, only digitally. The educator can use it to create drawings, append projected images, and high-

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light projected material much more clearly than with dry-erase whiteboards (which can be afflicted with shadow-like residue from previous drawings). ISBs allow educators to display videos, animation or web based material integrated with lecture based presentation, then switch to drawing mode to provide enhanced instruction or input from students. This allows the educator to reach out to students with a variety of learning styles, and creates an environment that encourages interaction. In addition, the educator can blend theory with "real world" scenarios by appending news stories with written notes or images.

The ISB also has the ability to record all pre-arranged and improvised interactions for immediate replay, thus eliminating the need to re-draw sequential events. These recordings can be made available for later digital distribution. Specifically, they can be recalled during non-classroom practical learning sessions via podcast downloads using tablets such as the iPad, or other devices. The recording function frees students from excessive note-taking in class, allowing them to focus on materials and concepts as they are being presented. Accessing the recordings later allows them to see the material, apply the material, and evaluate the material thus following the "Learning Over Time" format.

Lecture capture (LC) systems provide a broad range of features, from simple video recordings to optional live streaming of lectures, presentations and demonstrations. The recordings avert the time constraints inherent in live classes while the live streaming feature eliminates geographic barriers. LC systems automatically synchronize and upload user-selected components of recordings (video camera, PowerPoint, etc.) to a local hard drive or web-based cloud storage for easy access. Some LC systems are flexible and allow integration of a variety of ancillary video inputs (via USB) for situations in which multiple frames of reference are valuable, such as close-up video images or ISB input. An additional feature is the ability to associate relevant materials such as PDF documents to recordings.

In some settings, LC systems are used to disseminate entire courses on-line. In addition, archived recordings can be made to be serially accessible on-demand across semesters through any web-browser capable platform. RSS (Rich Site Summary) feeds of recordings are also available, which allows students to download podcasts in either audio or video format for portability.

LC can be used to provide student interaction via five options:

- immediate – in-class, where Q&A are recorded (local)
- immediate – broadcasted streams allow remote viewer interaction via text input
- delayed – using threaded discussions as part of a CMS (student-student engagement)
- delayed – using notes feature integrated into system (notes can be added any time, amplifying course content and adding hyperlinks)
- delayed – during following class periods (viewed in class; students commenting live)

More importantly, with a LC system the students can identify specific time points in a lecture where they had difficulty understanding material and view those sections repeatedly. Lecture or topic-specific supplemental materials can be made available through attached files. Multiple concurrent video streams can be viewed in relation to each other via hyperlinks that appear at contextually-appropriate times during playback.

One example of a use-case of LC is student-generated recordings of student presentations. Once a student's initial recording is completed, peer feedback can be provided to the student via a threaded discussion attached directly to the recording, with time-stamps identifying contextually aligned presentation material. Students can evaluate their peer commentary and choose to re-record their presentation prior to submission for grading. This scenario provides for peer-peer interaction and allows students to become familiar with evaluating material they are responsible for learning.

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CRS – Classroom Response Systems

Classroom response systems ("clickers") provide a method of synchronous, non-verbal communication that allows students to engage during a classroom session without requiring loss of anonymity. In many instances, these small handheld devices are used solely as a way to document attendance. They are frequently used to test student knowledge as instructors display multiple-choice (or other) questions and students "respond" by pressing the appropriate keys on their clickers. Since students are not required to raise their hands or verbally respond, anonymity of responses is almost guaranteed – only the student who responded, and the instructor (if they wish to view results subsequently) know individual student responses. Aggregate responses in the form of bar graphs can be displayed upon cessation of polling students for answers, providing instructors with valuable information regarding the percentage of students responding correctly and allowing them to direct their instruction based on student preparedness.

Clickers are registered to individual students once at the beginning of a semester, and each time a new class session uses clickers, responses are documented and associated with the user who registered each clicker, so scores can be documented and integrated into the grading schema of the class if desired.

GradeCam

GradeCam is a brand name for a PC-based optical scanning program that is portable and can use a broad variety of video input sources, including laptop-integrated web cams. It is used to provide immediate feedback to students on quizzes that use a "bubble-sheet" format for responses. Students fill out the instructor-provided sheets, which can be created using any printer so proprietary scan-able sheets are not required. Students answer quiz questions by filling in the appropriate circles (A–E multiple-choice, typically) and entering a multiple-digit student ID number, then hold their answer sheet in front of the GradeCam-equipped computer's camera and obtain their exam score instantly. This provides students with immediate feedback after an exam in the form of their overall score and a list of the questions that were answered incorrectly.

Smart Tech

We coined the phrase Smart Tech to apply to a modular system of interconnected tablets (iPads) and large format HDTVs onto which activities on those tablets could be displayed. A small number of tablets are provided during class for small group exercises. Each tablet is either hard-wire connected to a large format HDTV located in close proximity to the tablet for direct display, is used remotely to capture video for later display, or is connected wirelessly via WiFi to the instructor's tablet. The flexibility inherent in such a diverse array of combined connections of the tablets and HDTVs allows multiple scenarios to be created.

One use case has small groups of students each working on a particular aspect of a series-based problem in which four steps are required for satisfactory completion of the exercise. Each group is required to provide a solution to each of the four sub-problems by first watching a video recorded segment (stored on the tablet) which sets up the problem, broadcast onto its associated HDTV for ease of viewing. They then provide responses to questions related to the sub-problem on the tablet. Upon successful completion, they move to the next sub-problem.

IM

Information Management (IM) is a database system developed to provide a searchable index of all resources available to students in a specific program. These resources include both virtual and physical items related to a program of study. Examples of virtual resources include

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video recordings, LC recordings, audio files, animations, digital images, .pdf files, digital journal articles and digital text resources. Physical resources include textbooks, journals, CDs, DVDs, physical models, materials and equipment. Categorization of items follows a multi-dimensional taxonomic model and allows an item to be indexed as both physical and virtual (as is the case with CDs and DVDs). The IM database stores information on the physical or virtual location of resource, its availability (whether or not it is checked-out), and an image of the resource if applicable (e.g., physical models of relevant objects).

Understanding the Use of Technologies in the Classroom

In order to effectively use blended technologies, a reflective exercise regarding teaching philosophies and potential educational technology bias should be undertaken. Perhaps the greatest obstacle confronting the majority of educators is transcending the teaching philosophies previously adopted, and considering potential ways that new educational technologies can achieve desired outcomes. Educators also need to be able to operate and understand the technologies they plan on implementing in order to deliver the content in a way that will benefit students. These are simply tools; no technology will ever be able to take the place of the educator's knowledge and commitment to disseminate the material at a level the students understand, but the educator needs to know how to use the tools properly. Keep in mind the fact that the initial setup will require an investment in time in order to create a successful outcome.

Blending the Technologies: More Isn't Always Better

The volume of information accessible today is greater than at any time in the past, and of course there will be even more available by the time you read this article. As we all know, quantity and quality are not synonymous – each brings its own challenges. Inadequate volume (quantity) was once a hurdle; now, as volume is no longer the constraint it once was, we have been forced to recognize that validity (quality) is even more important. By blending technologies we are able to disseminate a greater volume of information using a variety of methods, but as educators we have a responsibility to ensure that the type of content, the sequence of access, and more importantly the validity of materials presented to the students are appropriate. Along with the greater "power" that comes from blending technologies effectively comes more responsibility. It's not just about "more" (that is the easy part now); it is about "more effective."

Multiple Technology Integration Considerations

One of the main constraints we placed on the system was that it should be easy to implement at a basic level, allowing users to select only one or a large number of technologies as desired. The combination of technologies we ultimately selected provided extensibility so that simple functions related to each technology could be selected initially, and more enhanced functions could be explored as desired. At its most basic, each of the individual components of the system can be used by a technophobe with little or no training, while the expert user can take advantage of more sophisticated and unified functions. Further, an important consideration in terms of implementation is that we wanted to ensure that we followed UDL principles to make our information relevant to the greatest number of students possible.

The diagram on the following page provides a graphical reference to demonstrate how the authors interconnect the technologies to create a "smart platform."

Conclusion

The utilization of the aforementioned technologies alone can greatly enhance the delivery of content in the classroom, online or in a hybrid (mixed) environment. Successful blending

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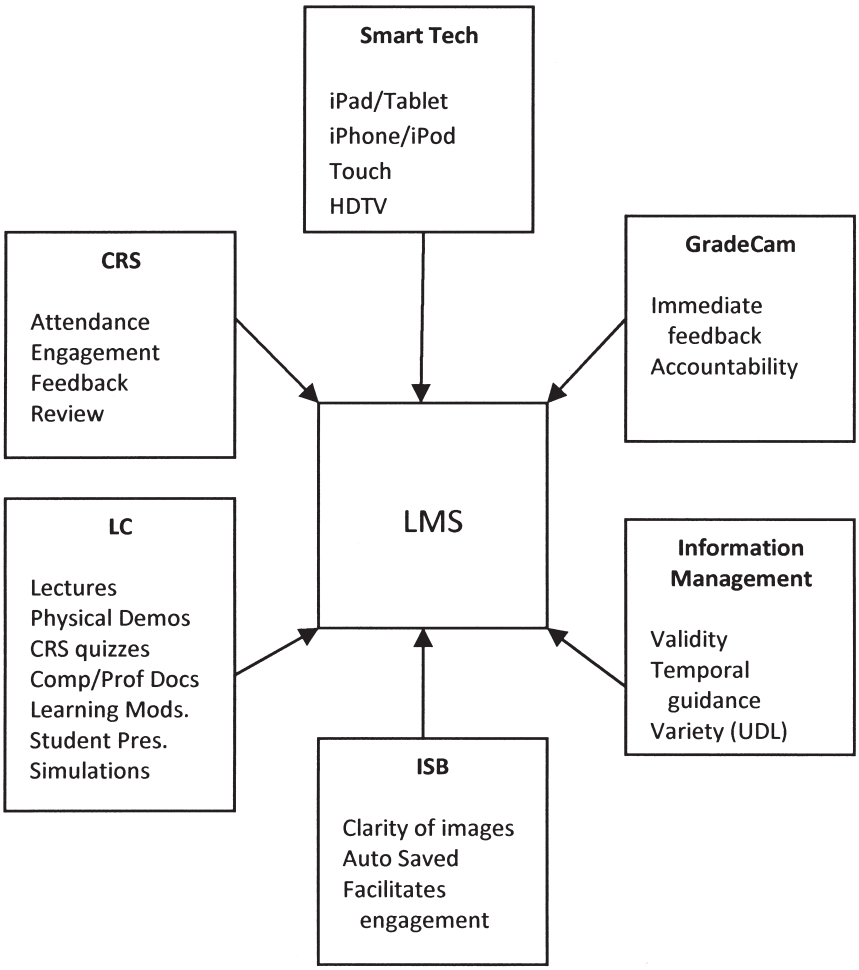

of these technologies provides the educator with an all-in-one environment that can address different learning styles as well as put some measure of control of exposure to materials into the hands of the students. Ultimately, this blending of technologies gives us the ability to reach out to – and attract – potential students who, due to work, family obligations or mobility issues, are unable to attain a higher level of education in the conventional way. It also gives us an opportunity to provide a broader spectrum of students with access to higher levels of knowledge acquisition, retention, and comprehension, and at the same time enhance our image as educators.

We could not agree more wholeheartedly with Humphrey's (2012) who stated, "While new technology developments are certainly changing how educational institutions operate, technology alone does not—or should not—'define' what we do."

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Research Digest

Top Journals Related to Kinesiology According to the *SCImago* Database

PEER REVIEWED ARTICLE

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Abstract: This study documented three bibliometric variables in journals classified in areas related to kinesiology by the SCImago *Journal and Country Rank* database. Journal rank, and *h* index, and uncitedness were retrieved from SCImago *Journal and Country Rank* for the "physical therapy, sport therapy, and rehabilitation" (n = 70) and the "orthopedics and sports medicine" (n = 146) subject categories for 2011. Data were combined, duplicate titles removed, and primarily medical/surgical journals excluded. Descriptive data and correlations were calculated for journals ranked in the top half of the (n = 60) distribution. Top ranked journals had considerable variation in these bibliometric values, but the range and mean values were qualitatively similar to other related academic disciplines. There were moderate associations (r^2 = 44 to 58%) between journal rank, h-index, and uncitedness in these kinesiology journals. Common bibliometric variables reported in SCImago and indexed in Scopus show relatively strong ratings of influence of journals seen as related to kinesiology. There is a need for additional research using other bibliometric variables and scholar ratings to validate these results, as well as to clarify of influence of journals in kinesiology.

Keywords: bibliometrics, citation, h-index, journal rank

Scholars have several sub-disciplinary and multi-disciplinary journals related to kinesiology in which to publish their research. A typical publication strategy is to seek out the journal with the highest prestige with a mission relevant to the topic of the research report. It is important for kinesiology faculty to know the prestige of journals they consider for submitting their research for review for publication. Unfortunately, there has been limited research on the prestige of kinesiology journals or their bibliometric properties.

The patterns of authorship and sampling (Knudson, 2011; 2012), as well as the perception of influential journals and articles biomechanics have been reported (Knudson, 2007; Knudson & Chow, 2008; Knudson & Ostarello, 2008, 2010). Social science research in sports over fifteen years has been reported by Gao (2013), while Tsigillis and coworkers (2010) reported seven year trends in the impact factor of "sports sciences" journals indexed by Thompson Reuters *Journal Citation Reports*. Recently, Knudson (2013) compared several bibliometric variables for the top 40 kinesiology-related journals across three databases. Top journals related to kinesiology had journal ranks, impact factors, and h-indexes similar to related disciplines, and there were weak to moderate correlations between these bibliometric variables. Numerous disciplines have used a variety of bibliometric variables and methods to identify core journals (e.g., DuBois & Reeb, 2000; Furr, 1995; Goodyear et al., 2009).

Given the limited data on kinesiology journals and the diversity of sub-disciplines in the field, it would be important for kinesiology faculty to know the most highly ranked journals

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Top Journals Related to Kinesiology, *continued*

Table 1. Top 60 Journals Related to Kinesiology Indexed in *SCImago*

Journal	SJR3	% Uncited	*h* index
Sports Med	2.15	12.2	89
Am J Sports Med	2.11	24.2	113
Int J Behav Nut Phys Act	2.00	14.7	36
Med Sci Sports Exerc	1.75	20.7	128
Phys Therapy	1.28	44.4	80
Br J Sports Med	1.22	37.1	70
J Orth Sport Phys Thera	1.20	38.5	57
Socio Sport J	1.15	44.0	23
Knee Sur Sport Trauma Arth	1.22	34.5	60
Gait & Posture	1.10	19.7	68
J Biomech	1.09	20.6	109
J Sport Ex Psych	1.06	22.6	47
J Sci Med Sport	1.06	29.9	38
Clin Biomech	0.98	25.5	69
J Athletic Train	0.98	30.7	46
J Strength Cond Res	0.95	29.5	57
J Phys Act Health	0.95	32.2	18
Int J Sports Physio Perform	0.92	48.9	13
J Sports Sci	0.91	30.5	61
J Electromyo Kines	0.89	24.3	53
Scan J Med Sci Sports	0.87	25.1	54
Int J Sports Med	0.85	32.7	58
J App Sport Psych	0.83	28.5	32
Psych Sport Exerc	0.81	19.3	30
Sport Psychologist	0.76	35.3	33
Clin J Sport Med	0.76	47.2	59
Clin Sports Med	0.74	42.8	45
Sport Ed Society	0.70	42.6	25
J Mot Behav	0.69	30.4	39
J Teach Phys Ed	0.68	47.1	25
Adapt Phys Act Quart	0.65	43.4	27
Res Quart Ex Sport	0.64	40.8	49
Eur J Phys Reh Med	0.59	27.2	22
J Physiotherapy	0.59	61.5	34
Phys Therapy Sport	0.58	48.4	19
Ped Exerc Sci	0.58	44.4	37
Am J Phys Med Rehabil	0.57	38.4	55
Hum Mov Sci	0.56	26.8	46
Cur Rev Mus Med	0.55	74.3	7
Physiotherapy	0.53	51.2	7
Physio Res Int	0.53	46.9	27
Motor Control	0.49	46.0	27
J Sports Sci & Med	0.47	47.8	21
Sports Biomech	0.46	53.4	13
J Sport Rehabil	0.45	51.4	23
Physio Thera & Pract	0.45	47.6	20
Eur J Sport Sci	0.44	49.0	11
J Appl Biomech	0.42	42.1	31
J Sports Med Phys Fit	0.38	45.1	37
Cur Sports Med Reports	0.37	56.7	19
Phys Ed Sport Pedagogy	0.36	—	3
Ann Phys Reh Med	0.33	57.6	17
Eur Phys Ed Rev	0.32	47.4	11
J Back Musculo Med	0.31	68.3	12
Sports Eng	0.28	49.5	4
Int J Sport Psych	0.28	57.5	29
Rev Brasil De Fisio	0.28	69.8	6
Int SportMed J	0.27	78.5	6
Sci & Sports	0.26	74.9	11
J Phys Thera Sci	0.22	75.1	7
Mean	0.76	41.6	37.9
95% CI	[0.73, 0.80]	[37.2, 46.0]	[31.8, 44.9]
SD	0.44	15.9	27.6

Note. Journals are ranked by *SCImago Journal Rank* over three years (SJR3) and % Uncited is the mean percentage of articles in that journal that were not cited in the Elsevier Scopus database over the last six to nine years, and *h* Index is the 10-year Hirsh index based on the Elsevier Scopus database. Missing data (—) are due to the journal not having at least 6 years of data for % Uncited.

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based on common bibliometric variables. Three databases have dominated the bibliometric and journal influence field: Thompson-Rueters' *Journal Citation Reports*, SCImago *Journal and Country Rank* using Elsevier's Scopus, and *Google Scholar Metrics* (Bakkalbasi, Bauer, Glover, & Wang, 2006; Delgado-Lopez-Cozar & Cabezas-Clavio, 2013). Knudson (2013) compared these databases and used the SCImago database to organize kinesiology-related journals because of it provided the best combination of the numbers of indexed journals, multiple categories related to kinesiology, and strong search and reporting tools. The present study extended the documentation of three bibliometric variables from the top sixty journals classified in areas related to kinesiology by the SCImago *Journal and Country Rank* database. These data are important to kinesiology scholars for selecting publication outlets and for establishing the overall perception of kinesiology journals in academe.

Method

The SCImago *Journal and Country Rank* was searched for journals indexed in the "physical therapy, sport therapy, and rehabilitation" (n = 70) and the "orthopedics and sports medicine" (n = 146) subject categories for 2011. SCImago uses Elsevier's Scopus database of journals (n = 19,708) and citations. The list was reduced for duplicate journals in both categories and for journals primarily focusing on medical/surgical topics (e.g., *Acta Orthopaedica, Arthroscopy, Journal of Bone and Joint Surgery*). This left 106 journals related to kinesiology. Other subject categories from similar disciplines were downloaded to provide qualitative comparisons.

Three bibliometric variables from SCImago served as dependent variables: the 3-year *SCImago Journal Rank* (SJR3), the *h* index over the last ten years (Delgado-Lopez-Cozar & Cabezas-Clavio, 2013), and the mean percentage of journals articles that were uncited in the last six to nine years (%uncited). The substantial percentage of papers in journals that are not cited, and the shape of the negative association between uncitedness and journal influence have been of considerable interest (Egghe, 2013; Hsu & Huang, 2012). Bibliometric data were ranked by SJR3, descriptive data and correlations were calculated with 95% confidence intervals (Hopkins, 2007) for the top half (n = 60) of the kinesiology journals.

Results

The top 60 journals related to kinesiology in SCImago showed considerable variation (CV between 32 and 73%) in the three bibliometric variables.

Top kinesiology journals had a mean ± SD SJR3 of 0.76 ± 0.4, an *h* index of 37.9 ± 27.6, and % Uncited papers over the last 10 years of 41.6 ± 15.9 percent. SJR3 was significantly correlated with *h* index ($r = 0.76$, 95% CI [0.63, 0.85]) and % Uncited ($r = –0.72$, 95% CI [–0.82, –0.57]). The *h* index was also inversely related to % Uncited ($r = –0.67$, 95% CI [–0.79, –0.50]).

Discussion

The top 60 journals related to kinesiology and indexed in SCImago had bibliometric measures that compared favorably to similar disciplinary areas. SJR3 ranged from 2.15 to 0.22, while all the "health professions" journals (n = 202) indexed by Scopus had SJR3 values from 2.52 to 0. The greatest variation (128 to 0) in journal influence/prestige across the top kinesiology journals was seen in the *h* index. The mean h-index of 38 means that 38 articles have also been cited in the database at least 38 times over the previous 10 years. Overall, the top half of kinesiology-related journals indexed and compiled by SCImago had means and ranges of bibliometic measures that compared favorably with similar academic disciplines. This was consistent with the analysis of the top 40 journals in kinesiology across three databases (Knudson, 2013).

The two measures of journal prestige (SJR5 and *h* index) were both moderately and positively correlated ($r = 0.76$). This was consistent with studies reporting moderate to strong asso-

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ciations (r = 0.61 to 0.93) between these bibliometric variables in several disciplines (Delgado-Lopez-Cozar & Cabezas-Clavio, 2013; Elkins, Maher, Herbert, Moseley, & Sherrington, 2010; Sicilia, Sanchez-Alonso, & Garcia-Barriocanal, 2011). While the shared variation of these two bibliometric measures is a common observation, some studies indicate that page rank based measures like the SJR5 may measure more about the prestige of a journal than the impact factor that appears to measure the popularity of research topics (Bollen, Rodriguez, & Van de Sompel, 2006). The *h* index is a measure that equally weighs quality and quantity of publications. While the *h* index tends to be more stable over time compared to other citation metrics, it is however influenced by size with a correlation with the overall number of papers published by a journal (Costas & Bordons, 2007).

Similar to other disciplines (Hamilton, 1991; van Dalen & Henkens, 2004), a good percentage of articles (41.6 ± 15.9%) in top kinesiology journals remain uncited over a long period of time. There was a moderate inverse association (r = –0.67 to –0.72) between % Uncited and both SJR5 and *h* index. Ten of the highly ranked journals tended to have fewer uncited papers (<30%), while lower ranked journals tended to have higher percentages (30 to 79%) of uncited papers. This linear negative association was similar to the association (r = –0.56) reported by Knudson (2013) for the top 40 rated kinesiology journals indexed by SCImago. Other disciplines have reported negative, but curvilinear associations between uncitedness and bibliometric measures of journal prestige (Egghe, 2013; Hsu & Huang, 2012).

There were several limitations of the present study of the prestige of kinesiology journals. First is the specific journals indexed and classified as aligned with kinesiology by SCImago and indexed in the Scopus database. There was also some subjectivity in the authors' classification and exclusion of medical/surgical journals. The three variables studied may not be representative of numerous (over two dozen) bibliometric variables that have been developed to evaluate the importance or influence of scholarly journals. Numerous studies have reported data and cogent arguments for not using bibliometric variables as surrogate measures for article quality (e.g., Brumback, 2012; Garfield, 2006; Selgen, 1997). Unfortunately, these problems have often been ignored and many biblometric variables have been used for evaluating the quality of research, lines of research, departments, and research units (Cameron, 2005; Garfield, 2006; Kurmis, 2003; Seglen, 1997).

Despite these limitations the following conclusions seem warranted. The top 60 kinesiology-related journals indexed by SCImago/Scopus had journal ranks, 10-year h-indexes, and rates of uncited reports that were qualitatively similar than other related scientific disciplines. Despite considerable variation in these variables, they were moderate associated (r^2 = 44 to 58%) with each other. There is a need for further research validating these results with scholar ratings and comparisons with other biblometric variables. Journal influence is multidimensional (Coleman, 2007; West & Rich, 2012), so a combination of expert ratings and bibliometric measures are needed to document the core journals and their influence in the field of kinesiology. Documenting the core journals and perception of their influence in the field by kinesiology scholars would also better define kinesiology to other scholars and bibliometric databases. This research would also assist junior faculty members in defending publication in the most relevant kinesiology journals and potentially help challenge the abuse of bibliometric measures for measuring scholarship. Surveys of scholars have reported no or weak correlations between the impact factor and scholar ratings of biomechanics journals (Knudson & Chow, 2008; Knudson & Ostarello, 2008, 2010).

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New Kinesiology Professionals

NAKHE's Professional Development Opportunities as Legacy Leadership: An Assessment

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The National Association for Kinesiology in Higher Education (NAKHE) has a long history of providing professional development opportunities for its members. To its credit NAKHE has also shown concern in creating opportunities for professionals of all backgrounds through the 2005 creation of the Social Justice and Cultural Diversity Committee (Hodge, 2010), and by intentionally including doctoral students into their programming. I attended NAKHE's 2013 Conference and Leader Development Workshop (LDW) with little knowledge of the organization's history and perhaps with a slightly different perspective as a doctoral student with nearly two decades of coaching and teaching experience, primarily at the secondary level.

My purpose here is to illuminate NAKHE's motives and methods for professional development opportunities through the underused but highly applicable legacy leadership theory. Legacy leadership is "a self-perpetuating model of leadership … that intentionally created other leaders, who in turn created other leaders" through an "earnest, heartfelt desire to encourage" (Whittington, Pitts, Kageler, & Goodwin, 2005, pp. 752–753). Both leadership and the reproduction of leaders are critically significant topics for NAKHE and any other organization interested in growth and long-term viability. Without effective leadership an organization will flounder, and without the reproduction of leaders an organization's lifespan is finite. First, I provide a brief introduction to both the challenges facing and the opportunities provided by academic professional organizations. Second, I offer a succinct comparative analysis of the more well-known theories of servant leadership, transformational leadership, and transactional leadership in relation to legacy leadership. Finally, I assess NAKHE's legacy leadership using salient examples of its motives and methods, as evidenced in its publications, professional development opportunities, and my personal experiences.

Professional Organizations

Professional organizations often have a very specialized, or arguably isolated, focus. Conversely, NAKHE has a long history of seeking to include multiple disciplines as "an association striving to provide leadership to higher education constituents within a broad spectrum of fields" (Letter, Sampson-Moore, Lyons, & Velez, 2010, p. 3). Yet, professional organizations like NAKHE are still facing many challenges. Technological advances such as Skype and web-based resources have opened a vast array of professional resources at low or no cost, causing some to not feel compelled to join professional organizations. Despite this, recent literature has reaffirmed career development as a key feature of professional organizations (Thomas, Inniss-Richter, Mata, & Cottrell, 2013), and as especially important for young professionals (Mata, Latham, & Ransome, 2010).

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Another major concern facing professional organizations is the financial strain that many are feeling as institutional and personal budget issues continue to inhibit membership and travel to conferences and events. This concern is explicitly seen in a 2011 remark from then-NAKPEHE President Beverly Mitchell, "organizational affiliation has become competitive even among those in our own discipline in pursuit of scarce dollars and other resources in hopes of increasing membership" (p. 1). It is NAKHE's focus on the professional development of its members that differentiates it from this crowd of competing professional organizations.

Servant, Transformational, Transactional & Legacy Leadership

Despite an abundant supply of leadership theories over the centuries, the academic world only relatively recently took up the topic in earnest, partly due the difficulty in defining it and measuring its results (Page & Wong, 2000). Bryman (2013) lamented that the lack of a common definition of leadership can lead discussions to "very easily become bogged down in a definitional quagmire, providing the reader with an unattractive introduction to a promising area" (p. 1). Despite this, Bryman (2013) pressed on by surmising that the common elements of leadership definitions "imply that leadership involves a social influence process in which a person steers members of the group towards a goal" (p. 1).

I am examining NAKHE's leadership as an organization, as opposed to an individual within in the organization, due to its long history and the regular changing of official leadership. I contend that viewing NAKHE through the lens of legacy leadership theory will elucidate their motives and methods. A key difference between legacy leadership and many other leadership theories is its emphasis on the reproduction of leaders. Whittington et al. (2005) explained that, "the legacy of the leader's influence is perpetuated through the follower's incorporation of legacy principles into their lives as they become leaders" (p. 749). Similarly, Wildavsky (1984) also argued that in legacy leadership teaching others to lead is the highest level of leadership. Legacy leadership incorporates much of, and extends upon, the more well-known leadership theories of servant leadership and transformational leadership. It is common for leadership theories to overlap in their concepts, characteristics, and terminology, making a brief comparative analysis appropriate (Barbuto & Wheeler, 2006; Northouse, 2012).

Servant leadership and transformational leadership, in particular, are two well-documented modern leadership theories that have previously been applied to NAKHE-related fields (Andrew, Kim, Stoll, & Todd, 2008; Burton & Peachey, 2013). Greenleaf first introduced the concept of servant leadership in 1970, though Valeri (2007) asserted that it is based on established philosophies dating back at least 2500 years. After examining the extensive literature base, Page and Wong (2000) defined a servant leader as someone "whose primary purpose for leading others is to serve others by investing in their development and well being for the benefit of accomplishing tasks and goals for the common good" (p. 2). Servant leadership begins with the attitude and motivation of the leader, but far from taking a servile attitude, "servant leaders motivate followers through investing in them and empowering them to do their best" (Page & Wong, 2000, p. 2). This echoes the earlier legacy leadership characteristic of having an "earnest, heartfelt desire to encourage" (Whittington, et al., 2005, p. 752).

Transformational leadership rose to prominence after Bass (1985) distilled and augmented Burns' (1978) work (Riaz, 2012). According to Avolio and Yammarino (2013), it "can help us understand how certain leaders foster performance beyond expected standards by developing an emotional attachment with followers and other leaders, which is tied to a common cause, which contributes to the 'greater good' or larger collective" (p. xxvii). Critics point out that due to its focus on organizational goals, in its worst form, transformational leaders can put the needs of the organization above acting ethically and ignore the needs of their followers (Burton & Peachy, 2013; Cardona, 2000). Legacy leadership, on the other hand, is focused on leader reproduction for the good of both the individual and the organization.

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Servant leadership and transformational leadership are often contrasted with transactional leadership. Transactional leadership, based on an unemotional exchange of rewards for positive behaviors and/or punishments for negative behaviors, is "focused on promoting self-interest and is thus limited in scope and impact" (Avolio & Yammarino, 2013, p. 7). This focus on self-interest stands in opposition to legacy, servant, and transformational leadership. Fisher (2013) suggests viewing the various leadership theories as a continuum that "begins with a laissez-faire (hands off) approach, then transactional styles, and finally transformational leadership…" (p. 1). However, I argue that the leadership continuum can be extended beyond transformational leadership to include legacy leadership.

Legacy leadership theory is now offered as an extension of the best of servant leadership and transformational leadership. Whittington et al. (2005) explained, "the legacy of the leader's influence is perpetuated through the follower's incorporation of legacy principles into their lives as they become leaders" (p. 749). This effect on followers is broadly but boldly described as simply "changed lives" (Whittington et al., 2005, p. 749). A legacy leader puts the needs of their follower's first, much like a servant leader. A legacy leader also seeks to motivate followers to accept organizational goals, much like a transformational leader. However, what primarily separates legacy leadership from the other two theories is an added level of intentionally seeking to reproduce new leaders. In fact, Whittington et al. (2005) claimed, "the emulation, or self-perpetuation, of legacy leaders is a key to the theory" (p. 767).

NAKHE as a Legacy Leader

Based on its published writings and my personal experiences, NAKHE's motives and methods for their professional development opportunities reveal it to be a legacy leader. Again, it should be understood that I am referring to NAKHE as a whole and not a particular leader within NAKHE. The term "motive" can be understood as a prompting, a goal, or an incentive for a behavior or "method." Whittington et al. (2005) identify four motives, five methods, and one measure of legacy leadership. From these they extrapolate three propositions of legacy leadership that I will relate to NAKHE.

A key prerequisite of a legacy leader is "pure motives" (Whittington et al., 2005, p. 762). While truly understanding another's motives may be impossible, NAKHE's motives appear pure in the sense of a sincere concern for the members. Two good examples are NAKHE's purpose and mission, which are stated as "to foster leadership in teaching, administration, policy, preparation for the professions and scholarship … facilitated through interdisciplinary ideas, concepts and initiatives related to the role of kinesiology and physical education, while valuing diverse social, cultural and personal perspectives" (Hodge, 2010, p. 10).

Whittington et al.'s (2005) first proposition of legacy leadership stated, "the motives of a legacy leader will influence the leader's choice of methods" (p. 762). Looking at this proposition in reverse order, NAKHE's methods of professional development include special events at the annual conference and the recent development of the LDW. Special events at the annual

Table 1. Motive, Methods, and Measures of Legacy Leadership (Whittington et al., 2005)

Motives	Methods	Measures
• Pure motive • Authentic/sincere • Follower-centered, not self-centered • Affectionate/emotional	• Worthy of imitation • Boldness amid opposition • Influence without exerting authority • Vulnerable/transparent • Active, not passive	• Changed lives

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conference included a new member welcome session and the Joanna Davenport Poster Presentation Prize for Doctoral Students. However, it is important to note that legacy leadership takes more than pure motives of the leader; the follower must perceive those motives as pure, authentic, and sincere. Whittington et al.'s (2005) second proposition of legacy leadership described it thusly, "the effects of a legacy leader's motives and methods on followers' changed lives will be mediated by the followers' perceptions of those motives and methods" (p. 762). I will now give examples of NAKHE's methods and motives, as well as my perceptions of them.

Upon returning to graduate school full-time in the fall of 2012, I searched extensively for opportunities to grow professionally. When I saw a call for the Joanna Davenport Poster Presentation Prize for Doctoral Students I was intrigued because I was not familiar with NAKHE, and I was excited that they offered this opportunity for doctoral students. I approached one of my mentors, Joy DeSensi, about NAKHE not knowing of her long association with the organization. She went to great lengths to praise the virtues of joining NAKHE and emphasized the professional development and networking opportunities available even to doctoral students. Her encouragement reflects former NAKPEHE President Metzler's (2010) call:

> It is incumbent upon every current NAKPEHE member to recruit new members in the most effective way possible, by personally spreading the word about the great contributions our association makes to our profession, and about the many valuable services and interdisciplinary interaction opportunities we provide to our members. (p. 3)

Furthermore, when I asked retired member Dick Swanson about NAKHE he was equally enthusiastic and encouraging even though he retired well before Metzler's comments and had nothing to gain from my joining or not. These examples all reflect qualities of legacy leadership in that the motives appear to be pure, but as importantly, the motives are perceived as such.

Upon arriving at the 2013 Conference, I attended a new member welcome hosted by Jimmy Ishee. At this informal gathering Ishee provided a history of the organization and laid out the vision for the future of NAKHE. I felt that his comments set the tone for a welcoming conference through their authenticity and sincerity, which are also characteristic of legacy leadership. I have been to other conferences where doctoral students are treated more as second-class citizens or living ATM's for the organization than as young professionals. These examples of warm behavior from NAKHE fall under legacy leadership's motives description of "follower-centered, not self-centered" (Whittington et al., 2005, p. 762).

Another method of NAKHE's professional development is the LDW. Its four-year history has been announced, promoted, and recounted thoroughly in this journal (Estes, 2010; Estes, 2011; Estes, 2012; Lund, Ishikawa, & Reece, 2012, & Metzler, 2010). The stated LDW mission is "to provide opportunities for faculty interested in assuming leader roles in kinesiology to acquire management and leadership skills" (Estes, 2012, p. 5) through an "accessible, affordable, and high quality professional leader development workshop" (Estes, 2011, p. 19). Much like doctoral students Lund, Ishikawa & Reece (2012), I had very little knowledge of the details of leadership issues facing faculty and administrators in higher education prior to the LDW and found the workshop to be a tremendous experience. I will not recount the specific details of the event, as they will be recorded elsewhere in this journal. The intentional development of the LDW as a low-cost, conveniently located event is all the more impressive as one could argue that NAKHE could easily target the already committed members who might attend to pay more.

Whittington et al.'s (2005) third proposition is that "the impact of legacy leadership will be measured by changes in followers' lives that come to reflect the motives and methods of their leaders" (p. 763). This proposition is slightly more difficult to address. However, I do expect that the LDW's practical training, including sessions on leader fit and emotional intelligence, will have a long-term impact on my professional development. In the short term, it has al-

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ready changed my development and teaching plans through an intentional inclusion of emotional intelligence into both. I also feel greater organizational commitment to NAKHE based on the way I perceive its motives, which has already been manifested in submission to the 2014 Collaborative Congress and by beginning the process of serving on a NAKHE committee. In addition, I have already begun to tell other doctoral students and young professionals about the virtues of the organization, much like I was told. So the cycle continues; NAKHE's perceived selfless motives and methods impacted me and now I seek to help others receive the same benefits.

Legacy leadership combines the best of servant leadership and transformational leadership by demonstrating a sincere care for followers while casting an ethical vision for the organization. The legacy leadership of NAKHE is clearly seen in its published motives and professional development methods, and can be measured by the motives and methods' impact on the lives of its members through an intentional reproduction of leaders, though in this assessment the reproduction it is limited to my personal experience.

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Political Window

Addressing the Politics of Epistemology in Higher Education

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This article is about politics – the politics we face in higher education with regard to the manner in which we conceptualize, manage, and disperse knowledge. Gone are the days when students traveled to the feet of scholars to learn. Gone are the days when scholars had academic freedom to study what they questioned for the sake of knowing. Gone are the days that a researcher's legitimacy was determined by the academy. It is a new age; an age that Barnett (2000) termed the age of supercomplexity. Scholars at the 2014 Collaborative Congress, hosted by NAKHE, will address issues such as these at the Congress roundtable discussions by congress delegates. They will discuss strategies that we can use to address the politics of epistemology in higher education and in our field.

Knowledge is for sale, there are multiple truths, and universities must compete with multiple markets, broker knowledge, manage delivery systems, and interpret complex research to the ordinary citizen to be relevant and competitive (Barnett, 2000, 2004, 2005; Block & Estes, 2011; Bloland, 2004, Welch, 2001). These are just some of the problems that universities are dealing with in what is called by Barnett (2000) and others as an age of "supercomplexity." Herrmann (2008) and Cubie (2008) suggest that during this time of supercomplexity universities and businesses are sharing parallel experiences. For example, university departments are expected to be profitable cost centers, and businesses are forced to build research and development departments to remain competitive (Milliken, 2004). In fact, clear boundaries between businesses, and universities, national economies, and governments are disappearing (Welch, 2001). Fields of study have split into sub-disciplines and sub-sub-disciplines, a process of fragmentation that in some cases has led to a condition where disciplines are no longer connected by common core principles and values (Block & Estes, 2011). Universities are finding it increasingly difficult to keep up with the proliferation of new technologies and knowledges. As a result of these competing forces, state and nationally sponsored evaluation measures have been put in place, accelerating a trend to adjust curricula to what the wider society deem important and relevant (Barnett, 2004, Block & Estes, 2011; Bloland, 2004; Delanty, 2001; Strohl, 2006; Tierney, 2001, Welch, 2001). Block & Estes (2011) assert with Barnett (2000), Bloland (2005), and Tierney (2001) that the modern university no longer exists:

[The postmodern university] is no longer the site for epistemological autonomy, it has been interpenetrated by the wider society, its faculty are no longer considered experts, its business practices are suspect, it competes with itself, and its generated knowledgevies for legitimacy and influence in an ever-expanding and exploding universe of knowledges. . . scholars who look outward and see the obstacles and opportunities that exist in the world of supercomplexity will be poised to grow and adapt; and scholars who refuse to look out past the false safety of the walls of the ivory tower are at risk for imploding with it (Block & Estes, 2011, p. 193).

The heavy hand of digital technology and resulting globalization has created a new political dynamic in higher education, what I argue is politics of epistemology. I will explore the politics of epistemology and resulting leadership challenges that face university administrators against the backdrop of Tierney's (2001) ideas related to the reformulation of the university. This article will also explore areas for ethically managing risk.

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The Politics of Epistemology

Epistemology is the branch of philosophy that is concerned with defining the nature of knowledge, searching for truth, and understanding the extent to which it is possible for something or someone to be known. University scholars debate the nature of knowledge and the extent to which truth, belief, and justification relates to that knowledge. Philosophers have developed guidelines for conducting these debates and for systematically verifying truth. Both *a priori* knowledge (knowledge independent from experience) and *a posteriori* knowledge (knowledge known by experience) are examined against classical philosophical methods using logic, as well as more recent theoretical foundations of quantitative and qualitative research methodologies that determine validity. Further, over the past twenty-five years or so, universities expanded the discourse regarding broadening the paradigms for research methodologies. Universities commonly offer quantitative and qualitative research courses, a change from the days when qualitative methodologies were given only a cursory glance in quantitative research courses. In addition to these methods, scholars in the social sciences are developing and accepting epistemological methods described as interpretive, narrative, performance, and artistic approaches to doing research (Heshusius & Ballard, 1996; Sparks, 2002).

Because these and other methods continue to proliferate, university scholars are finding it difficult to keep up with the ever-expanding knowledges that are produced across a global and digitized world. Pascale (2011) identified the problems that social scientists are facing: the lines between truth, authenticity and reality have collapsed, and traditionally passive citizens can now engage in local, interactional contexts as well as international, scholarly conversations from their very own homes.

While this interconnected dialog flourishes and grows, the scholarly academy is not keeping up. Pascale (2011) noted, "Yet social science research remains constrained by a philosophy of science that cannot begin to address the changing nature of social interaction or the porosity of mediated relationships" (p. 159). She goes on to suggest that the "specific capacities to decipher the complex layers of media intertextuality and consumer participation" are not considered legitimate research tools for the social scientist (p. 159). She recommends that the professorate acquire new skills to address knowledge production and knowledge dissemination. Boone, Flood and Webb (2005) summarize the political implications of not controlling knowledge production: "The power and legitimacy of professions is acquired in part from their status as organizations defined by their control over knowledge. If control over knowledge is lost, what happens to power …" (p.474)?

Tierney (2001) asserts that postmodernism has created an atmosphere at universities that has fragmented disciplines, and states that epistemology is "up for grabs" (p. 359). "Hierarchical social structures, singular notions of identity, linear lines of production, and the idea of the nation-state all have come under renewed questioning and reformulation" (p. 358). Tierney (2001) puts forward five attributes that define the atmosphere in postmodern universities, and that these attributes are important for administrators to consider while managing the risk that comes with uncertainty. The attributes include 1) knowledge and social construction, 2) power and persuasion, 3) identity and the intellectual, 4) acceleration and discontinuity, and 5) the death of the nation-state. These attributes will serve as a springboard for discussions regarding the nature and scope of leading universities in this complex age, for they affect university business practices, the nature of research and researchers, the manner in which research is conducted, and most importantly what academic leaders can do to address the risks that challenge what it means to be a university in these complex times.

Knowledge is Socially Constructed

One consequence of globalization is that knowledge is produced and consumed outside the university. Knowledge is no longer purely objective, neutral, nor additive; rather, "Knowledge

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production is a dynamic process that helps define and is defined by the worlds in which it is situated. And it is situated in multiple worlds – that of the discipline, the nation, the institution, to name but three prominent examples" (Tierney, 2001, p. 360). Bloland (2005) calls for universities to be flexible and create sanctuaries within the walls of the university where faculty can examine and argue differing frameworks of meaning and make sense of them. Tierney (2001) calls for individuals and collaborative groups to create knowledge based on cultural, social, and ideological positions. In so doing, universities are able to keep pace with hyper-change and seek meaning for the wider society (Bloland, 2005; Charles & Lipovetsky, 2006). Strohl (2006) asserts that universities can play a more substantive role in society and culture by being the arbiters of knowledge – scholars seeking truth while discussing and examining social and cultural issues in groups as equals.

Knowledge is Power

The second premise builds on the idea that knowledge creators are vying for power within the structures in which knowledge is produced and interpreted (Tierney, 2001). This premise conflicts with the traditions of neutrality and objectivity. Bloland (2005) explains that modern universities were given a certain degree of independence from the government and society based on the assumption that the enterprise of science was not necessarily influenced by politics, economics, or culture. Postmodern universities are no longer afforded autonomy because of the inseparable nature of science and technology (Bloland, 2005).

> Science and technology "are so closely tied to the purposes of transnational corporations and to governments seeking to cope with economic problems and military defense. . . [that they] have added considerably to the precariousness of the role of higher education in the postmodern period. . . thereby threatening the role of higher education as the central source for knowledge production. Science and technology can be, and are, produced elsewhere" (Bloland, 2005, p 129).

Barnett (2000) adds that, "…universities are fearful of losing their market share, both over the production of knowledge and over their educational function, as high level education is relocated to the private sector" (p. 413). There are several problems with this transition: universities take the position that all knowledge is universal in nature and universities do not have epistemological autonomy over it; secondly, universal knowledge should be fully open to the public and open to criticism; and thirdly, in principle, universities (built on the European mediaeval model) are open to all scholars.

Corporate universities, in contrast, threaten these principles. Corporate knowledge production has boundaries that relate directly to cash value; the products of research are kept private until transformed into a commodity; and thirdly, corporate universities are closed entities. The conflicting principles that exist between universities and corporate universities illustrate the politics of epistemology. We are now experiencing the effects of these politics: a transition from open to closed epistemologies (Barnett, 2000).

Our challenge is to define a role between the role of being disseminators of culture and providing knowledge we deem important with utilitarian roles for the marketplace. In so doing, we can gain power and influence culture and society. We must also become the arbiters of knowledge who articulate our identity as scholars while participating in the politics of epistemology – what Tierney (2001) describes as being experts at border crossing. Additionally, leaders in postmodern universities must deal with the infusion of technology into the manner in which we communicate, research, teach, and interact globally. We must also be competitive with for-profit universities, collaborate with corporations, market our programs, and provide equal access and participation through online platforms while maintaining the highest standards of academic integrity.

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Knowledge is Fluid

The third premise is based on the assumption that identity and self are fluid in this age. Tierney (2001) and Bloland (2005) explain that the modern idea of identity as fixed and determinate is no longer the case. It is difficult to identify the intellectual, the teacher, and the researcher from the interested citizen, the enthusiast, and the entrepreneur. Technology has made it possible for knowledge to become a commodity delivered outside the walls of the university by people who have not been vetted by the professoriate. Consequently, society has begun to mistrust the quality of *all* programs, both those in and outside the university. In particular, online programs have not earned popular legitimacy, at least as the need to provide quality assurance by outside agencies (Barnett, 2004).

Fragmentation of identity has raised some interesting questions that must be addressed by university leaders: *Are the professors teaching the courses actually professors? Are they properly credentialed? Are content of courses based on accepted, peer reviewed research? Are the institutions offering these programs legitimate? What is a legitimate institution? Are professors able to tell the identities of students online? Do the identities of students change during course delivery?*

Knowledge is Discontinuous

The overwhelming amount of knowledge available to everyone has changed the "way to think about what we think, how we think, and with whom we think." (Tierney, p. 364). The challenge for universities is to manage knowledge, think differently about the manner in which we conduct research, and how we might erase the lines between disciplinary knowledge domains. Barnett (2004) suggests that the wider society is interested in the purposes of the university. It is the responsibility of the university to construct an understandable argument regarding who we are and what we intend to do with the barrage of knowledge and delivery systems available to us. He explains that the faint-hearted despairingly turn away in the face of the so-called *fragility* of the university in these times.

> This is a counsel of despair and it is not the only option. A much more positive option lies, paradoxically, in the university seizing hold of the cluster of fragility as the dominant cluster for its self-understanding. If the world is characterised – as it is – by uncertainty, unpredictability, challengeability and contestation, then let these ideas become the watchwords of the university in the twenty-first century. If, in the process, other hitherto dominant concepts – such as knowledge, truth and learning – are put in the shadows, so be it (Barnett, 2004, p. 71).

Block & Estes (2011) encourage the professoriate to embrace the multiple frameworks of meaning that accelerate our thinking and drive our research agendas to answer important questions for the world. Barnett (2004) urges universities to add to uncertainty by creating imaginative, new frameworks of meaning. He suggests that universities continually evaluate uncertainty for a globally connected world. Further, he asserts that universities maintain the existential and operational capacities to maintain unity, durability and integrity during these times of acceleration and discontinuity.

Conclusion

The *death of the nation-state* is a complicated concept put forward by Tierney and others (Barnett, 2000, 2004; Welch, 2001) that serves as a helpful conclusion to this article. Tierney (2001) explains that globalization and digital technology have redefined what it means to be a university. The modernist view of the university defined the university as an organization of scholars that generated new knowledge. The modern university protected and promoted the interests of the state and nation that supported it. Modern scholars produced knowledge that was neutral and additive, and regarded autonomy to be a fundamental core of the academy. Scholars determined the framework of investigation, design, and evolution of the investiga-

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tion. Finally, modern research was focused on peers and the professional community rather than bureaucratic superiors in their institutions. This world no longer exists.

The rise of digital technology and globalization has blurred (if not erased) the lines between states and nations, local economies, and institutions to the extent that the whole world is accessible by anyone, anywhere, at any time (Bloland, 2005; Lyotard, 1997). The postmodern university must make sense of multiple and conflicting frameworks of meaning generated by multiple knowledge producers (Barnett, 2004; Mourad, 1997). The postmodern university is no longer the site for promoting the interests of the nation-state (Tierney, 2001). Postmodern research focuses on adding new frameworks of meaning and defining others (Barnett, 2004; Tierney, 2001). Postmodern faculty are encouraged to work in collaborative groups across disciplinary lines, and focus their research on social and cultural activities that promote social justice, and define the supercomplex world to their students and to a globalized world (Barnett, 2000, 2004, 2005; Bloland, 2005; Block & Estes, 2001; Pascale, 2011; Tierney, 2001). The death of the nation-state influences the university in profound and troubling ways. It is a politic of epistemology that bids us go beyond the walls of the university into a world with whom we interact. It is the world to whom we answer. It is the world that we must define.

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Student Submissions

Healthcare Careers in Physical Rehabilitation

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Four professional careers focused on physical rehabilitation and/or injury prevention that kinesiology majors often shown an interest in are Athletic Training, Chiropractic, Occupational Therapy, and Physical Therapy. These four professions are similar in that they help people prevent, treat, and rehabilitate injuries and movement dysfunctions. However, each is distinct from the other. In this paper we introduce students and advisors about each profession's scope of practice, education requirements, setting, specialties, earning potential, and job outlook.

Athletic Training

Doctors of chiropractic (DCs), occupational therapists (OTs), and physical therapists (PTs), may all treat injuries in the subacute phase, but rarely do they intervene during emergency situations. This largely differentiates athletic trainers (ATs) from DCs, OTs, and PTs. According to the National Athletic Trainers' Association, athletic training encompasses the "prevention, diagnosis, and intervention of emergency, acute, and chronic medical conditions involving impairment, functional limitations, and disabilities" (Athletic training, 2012). ATs are most visible in the sports realm, as they are often the first ones to assess and assist injured players.

As implied in the title, ATs work with athletes, but they also work just about anywhere that people are physically active. They collaborate with physicians to optimize activity and participation of patients, and aside from athletic teams, they are employed in hospitals, orthopedic clinics, sports medicine practices, and more. ATs are valuable employees in physician's offices because they help move patients through the appointment, evaluation, and treatment process. They add value to a practice with their skills in triage, taking patient histories, performing evaluations, instructing exercise prescriptions and rehabilitation (Hospital & clinical setting, 2012). ATs are also hired in the occupational health setting to prevent and reduce employee injury. In return, their services help companies improve productivity and reduce healthcare and insurance costs (Occupational health setting, 2012).

To become an AT, students must earn a bachelor's or master's degree from a college or university with an accredited athletic training program. Depending on the state, individuals must then become a certified athletic trainer (ATC) by passing the National Athletic Training Association's Board of Certification exam. The ATC credential is currently required to practice in 47 states. Athletic training education programs use a medical-based model to prepare students to provide comprehensive patient care in five domains of clinical practice: prevention; clinical evaluation and diagnosis; immediate and emergency care; treatment and rehabilitation; and organization and professional health and well-being. Clinical learning is a large component of the education (Athletic training education, 2012).

Job growth for ATs is expected to be much faster than average for all occupations (Athletic trainers job, 2012). Awareness is increasing for sports-related injuries in children, young

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adults, and even active elders. As injury prevention and protection methods advance, and with greater recognition of their service by insurance companies, demand for ATs is expected to increase.

Chiropractic

DCs are heath care professionals who also practice hands-on, drug-free patient care. Chiropractic care is most often used for neurological and musculoskeletal complaints. Commonly treated areas include the neck, back, and joints of the limbs. Like ATs, PTs, and OTs, DCs can provide therapeutic exercises and other therapeutic modalities (About chiropractic, 2012). They are formally trained to perform adjustments to the spine and joints of the limbs with the goal of restoring range of motion and function. DCs are also trained to provide patients with nutritional and lifestyle counseling. In contrast with the other professions, DCs can obtain certification to practice obstetrics (midwifery), and minor surgical procedures such as laceration repair or sebaceous cyst removal (Minor surgery certification, 2012).

To become a DC, you must first complete 3–4 years of undergraduate coursework, with an average GPA of 3.0 or higher (Education requirements, 2012). The primary focus of the coursework should be on pre-medical related sciences, such as inorganic and organic chemistry, biology, physics, psychology, and the corresponding labs. Once accepted into a chiropractic program, students spend 4–5 years in full time study, which typically includes a full year of clinical experience. DC students, on average, spend more hours in classroom and clinical education compared to medical and PT students.

In 2010, the top 10% of DCs earned more than $143,000, which is considerably higher than the top salaries paid ATs, OTs and PTs (Chiropractors pay, 2012). There is a wider range in earnings, though, compared to the other professions. The median salary in 2010 was $67,200, and the lowest 10% earned less than $32,270. A perk to chiropractic is the opportunity for entrepreneurship. Most DCs are owners or partners of a private practice, while a small number work in hospitals and physician's offices (Work environment, 2012). Success as a DC comes from the ability to establish a reputable practice, and to educate the community about chiropractic services. As stated by the American Chiropractic Association, *"financial success depends upon many factors – the individual characteristics of the practitioner, his [sic] ability to apply his [sic] knowledge, his [sic] personality, the location selected, and economic conditions"* (Advantages of chiropractic, 2012). The need for chiropractors in the coming years is projected to grow due to demand for alternative, drug-free healthcare, and the increased recognition of health insurance companies to cover the cost of chiropractic services (Chiropractors job outlook, 2012). Chiropractors are also becoming more widely accepted as evidence-based research and practice is growing in the profession (Future of chiropractic, 2012).

Occupational Therapy

Occupational therapy is another alternative healthcare service that incorporates a hands-on, drug-free approach. OTs help people of all ages and abilities to participate in necessary and desired activities of daily living. They focus on treating clients through the therapeutic use of everyday activities (About Occupational Therapy, 2012). Examples of this strategy include teaching a stroke survivor to write with the opposite hand, or improving fine motor control so a patient can once again tie her/his own shoelaces. Common interventions include helping children with disabilities become fully functional in the classroom, helping individuals return to work after an injury, and providing support for older adults experiencing cognitive or physical challenges. OTs evaluate each individual in order to determine her/his goals and potential. Each patient receives a customized intervention to improve her/his activities of daily living, and an outcomes evaluation to document progress. OTs may also perform comprehen-

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sive evaluations of the patient's home, workplace, school or other environments, and make recommendations for easier, healthier activities, suggest alterations or modifications to the environment, or point out safety concerns. They may educate and encourage support from the patient's family members or caregivers, and they always view the patient as an integral part of the therapy team. OTs work in many different settings including hospitals, schools, nursing facilities, outpatient clinics, home health, academia, community centers, and mental health institutions (Workforce trends in, 2010).

Becoming an OT requires a master's or doctoral degree, requiring about 2–3 years, respectively, of graduate studies (FAQs about OT, 2011). Prerequisites for both degrees generally include anatomy, physiology, psychology, writing, statistics, and humanities courses. Students pursuing a career in occupational therapy often complete an undergraduate degree in kinesiology, biology, psychology, sociology, liberal arts, or anthropology.

Physical Therapy

PTs are healthcare professionals who evaluate, diagnose, treat medical problems and other health-related conditions, and discharge patients (Role of a, 2012). They primarily focus on major physical functions rather than on specific activities of daily living. The evaluation process begins with taking the patient's history, and learning more about her/his lifestyle and goals. Physical body systems are then reviewed, and tests are performed to identify problem areas. PTs then determine if the patient is within their scope of practice (i.e., if the patient is an appropriate candidate for physical therapy). If not, the patient may be referred to another healthcare professional. After evaluation, the PT may treat the patient using modalities such as therapeutic exercise, manipulation, mobilization of joints and soft tissues, electrical stimulation, ultrasound, laser light therapy, heat therapy, cold therapy, massage, and more. PTs can also provide a prognosis, which is the projected time frame for rehabilitation, inclusive of a discharge plan. In 47 states, they can care for direct-access patients, which is to say that a physician's referral is not required (Direct access to, 2012).

PTs work in many settings. They may work in a privately owned outpatient clinic to serve many different individuals who walk in with pain or injury, or who have been referred by a physician (Physical therapist careers, 2011). PTs can work in an acute care setting, such as a hospital where they treat patients post surgery or after traumatic events. They may work in extended care facilities, treating elderly individuals, or those with chronic conditions. PTs also work in wellness/fitness centers, schools, industrial settings, and with high level athletes at performance centers. Other specialties include neurology, pediatrics, women's health, and cardiovascular and pulmonary.

Becoming a PT typically requires a Doctorate of Physical Therapy (DPT). The minimum requirement the United States is currently a master's degree, but all PT schools will offer a DPT by the year 2016, and all practicing PTs will be required to hold a DPT by 2020 (Vision 2020, 2012). Most DPT programs are 3 years long, and all require a Bachelor's degree prior to admission. Many students pursuing a DPT will complete an undergraduate degree in exercise science or another health-related field. Prerequisite courses generally include chemistry, anatomy, physiology, physics, biology, psychology, statistics, math, medical terminology, writing, and social sciences (Physical therapist admissions, 2012). Admission to DPT programs is highly competitive. Successful applicants typically have a college GPA of 3.5–4.0, and most programs require applicants to take the Graduate Record Exam. Students applying to DPT programs will first need to gain 45–100+ hours observing or working with physical therapists, preferably in multiple settings.

The national median salary for a PT is $78,270, with the top 10% earning over $110,000 (Physical therapists pay, 2010). PTs working in the home healthcare sector show the highest average salary of $89,150. The most common work setting for PTs is in an office with another

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Table 1. Professional Requirements for Physical Rehabilitation Careers

Career	Degree	Licensure*	National Licensing Organization
Athletic Trainer	Bachelors or Masters in Athletic Training	National	National Athletic Trainers' Association Board of Certification
Chiropractor	Doctor of Chiropractic	National and state-specific	National Board of Chiropractic Examiners
Occupational Therapist	Masters or Doctorate in Occupational Therapy	National	National Board for Certification of Occupational Therapy
Physical Therapist	Doctorate of Physical Therapy	National and state-specific	The Federation of State Boards of Physical Therapy

*For more information on licensure and continuing education, visit the leading organizations' websites.

Table 2. Earning Potential and Expected Job Growth in Healthcare Careers Focused on Physical Rehabilitation (Bureau of Labor Statistics, 2010)

	Median Annual Salary	Top 10% Annual Salary	Bottom 10% Annual Salary	Job Growth from 2010–2020
Athletic Trainer	$41,600	<$64,390	>$25,750	+30%
Chiropractor	$67,200	<$143,670	>$32,270	+28%
Occupational Therapist	$72,320	<$102,520	>$48,920	+33%
Physical Therapist	$76,310	<$107,920	>$53,620	+39%

healthcare professional, with the average salary being $78,120. The job outlook is promising, with an expected increase in demand of 39% between 2010 and 2020 (Physical therapists job, 2012). PTs like DCs have the opportunity for entrepreneurship, with over 21% of PTs being owners or partners of a physical therapy practice (Benefits of a, 2012).

Conclusion

Athletic training, occupational therapy, chiropractic, and physical therapy can all be rewarding professions for those looking to practice healthcare following a patient-centered, hands-on approach. Each occupation deals with at least some degree of prevention, evaluation, diagnosis, and treatment of injuries and conditions. Professional requirements for each profession are summarized in Table 1, and projected earning potential and job growth are summarized in Table 2.

To learn more about the roles, work settings, education and professional requirements for careers in AT, DC, OT or PT, visit the leading organizations' website:

- National Athletic Trainers' Association: http://www.nata.org
- American Chiropractic Association: http://www.acatoday.org/index.cfm
- American Occupational Therapy Association: http://www.aota.org
- American Physical Therapy Association: http://www.apta.org/

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Student Submissions

Traditional and Alternative Pathways to the Practice of Medicine in the United States

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Children are often told they can be anything they want to be when they grow up. One of the most prestigious and best paying occupations is that of a physician (or perhaps a "doctor" in a child's mind). However, few children actually ever become physicians as there are multiple challenges along the way such as the need to earn and maintain high grades in school, the long term commitment to devote many years to advanced study, and the financial expenses associated with obtaining a medical education, to name only a few.

In this paper we review traditional and alternative pathways to the practice of medicine in the United States. The traditional route is to go to medical school – either allopathic or osteopathic – and become a physician (i.e., Medical Doctor [M.D.] or Doctor of Osteopathic Medicine [D.O.]). While kinesiology graduates can prepare themselves to enter medical school, there are other alternatives and opportunities to practice medicine in the United States and people earning degrees in kinesiology are often well prepared to pursue such options. Two such careers, Physicians Assistant and Licensed Nurse Practitioner, will be introduced in this paper. Both work with physicians in an attempt to efficiently and effectively deliver the best possible health care to their patients.

The Traditional Route: Becoming an M.D. or D.O.

Undergraduate students aspiring to become physicians often major in biology, chemistry, or other pre-medicine curricula, which, with some planning and intentional effort, can include kinesiology. These majors cover the prerequisites required to apply for medical school and help prepare students to take the Medical College Admission Test (MCAT). The MCAT is a very important examination for medical school admissions and requires many hours of preparation (e.g., *The Princeton Review* [2012] offers a course with 105 hours of instruction). Some of the foundational knowledge necessary to appropriately prepare and do well on the MCAT comes from biochemistry, biology, chemistry, and physics courses. Medical school admission is a very competitive process. Practical experience in a medically-related field improve a person's chances, as does obtaining a license as an Emergency Medical Technician (EMT) or becoming a Certified Nurses Aid (CNA), neither of which takes an excessive amount of time.

Once admitted medical school is a rigorous process lasting 4 years. In the first year, students attend lectures and labs. The second year consists of courses on treatment and disease along with some clinical work. Students are also required to take the United States Medical Licensing Examination to see if they have the proficiencies necessary to continue with the program. Students start rotations (i.e., shadowing physicians through a series of specialties) their third year and work directly with patients in their fourth year.

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Medical school requires much more than just attending and passing classes. For one thing, medical school is very expensive. Tuition can range from $20,000 to $40,000 a year. The average medical student will incur over $150,000 in debt upon graduating. Medical school requires a major time commitment as well; the 4 years for medical school along with 3 to 6 additional years of medical residency depending upon one's specialty (e.g., anesthesiology, dermatology, emergency medicine, oncology, surgery). During their residency, medical school graduates practices medicine under the supervision of a licensed physician, work 50–80 hours per week, and earn $48,000–$55,000 per year (John Hopkins University, 2012). Without completing a residency, medical school graduates cannot practice medicine as a physician.

Once their residency is over and they have passed board examinations in their specialty area, M.D. and D.O. graduates can begin practicing medicine without supervision. This is accompanied by a substantial increase in salary. According to the Bureau of Labor (2012), the average salary of a family doctor is $189,402 and a general surgeon is $343,958. Physicians diagnose and treat patients with illnesses and injuries. Duties consist of taking a patient's medical history, ordering and reviewing test results, identifying abnormal findings, and collaborating with other medical personnel. The need for physicians is expected to increase 24% from 2010 to 2020. They can work in a range of environments with private practice, health care organizations, and hospitals being most common.

While being a physician can be rewarding, it can also be stressful. Many physicians suffer from burnout due to the long hours they work, being on call at any time of the day or night, and dealing with the death of patients. Also, malpractice insurance can be very expensive.

Students should be aware of all factors before choosing a medical career, particularly as new career opportunities are available and on the increase. Two such careers are Physician Assistants and Licensed Nurse Practitioners. These careers can be rewarding, like that of a physician, without as much of the responsibility or stress. Professionals in these careers perform some of the more routine tasks and procedures historically performed by physicians, thus providing more cost effective patient care.

Becoming a Physician Assistant

Physician Assistants (PA's) work in all areas of medicine, including emergency medicine, family and primary care medicine, psychiatry, and surgery. PA's are able to practice medicine with some degree of autonomy so long as they have a licensed physician supervisor. PA's can do physical examinations, order and interpret diagnostic tests, provide treatment, and prescribe certain classes of medicines, along with other duties.

Becoming a PA requires the completion of a graduate level education program. Just like pre-medicine students, pre-PA students can major in different areas of study, most of them being science orientated. Duke University, the top rated PA program in the country (*U.S. News*, 2012), requires five biological science courses including anatomy and microbiology. To fulfill the others, genetics, cell biology, and immunology can be taken. Coursework in chemistry and statistics is also required. After obtaining a bachelor's degree, prospective students must take the Graduate Record Examination (GRE) before applying to PA programs. Many PA programs also require at least 1,000 hours of direct patient care. Student clinical experience, student internships, and observations do not count towards this requirement. Acceptable experience can be service as an EMT or paramedic, CNA, phlebotomist, or clinical research assistant.

Once accepted into a PA program, students will complete a 2-year curriculum. Many programs are split into didactic and clinical sections (Glicken, 2002). The didactic portion is the academic phase where students spend time in the classrooms learning about human structure and function, pathologies, therapeutic principles, and so on. The clinical portion is hands on and it occurs in a medical setting. PA students work alongside medical students and residents.

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They gain experience in different settings such as gynecology, internal medicine, pediatrics, psychiatry, and surgery.

PAs can work in various areas of the medical field. The scope of practice is largely determined by the supervising physician. The extent of involvement with a patient depends on the complexity and severity of the patient's condition and the patient's need for more specialized care. PA's are cost efficient because they do routine procedures once done exclusively by physicians thus freeing the physician up to address more complicated cases and situations. Depending on the state, a physician can supervise up to four PA's.

The projected employment demand for PAs in 2020 will be 30% greater than today's levels. PA's salaries are dependent upon their work environment, whether it is primary care or surgery or some other specialty. The average salary for a PA is $86,410, with the range being $57,450 to $117,720 (Bureau of Labor Statistics, 2012).

Becoming a Licensed Nurse Practitioner

A nurse practitioner is a registered nurse (RN) with advanced academic and clinical experience that enables her or him to diagnose and manage most common and many chronic illnesses (Curren, 2007). Licensed Nurse Practitioners (LNP's) can work in many areas of the medical field including family medicine, oncology, pediatrics, trauma, and women's health. LNP's are involved in diagnosing, treating and managing acute and chronic illness and disease. They can also order tests, prescribe physical therapy and drugs, and perform or assist in minor surgeries under the supervision of a physician.

Becoming an LNP also requires a graduate level of education. Students wanting to become an LNP must first complete the education and clinical experience necessary to become a RN. Becoming an RN requires a degree in nursing. There are multiple pathways to becoming a RN. One is to earn a bachelor's degree in nursing (BSN). BSN programs are 4 years in length. Courses include science and liberal arts coursework, along with clinical experiences. Another way to become a RN is to earn an associate's degree in nursing (ADN). This can be done at a community college or nursing school. Some 4-year institutions also offer this degree. A third way is go to nursing school after obtaining a bachelor's degree in another discipline. This would involve attending an accelerated bachelor's program for non-nurses. Students with the correct prerequisites can complete such programs in as little as 1 year. The prerequisite courses consist of anatomy and physiology, nutrition, psychology, and so on. After completing an appropriate and approved degree program, a licensure examination must be taken and passed.

The next step is obtaining a Master's degree in nursing. This takes approximately 2–3 years. The student's specialty depends on what the program entails. The LNP curriculum follows nursing models of practice with an emphasis on health assessment, diagnosis, and treatment, as well as health care maintenance and disease prevention. After graduation from a Master's degree program, one must pass another licensure test to become an LNP.

Once licensed, the LNP is able to work where they choose, with the majority of LNP's work being done in hospital and primary care settings. Over the next 10–15 years, the projected employment needs for LNPs is expected to grow by 24%. The average salary of a LNP is $91,315 (Salary.com).

Conclusion

There are many similarities between the three professions reviewed; however, there are differences as well (Table 1). The two main differences are the amount of education required and the average salary each pays. These differences correlate with the level of responsibility associated with each profession. The main person responsible for the patient is the physician. They also oversee and supervise the work of PA's and LNP's. Many of the more routine and

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Table 1. Comparison of Traditional and Alternative Career Paths to the Practice of Medicine in the United States

	Physician	Physician's Assistant	Licensed Nurse Practitioner
Education requirements	Undergraduate (4 years), Medical School (4 years), Residency (3–6 years)	Undergraduate (4 years), PA program (2 years)	Nursing school (4 years), LNP program (2–3 years)
Tests Needed to Take and Pass	MCAT, United States Medical Licensing Examination	GRE, Physician Assistant National Certifying Examination	National Council Licensure Examination for Registered Nurses, Nurse Practitioner Certification Examination
Average Salary	Family doctor $189,402 Surgeon $343,958	$86,410	$91,315
Average Debt After Graduation	$150,000	$100,000	$65,000
General Duties	Take patient history, order tests for nurses and health care staff, diagnose and design a plan for treatment, can perform surgery	Work under a physician, review patient history, perform physical examinations, provide treatment, and prescribe medicine when needed	Working with a physician, take patient history, perform physical examinations, treat common medical conditions, prescribe limited medication
Employment Outlook	24% Increase	30% Increase	24% Increase

common duties and tasks, however, can be performed equally well by a physician, PA, or LPN. They also work in the same settings with the same overall healthcare goal – to provide the best possible health care to their patients.

Further information about each career choice can be obtained at:

- Physician – American Medical Association: www.ama-assn.org/
- Physician Assistant – American Academy of Physician Assistants: www.aapa.org/
- Nurse Practitioner – American Academy of Nurse Practitioners: www.aanp.org/

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Administration

Person-Environment Fit in the Academic Work Unit

PEER REVIEWED ARTICLE

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Introduction

As leaders in Kinesiology in higher education, it is vital to consider the culture and environments in which we work. In a time when administrators and faculty continue to be challenged to accomplish and produce more with strained resources and are faced with questions as to the relevancy of higher education, it is essential to consider the aspects of the workplace that directly contribute to work outcomes, job satisfaction, and faculty attrition. High levels of productivity occur and positive outcomes are evidenced when individual faculty members are content. The vital questions then become what elements of our work environments result in the exemplification of either high or low levels of productivity and how can we actively influence these elements? Other propelling questions postulate general attitudes at work, the collegiality or collaboration demonstrated among faculty, and identification of specific tasks and functions that are enjoyed most and those preferred to be forgotten.

At the root of these answers is a comparison and evaluation of how or if the attributes of a person align with the characteristics of the work (e.g., job tasks), the work environment, and the work group (e.g., departmental unit). This means of evaluation is referred to as Person-Environment Fit (PE fit). The notion of evaluating organizational behavior, intentionality, worker productivity, and worker adjustment is grounded in the early vocational psychology works of Plato (Dumont & Carson, 1995; Edwards, 2008) and Parsons (1909) that spans well over a century. These original works were later delineated into the need-press model (Murray, 1938, 1951), interaction theory (Lewin, 1935, 1951), theory of work adjustment (Dawis and Lofquist, 1984), attraction-selection-attrition (ASA) (Schneider, 1983, 1987), and theory of vocational behavior (Holland, 1973, 1997). There is a foundation for PE fit in the higher education literature but has thus far focused on its applicability to student retention and attrition with the university as a whole, as well as within particular academic majors. The purpose of this line of research is to promote strong leadership within Kinesiology academic units in relation to PE fit components, constructs, and outcomes. Leadership is not limited to those in administrative positions as it is the responsibility of all faculty members to be active participants in molding and shaping our work environments and academic units. Fit affects faculty attitudes, decisions, and behaviors.

Foundation of Fit Research

Parsons (1909) is considered the founder of vocational psychology (Edwards, 2008; Hartung & Blustein, 2002). He identified three factors that influence career decision making to include:

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> (1) a clear understanding of yourself, your aptitudes, abilities, interests, ambitions, resources, limitations, and their causes; (2) a knowledge of the requirements and conditions of success, advantages and disadvantages, compensation, opportunities, and prospects in different lines of work; (3) true reasoning on the relations of these two groups of facts (Parsons, 1909, p. 5)

The consequences of this relationship accord or discord respectively result in "enthusiasm, love of work, and high economic values – superior product, efficient service, and good pay" or "inefficiency, unenthusiastic and perhaps distasteful labor, and low pay" (Parsons, 1909, p. 3). Fit is essentially a "matching model" which purports the importance of evaluating the match between the person and specified components of the job and work environment (Kristof-Brown, 2000).

PE fit theory describes the comparison of attributes between you or your faculty in respect to the needs of the job and characteristics of that position, department, college, and university. This comparison (i.e., fit) should be thought of as a spectrum ranging between congruency (success/tenure) and non-congruency (failure/attrition). Congruency refers to the comparison between the perceived attributes of the individual and the perceived work environment. When these attributes are perceived to be closely related, a congruent level of fit is exhibited resulting in high levels of achievement, success, and tenure. The greater the perceived spectral distance between these attributes, the greater the likelihood for low levels of congruency or a non-congruent fit. As the individual moves down the spectrum toward lower levels of fit, incrementally career success is less likely to occur (Heilman, 1983). This fit has been empirically proven to directly yield positive or negative work-related outcomes (Heilman, 1983) and as noted by Kristoff-Brown, Zimmerman, and Johnson "there are considerable barriers to acting on experiences of fit or misfit at work, the consequences of withdrawing from work, performing poorly, or leaving the organization can be severe, making it likely that attitudes will be influenced by fit well before behaviors are changed" (2005, p. 317).

Types of Fit

As worker behavior and the concept of "congruency" were further defined, PE fit was charged to individually evaluate job satisfaction, job stress, vocational choice, recruitment and selection, and organizational culture rather than the work environment as a whole (Carless, 2005; Edwards, 2008; Feij, Van Der Velde, Taris, & Taris, 1999; Kennedy, 2006; Kristof-Brown, Jansen, & Colbert, 2002). The individual components of fit include: person-career (PC) fit, person-vocation (PV) fit, person-job (PJ) fit, person-organization (PO) fit, person-group (PG) fit, and person-supervisor (PS) fit (Bretz & Judge, 1994; Cha, Kim, & Kim, 2009; Cheng, Wang, Horng, & Huang, 2007; Kennedy, 2006; Kristof-Brown et al., 2005; Parasuraman, Greenhaus, & Linnehan, 2000; Thomas, Buboltz, & Winkelspecht, 2004). Although each of these components has uniquely identifiable antecedents and consequences, it is PO and PJ fit that are proven to most influence worker selection, hiring judgments, and levels of commitment (Kristof-Brown, 2000).

Person-organization (PO) fit describes needs-supplies congruence in regard to an organization's mission, values, goals, structures, processes, and culture (Carless, 2005; Kennedy, 2006; Lauver & Kristof-Brown, 2001). When evaluating PO fit, specifically, values congruence, personality congruence, interest congruence, human capital, and demographics should be considered with values congruence being the most robust indicator of PO fit (Cable & Judge, 1996; Edwards, 2008; Schneider, 1987). Consequences of PO fit include career intentions and attitudes (Carless, 2005).

Person-job (PJ) fit deals with demands-abilities congruence in regard to a faculty members' knowledge, skills, and abilities (KSA) in comparison to the required skill set of the job (Kennedy, 2006; Lauver & Kristof-Brown, 2001). Antecedents of PJ fit include KSA, work experiences, career development, internal work motivation, and the predicated job skill set with

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consequences being job and career satisfaction, intentions to quit the current job, and commitment to the current occupation (Cable & Judge, 1996; Edwards, 2008).

Discussion

Just as we are to evaluate level of fit, we are also to manage it. Organizational structures and management at times are at odds with faculty needs and interests (Bolman & Deal, 2008). The three organizational components that most influence the means by which faculty are selected and chosen for advancement include leadership, structure, and culture (Bolman & Deal, 2008). Leadership that embraces an adaptive and diverse culture results in organizations that are most high achieving (Frontiera, 2010). Faculty members respond to organizational environments and leaders with behaviors that range on the spectrum between commitment and resistance. Fit is a process that exists within organizational culture and leadership behaviors.

Administrators wishing to increase goal attainment are encouraged to be attentive to PE fit components and work to immerse faculty into the organizational culture (Kristof-Brown et al., 2005). It is here that we call not only to administrators in Kinesiology in higher education, but also to leaders in our field, regardless of title, to consider, evaluate, and influence the components of fit. We can assist in legitimizing our various areas of academic focus on our respective campuses and in society by generating higher levels of productivity. For reference, consider an academic department or faculty member who is perceived negatively or unproductive across campus. They are likely to be less supported, receive less funding, and not be considered for advancement, promotion, or merit. This opposes the faculty member who has good relationships within the department and across campus and is then considered first when opportunities arise. Departments will benefit from employing faculty that experience congruent levels of fit and will similarly suffer negative consequences when faculty experience low levels or non-congruent levels of fit. While administrators have a responsibility to foster fit, it is also the responsibility of the faculty member to actively work toward improving their own fit.

It is important to distinguish between the ideal levels of fit for one faculty member as compared to the ideal level of fit for a department or work group. The large assumption of the fit line of research is that the highest levels of congruent fit yield the highest levels of positive work outcomes. While that may be true it is necessary to recognize that faculty will realistically vary in their levels of fit in relation to the PO and PJ components of fit (e.g., values congruence, personality congruence, interest congruence, human capital, demographics, KSA, work experience, career development, motivation, and job skill set). Two outcomes of fit have been reported to include a homogenous group (highest degree of fit) and a heterogeneous group (varying levels of fit). While highest levels of fit may be desired on the individual level, administrators should also consider the negative consequences of a work group that are too similar resulting in an increased amount of comfort ability in the work environment and adverse influence on productivity, creativity, and accountability (Schneider 1987; Schneider et al., 1995; Schneider et al., 2000). Imagine the work group that gets along so well that the majority of the work day is spent visiting and catching up as opposed to focused work. So essentially, the simultaneous existence of fit and diversity will allow for the most realistic and productive work environment and group with shared benefits of positive communication, collegiality, commitment, adaptive capacity, organizational effectiveness, and accountability. These variances should be expected, encouraged, and managed with the mindset that diversity and fit should work together to generate the most positive outcomes as realistically possible. Organizational decision-makers should support diversity as a means to minimize "excessive" homogeneity as the balance between diversity and extreme fit increases levels of productivity and return on investment (Kristof-Brown et al., 2005; Schneider et al., 1995).

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Person-Environment Fit, *continued*

Practical strategies

The primary questions for faculty and administrators to consider include: Considering the antecedent and consequences of fit:

- What strategies can assist faculty to improve their own levels of fit?
- What strategies can assist you as a leader or administrator to influence work conditions for others?
- What strategies can assist throughout the search and interview process?

These questions were asked in conjunction with presentations at the 2013 National Association of Kinesiology in Higher Education (NAKHE) national conference and the 2013 NAKHE Leader Development Workshop. The results of these discussions identified a number of useful strategies that faculty and administrators can use to increase job satisfaction, interest congruence, human capital, KSA, work experience, career development, motivation, and commitment. Common themes evidenced included frustration with job factors that are out of their control, developing a point of acceptance with those factors, developing a values-based reward system, identifying congruent and fair department values, and the importance of mentorship.

Strategies to assist faculty in improving their own levels of fit primarily were concerned with job satisfaction, human capital, and motivation. These included better management of daily schedules (e.g., requiring students to make appointments for advisement), developing a personal strategic plan with clearly identifiable goals and objectives, recognizing the aspects of your job, work tasks, environment, and group you enjoy (as we have probably already recognized the aspects in which we are dissatisfied), keeping sight of the big picture (as opposed to being bogged down with day to day tasks), and recognizing that we each have the power to lead within our group, departments, and universities regardless of position, rank, or title.

Strategies to assist leaders and administrators in influencing the work conditions of others included recognizing when mentoring support and guidance is needed, identifying quality mentors inside and outside the department, developing an organizational process for mentorship, recognizing the differences between important and urgent tasks (to assist in time management), clear communication and clear expectations with regard to tenure and promotion, and strong support of faculty members.

Fit strategies during the hiring process included pre-employment screenings and evaluation during on-campus interviews. To initiate the pre-employment screening process, a statement should be included in the job announcement that describes the work culture and environment. Pre-employment screenings also include the utilization of an assessment or inventory. Inventory examples include StrengthsQuest, Myers Briggs Type Indicator, Emotional Intelligence tests, and Cattell's 16 Personality Factors Test to name a few.

On-campus interviews should provide and create opportunities for the faculty to describe the work culture and environment to candidates multiple times throughout the interview. Indications should be given as to the work ethic, collegiality, or stress that exists within the department. Additionally, opportunities should be provided to allow for faculty and candidates to interact in a variety of settings as these settings will influence the attitudes and behaviors that are exhibited. This variety allows us to observe characteristics and values that we might not have observed in a traditional setting.

We know, as faculty and as administrators, that there is not a perfectly congruent job, department, or university and that the process of congruency of fit is an ebb and flow. While we may be a congruent fit in certain characteristics, we are likely to exhibit varying levels of fit in other characteristics. The utilization and employment of fit concepts does not alleviate issues or surprises when selecting, hiring, leading, or managing, however, it does ensure a more complete evaluation of ourselves and those with which we work. Faculty members, as well as

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our own, needs, interests, and values change from year to year as personal needs and interests change and as we respond to changes within the university, college, or department. By evaluating the culture and fit that currently exists within our departments and by implementing these strategies, we will learn about our own leadership and management abilities. Increased awareness of administrator ability, in turn, allows all faculty and the department as a whole to experience increased levels of satisfaction, higher levels of productivity, and higher levels of goal attainment.

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NAKHE Announcements

Leadership Development Workshop

The fourth NAKHE Leader Development Workshop (LDW) was held once again at Georgia State University, hosted by GSU's Department of Kinesiology and Health. The 2013 LDW was the largest to date, with 27 participants from throughout the United States. The mission of the LDW is to provide emerging and senior kinesiology leaders with the opportunity to discuss leadership, leader development, tips and tricks in administration, and to experience the usual fare of NAKHE networking and collegiality. Among the participants were doctoral students, new professors interested in assuming leader roles, senior and retired kinesiology faculty, department chairs, and deans.

The format of the workshop is highly interactive, with three workshop topics on a common theme discussed over the day and a half of discussions. Each topic is introduced with a short presentation aligned with the workshop theme, and is followed by discussion among the participants with special attention to issues of leadership and administration. Interspersed with the sessions are opportunities for emerging leaders to discuss the topic with senior colleagues who have "been there and done that." Feedback form these emerging kinesiology leaders is that the informal interactions between sessions may be the most beneficial parts of the LDW, and all agree to date that the LDW is one of the most rewarding professional society meetings they have ever attended. ("Emerging leader" is defined as someone who is interested in moving in to a leader role in some capacity – anything from program coordinator to department chair to faculty senate president and all administrative positions in higher education.)

The 2013 LDW began with recent tales of leadership from NAKHE senior leaders. The "Las Vegas" rule applies to these sessions – what goes on in the LDW stays in the LDW (if this intrigues you, dear reader, then you should to attend the 2014 LDW at Georgia State University on July 10–11, 2014). Issues raised and shared at this year's LDW included knotty personnel issues such as dealing with difficult colleagues, supervisor, or direct report; funding shortfalls; fights over facilities; changes in university mission and how this is affecting specific programs; priorities in research, teaching, and service in kinesiology programs; and trends in higher education such as online learning, MOOCs, and recent legislative mandates. One particularly interesting theme was the common experience of drops in enrollment in physical education teacher education programs. Of the 20 or so institutions represented at the LDW, only two reported steady or increasing enrollments in teacher training. One high note was an announcement that Georgia State University initiated a doctoral program in physical education.

The first regular session of the LDW was run by Gwen Weatherford, assistant professor at Texas A&M Commerce, and this session focused on leader "fit" within an academic unit. "Fit" literature is often published in the fields of social psychology and occupational psychology, and is a common topic in human resource departments. This literature discusses how an individual fits into their work environment based on their various psychological and behavioral characteristics. Participants of the LDW were sent an instrument prior to the LDW that was used to assess their multiple conceptualizations of fit (e.g., organizational commitment; and knowledge, skills, and abilities). Responses were summarized and analyzed by Weatherford,

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and then distributed back to the attendees during this working session. The results were discussed as they pertain to productivity and organizational satisfaction outcomes. The session concluded with a discussion of how fit, especially with regards to hiring decisions, can influence the academic unit and one's fit within that unit.

This session segued into a discussion of the commonly used Myers Briggs personality inventory, and how this tool can be used to understand characteristics of one's leadership style. The Myers Briggs Type Indicator was developed in the 1940s, and reliable and valid assessments require an official MBTI® (Myers Briggs Type Indicator) assessment from a professional who has met the standards necessary to be "qualified" to administer the "test." (The Association for Psychological Type is the professional association for information on the MBTI, and information on it can be had at aptinternational.org). There are also informal assessments available on the web for those interested in understanding a bit about the MBTI, and one such source was distributed to attendees to facilitate discussion. Those familiar with the MBTI agreed that it provides good information for leaders in understanding how and why they think about leadership the way that they do.

The final session was run by Karen Greenockle, former chair at the University of Tennessee – Martin, on emotional intelligence or "EQ." Again, attendees were provided a short inventory to provide them information on EQ, and Greenockle described the characteristics of high EQ leaders and why it is believed that these leaders are more productive than their low EQ counterparts. (For more on Greenockle's perspective on EQ see her fine article in *Quest*, 62 (3), "The new face of leadership: Emotional intelligence.")

The workshop concluded with a review of the presentations and the nature of the workshop itself, or what the attendees described as the "after action review." Also, dates and location were set for the 2014 LDW: July 10–11, 2014. The location will once again be Georgia State University in Atlanta, Georgia. NAKHE invites all members to attend this workshop, which is free to all NAKHE members. We hope to see you at there in 2014 – for information on the LDW contact Steve Estes at steven.estes@mtsu.edu.

NAKHE Foundation Memorial Fund

This fund was started with a large gift to NAKHE through the will of Dean A. Pease. Donations to the NAKHE Foundation Memorial Fund can be forwarded to:

NAKHE c/o Carrie Sampson Moore
Department of Athletics, Physical Education, & Recreation
Massachusetts Institute of Technology
77 Massachusetts Ave
Cambridge, MA 02139
617.253.5004 (office)
clsmoore@mit.edu

Make checks payable to: NAKHE Foundation Memorial Fund.

(continued)

Funding for NAKHE Special Projects

One of the responsibilities of the Foundations Committee is to oversee the spending of all endowed funds. There is interest money available in NAKHE's endowed funds to be used for special projects to further the goals of NAKHE. These are also projects that would not fall under the operating budget of NAKHE. Requests for special projects should be submitted by July 1st or November 1st of each year to the Chair of the Foundations Committee (FC). The FC, if possible, will make their decisions via e-mail. So there should be a short turnaround in the decision-making process.

Project requests should include:

1. Person(s) submitting request, address, phone, e-mail
2. Title and description of project
3. Itemized cost of project
4. Timeline for completion of project
5. Proposed benefits to NAKHE

____ Request Advance ____ Request Reimbursement ____ Other

For 2013 requests, submit your proposal to:

Marilyn Buck
School of Physical Education, Sport and Exercise Science
Health and Physical Activity Building (HP) Room 360
Ball State University
Muncie, IN 47306
mbuck@bsu.edu

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Authors Sought

We're always looking for quality articles for the Leadership, Current Issues, Best Practice, Research, New Professionals, International Columns, Scholarly Publications, Public Affairs, Doctoral Student Submissions and Administration. Please consider submitting an article to one of these columns or encourage your colleagues to do so. Contact the appropriate Associate Editor or the Editor directly with your submission or any questions. Article wishing to be peer reviewed must make that request to the editor at the time of submission.

***Chronicle* Deadlines**
Deadlines for *The Chronicle of Kinesiology in Higher Education*:

Copy to Editor	Published
January 15	April
July 15	October

All material submitted to *CKHE* must be double spaced, and regular articles should not exceed 8 pages of text charts and references can be extra.

Questions and Submissions must be sent to the NEW E-MAIL ADDRESS

editor.chronicle@nakhe.org

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To Join NAKHE or Renew Your Membership

NAKHE membership entitles you to three issues of *Quest*, one of which features the *Academy Papers*, and two issues of the *Chronicle of Kinesiology in Higher Education* per year, and to member rates for the annual conference. Please complete this form and return it to the address listed. **Or apply online at www.nakhe.org**

What are your special interests?

Check no more than three.

Rank _____

❑ Adapted
❑ Administration
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❑ Anthropology of Play
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❑ Basic Instruction
❑ Biomechanics
❑ Coaching
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❑ Curriculum
❑ Dance
❑ History
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❑ Assistant professor
❑ Associate professor
❑ Full professor
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❑ 4 yr. college/university
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❑ Emeritus (*Chronicle* only) $15
❑ Graduate Students $30
❑ Concurrent AAKPE membership $30
❑ Sustaining Member $85
❑ Tax deductible contribution to NAKHE $_____

Mail checks, payable to NAKHE, and this form to:

NAKHE c/o Carrie Sampson Moore
Department of Athletics, Physical Education, & Recreation
Massachusetts Institute of Technology
77 Massachusetts Ave
Cambridge, MA 02139
617.253.5004 (office)
clsmoore@mit.edu

(Canadian and other foreign members must use a money order or check imprinted "U.S. Funds.")

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(continued)

Nominations for NAKHE

Nominations for Vice-President Elect and President Elect

This is a call for nominations for the positions of Vice-President Elect and President Elect. If you have an interest in serving as president or vice-president of NAKHE, or if you know of one of our members who has the skills to be an effective leader of our Association, please let the elections and nominations committee know about that.

Why, you might ask, would you want to nominate yourself for one of these positions, or if nominated would you want to serve? Two reasons immediately come to mind. The first is purely self-serving. Serving in a prominent leadership role in one of the most historic organizations in kinesiology and physical education puts you in an elite group of distinguished leaders in our field. Your membership among this elite group brings you recognition among the colleagues at your institution. If you are looking for a line in your vita that demonstrates that you are a leader in our field, this is your chance. Tenure and promotion decisions often include how you are recognized by your colleagues within your discipline across the nation. So if you are up for tenure, promotion, post-tenure review, or are looking to relocate, for purely selfish reasons, please consider running for one of these offices.

The second reason is far more altruistic. Our association needs good leadership. Yes, this will take additional time out of your busy schedule. And yes, you will probably have to come to the NAKHE meeting a day earlier than you usually come. But ours is an important, and again I'll say, historic organization. It has only existed this long because dedicated professionals have been willing to give of their time and effort to make it work. If you've been an active member of NAKHE but have never been a leader in NAKHE, now is the time. You owe it to our profession.

If you would consider running for one of these offices, or if you know someone who would make a good leader in NAKHE, please communicate that information to David Claxton, Chair of the Elections and Nominations committee of NAKHE at Claxton@wcu.edu.

Job Notice

Web Postings

Submit your job openings for posting at a NAKHE Webpage and for e-mailing to over 600 professionals in the field. The Website OPERA is updated weekly and receives nearly 600 hits per week. The annual registration fee for hiring departments is $150. For details, please visit http://www.nakhe.org/OPERA/Index.html

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