Assuming a Leadership Role: Exploring Situational Leadership Strategies for Supporting and Mentoring Graduate Student Teaching Assistants in Anatomy and Physiology

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Assuming a Leadership Role: Exploring Situational Leadership Strategies for Supporting and Mentoring Graduate Student Teaching Assistants in Anatomy and Physiology

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Abstract
Although literature posits the invaluable role of educators as both teachers and leaders in cultivating meaningful student learning experiences, many educators do not identify themselves as leaders (Barth, 2001). This paper explores leadership strategies for cultivating teacher-leader identity in Anatomy and Physiology educators. Due to large student enrollment numbers, faculty must often rely on student teaching assistants (TAs) to deliver the laboratory portion of their course. As teacher-leaders, faculty can assume leadership roles as both mentors and resource providers to course TAs and create a course culture of purposeful and deep learning. doi: 10.21692/haps.2017.052

Key Words: leadership, anatomy, physiology, mentorship, meaningful learning

Introduction
As a foundational course for most health professions, instructors of undergraduate human Anatomy and Physiology face the unique challenge of teaching an extensive amount of content to a large body of diverse students. Students enroll to meet general education science requirements, pre-requisite requirements for professional programs, and foundational major requirements in varied tracks including dance science, nursing, kinesiology, and the allied health sciences. With sizeable enrollment numbers, an additional challenge lies in that faculty must often rely on graduate student teaching assistants (TAs) to deliver the laboratory portion of their courses across a number of sections.

Although there is no universal agreement on the most effective method of Anatomy and Physiology instruction, there is a general consensus that students must be able to do more than accumulate facts. Educators well versed in modern learning theory have established the view that learning is more than memorization (Scott 2015) or acquiring knowledge (Mayer 2002). Learning is not a passive experience and requires *doing* as much as it requires *knowing* (Schank *et al.* 1999). Building a culture of active learning at all levels of instruction is critical to establishing meaningful learning experiences. These experiences are essential for students to be able to transfer and apply foundational Anatomy and Physiology principles to future upper division courses and professional programs. Culture can powerfully influence behavior and because of its near invisibility, culture changes only after actions have successfully been altered (Kotter 1996). Intentionally anchoring a student-centered teaching philosophy into the Anatomy and Physiology course culture is important because it can powerfully influence the teaching practices of TAs.

It is well established in the literature of modern learning theory that the shift from traditional instructionist methods to meaningful active-learning experiences is where the future of education is headed, but how does the community of Anatomy and Physiology educators diffuse this culture of meaningful active-learning to all levels of instruction and in particular graduate student TAs? Although novel teaching strategies is a familiar topic in Anatomy and Physiology education literature, there is much less discussion about how to successfully disseminate these ideas to course TAs. Teaching Assistants are responsible for teaching the laboratory portion of the course where meaningful interaction is essential to the experience. Faculty must intentionally consider how to develop a course culture that encourages TAs to adopt practices that align with student-centered teaching philosophies. This paper explores two different leadership strategies (situational approach and skills approach) for cultivating teacher-leader identity in Anatomy and physiology educators. As teacher-leaders, faculty can assume leadership roles as both mentors and resource providers to course TAs and create a course culture of purposeful and deep learning.

Teacher-Leader Identity
Although literature posits the invaluable role of educators as both teacher and leader in cultivating meaningful student learning experiences (ASCD 2014, Lieberman and Friedrich 2007), many educators do not identify themselves as leaders (Barth 2001). Although literature indicates that teachers as leaders mindset is increasingly garnering attention (ASCD

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2014), Barth argues that "something deep and powerful within school cultures seems to work against teacher leadership" (p. 444) and that teacher-leaders rarely comprise of more than a quarter of faculty. It is important for Anatomy and Physiology faculty to recognize their leadership mindset and intentionally explore leadership techniques to successfully assume leadership roles as mentors and resource providers to their course TAs. This mindset requires faculty to "'shift their paradigm" and to break with and replace their past ways of thinking and knowing with a totally new understanding of their role and its purpose (Bull and Gilbert 2012 p. 6). A single Anatomy and Physiology large lecture class can have five or more laboratory sections attached to it and it is not uncommon for each section to be taught by a different TA.

Situational Approach to Leadership

With a group of TAs to provide support and mentorship to, it is important that faculty are adaptable in their leadership style. The situational approach to leadership (Hersey and Blanchard 1969, Blanchard *et al.* 2013) takes the view that to be an effective leader, one must adapt their leadership style to meet the abilities and needs of their followers and characterizes leadership as having a *directive* and a *supportive* component and that each must be applied to a certain degree depending on the situation. Northouse (2016) writes:

"To determine what is needed in a particular situation, a leader must evaluate her or his followers and assess how competent and committed they are to perform a given goal. Based on the assumption that followers' skills and motivation vary which they are directive or supportive to meet the changing needs of followers" (p.93).

Northouse (2016) defines *directive behaviors* as behaviors that "help group members accomplish goals by giving directions, establishing goals and methods of evaluation, setting timelines, defining roles, and showing how the goals are to be achieved" (p.94) and defines *supportive behaviors* as behaviors that "help group members feel comfortable about themselves, coworkers, and the situation" (p.94).

In applying this approach to Anatomy and Physiology faculty and their mentorship of course TAs, faculty must match their level of direction and support to the level of competence and commitment specific to each of their TA's. Northouse (2016) summarizes how the SLII® model organizes the degree of follower competence and commitment across a continuum with four development level categories: D1 (low competence; high commitment), D2 (some competence; low commitment), D3 (moderate to high competence; variable commitment), and D4 (high competence; high commitment). For Anatomy and Physiology faculty to be effective in their leadership roles as mentors and resource providers, they must recognize where each of their TAs fall along this developmental continuum and assign a specific leadership style to meet those needs. Leadership styles are organized in a similar manner to developmental level. Northouse (2016) summarizes how the SLII® model organizes leadership styles into four categories of directive and supportive leadership behavior: S1 (*directing style*: high directive; low supportive), S2 (*coaching approach*: high directive; high supportive), S3 (*supporting approach*: low directive; high supportive), and S4 (*delegating approach*: low directive; low supportive); the appropriate leadership style number corresponds to the determined development level number.

Situational Approach to Leadership: Application

To successfully assume their leadership role as a mentor and resource provider to course TAs, faculty must ask themselves the following questions: What teaching practices are my TAs being asked to adopt? What type of course culture do I want to cultivate? Do my TAs have the experience and skills necessary to successfully facilitate active-learning experiences? Where does teaching fall among my TAs' list of priorities as a graduate student? Do they have the motivation and desire to make learning in their laboratories an authentic and meaningful learning experience? Answering these questions will help faculty identify the developmental level of their TAs and thus prescribe a leadership style approach.

Situational Approach to Leadership: Case Studies

The following two case studies are examples of developmental level identification and the appropriate prescription of leadership style on the D1-S1 and D4-S4 ends of the SLII® model's continuum:

Case Study 1

One of your TAs, Dru, is in his first semester of his first year as a graduate student in the biology department. His bachelor's degree is in microbiology and as a graduate student he is working in a research laboratory that works primarily with drosophila. He has no significant teaching experience apart from some microbiology tutoring that he completed an undergraduate student. Dru is your most inexperienced TA, but he is also the most enthusiastic. He constantly asks for feedback regarding instructional technique and often comes to your lectures to observe your teaching methods.

According to the SLII® model, Dru's lack of direct Anatomy and Physiology teaching experience combined with his positive attitude and openness to develop his teaching skills classifies him overall as D1 on the development level continuum. In accordance with the SLII® model, his faculty mentor would adopt the *directing* leadership style (S1) and spend the majority of their time helping Dru cultivate his active-teaching skills and discussing the Anatomy and Physiology laboratory content. Northouse (2016) asserts that this style of leadership "gives instructions about what and how goals are to be achieved by the followers and then supervises them carefully" (p.94).

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Case Study 2

One of your TAs, Christina, is in her third year as a graduate student in the biology department and works in the cadaver prosection lab on campus. As an undergraduate, she majored in biology and served as an Anatomy and Physiology laboratory peer mentor and Anatomy and Physiology supplemental instruction leader. She already has one Master's degree in anatomical illustration and she spent two years as a TA for general Anatomy and Physiology courses during her previous graduate program. Gross Anatomy and Physiology is her passion and she is both dedicated and enthusiastic about the goal of fostering meaningful active-learning experiences in the Anatomy and Physiology laboratory classroom.

According to the SLII® model, Christina's high degree of experience and strong sense of commitment to teaching Anatomy and Physiology classifies her overall as D4 on the development level continuum. In accordance with the SLII® model, her faculty mentor would adopt the *delegating* leadership style (S4) and spend less time intervening, and instead let Christina take responsibility for her laboratory section. Northouse (2016) states that this style of leadership "offers less goal input and social support, facilitating followers' confidence and motivation in reference to the goal" (p.95).

The functional and easily applied SLII® model is especially practical due to its prescriptive value that supplies leaders with easily understandable guidelines to effectively adapt their leadership styles to a variety of situations (Northouse, 2016). The complete SLII® model can be found at: https://www.kenblanchard.com

Skills Approach to Leadership: 3-Skill Approach

Robert Katz (1955) addressed leadership as a set of developable *skills* rather than definitive *traits*, suggesting that leadership skills and abilities can be acquired and that leaders can be trained to develop them (versus traits that are innate biological characteristics). Katz (1955) identified three basic administrative skills that are essential to effective leadership. Northouse (2016) defines each skill:

1. **Technical Skill** – Knowledge about and proficiency in a specific type of work or activity. It includes competencies in a specialized area, analytical ability, and the ability to use appropriate tools and techniques (p.44).
2. **Human Skill** – Abilities that help a leader to work effectively with followers, peers, and superiors to accomplish the organization's goals (p.45).
3. **Conceptual Skill** – The ability to work with ideas and concepts. Conceptual skills are central to creating a vision (p.45).

3-Skill Approach Application and Examples

Katz (1955) concluded that all three of these skills are important to successful leadership, but some skills are more important depending on the different levels of management (top, middle, and supervisory) of the individual. Faculty must report to department administrators on one end and manage both graduate TAs and undergraduate students on the other end; thus, faculty can be considered a middle level management category. According to Katz (1955) this middle level of management is the only level that puts an equally important emphasis on all three of the basic skills (technical, human, and conceptual). Thus, it would be beneficial to approach leadership development in a manner that encourages faculty to reflect on their relationship to of all three of these leadership skills in the context of the their leadership role as a mentor and support provider to their course TAs.

For example, Anatomy and Physiology faculty completing this exercise might consider the application of Katz's three leadership skills in the following way:

1. **Technical Skill** – Assess my own knowledge of learning theory, Anatomy and Physiology subject matter content, laboratory procedures, and clinical application; reflect on my own ability to effectively engage in meaningful and active-teaching methods.
2. **Human Skill** – Acknowledge my own perspectives in regards to teaching and learning and, at the same time, be aware of the perspectives of my TAs.
3. **Conceptual Skill** – Consider my ability to articulate my vision (of creating a course culture that embraces meaningful active-learning experiences) to my TAs.

Skills Approach to Leadership: Skills-Model

According to Northouse (2016) Katz's work in the 1950s set the stage for the skills-model of leadership developed by Mumford *et al.* (2000) that frames leadership by describing **five components** of leader performance: competencies, individual attributes, career experiences, environmental influences, and leadership outcomes. The **competencies** (*problem-solving skills, social judgment skills, and knowledge*) are central to the model and are the fundamental determinants of **leadership outcomes** (*effective problem solving and performance*) (Northouse, 2016). The competencies are influenced and impacted by **individual attributes** (*cognitive abilities, motivation, and personality*), **career experiences,** and **environmental influences** (Northouse 2016).

The skills-model by Mumford *et al*. (2000) is essentially a map to reach effective leadership. Northouse (2016) predicts that the skills-model may be used in the future as a template to design leadership professional development programs (PD). The skills-model provides a picture of how skills relate to

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the growth of effective leaders (Northouse 2016) and can be utilized in leadership PD to support and encourage teachers in understanding the factors that affect their leadership competencies and ultimately leadership outcomes.

Skills-Model Application and Examples

For example, after identifying one's own leadership **competencies** (problem-solving skills, social judgment skills, and knowledge), Anatomy and Physiology faculty participating in a skills-model based leadership PD would consider the impact of their own individual attributes, career experiences, and environmental influences on those competencies. **Individual attributes** may include their own level of openness to providing genuine mentorship to their TAs or their personal level of motivation to restructure their course and facilitate more active-learning experiences. Faculty may reflect on the manner that their level of **career experience** influences their understanding of the perspectives and attitudes that their course TAs have towards instructional practices and student learning in Anatomy and Physiology. Faculty may also consider how their experience impacts their ability to adapt to meet their TAs' needs. In recognizing the impact of **environmental influences** on leadership competencies, faculty may consider the influence of internal factors such as communication with or initial expertise of TAs.

The skills model establishes the importance of leaders having problem-solving skills, social judgment skills, and knowledge to become an effective leader (Northouse 2016). Framing leadership in terms of skills makes leadership something that can be learned or developed and essentially available to everyone (Northouse 2016). Describing leadership as a set of skills transforms it into a process that faculty can practice to develop and cultivate their identity as a teacher-leader.

Conclusions

The importance of the role of graduate student TAs in undergraduate Anatomy and Physiology education has been very much overlooked in Anatomy and Physiology education literature. Modern learning theory has established that the shift from traditional instructionist methods to meaningful active-learning experiences is where the future of education is headed. Considering that TAs deliver the laboratory portion of the course where meaningful interaction is essential to the Anatomy and Physiology student learning experience, it is important for Anatomy and Physiology faculty to assume leadership roles as mentors and resource providers to diffuse the culture of meaningful active-learning to their course TAs. The SLII® model (situational approach to leadership) provides guidelines that allow faculty to identify the developmental level of each of their TAs and prescribes an effective leadership style to meet each of their specific needs. The skills-model (skills approach to leadership) frames leadership in terms of learnable skills so that leadership is something that can be developed and essentially available to everyone. This model acts a map to reach effective leadership and can be utilized in leadership PD to support and encourage teachers in understanding the factors that affect their leadership. By purposefully exploring leadership strategies and techniques, Anatomy and Physiology faculty can assume effective leadership roles as mentors and resource providers to support their course TAs and together build a course culture of meaningful active-learning experiences.

Future considerations include the development, implementation, and testing of a leadership model specific to faculty looking to assume leadership roles in providing support and mentorship to graduate student TAs. Furthermore, suggestions for future explorations include role of emotional intelligence in leadership development. Goleman (2000) indicates that leaders relying on more than one leadership style, depending on the needs of a situation, garner best results. The investigation of how TA background, experiences, practices, attitudes, and emotional intelligence impact the undergraduate student learning experience would be invaluable in developing this leadership model and its successful application in leadership PD.

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