The Learner-Centered Syllabus: From Theory to Practice in Allied Health Education

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ABSTRACT
The national focus in higher education in shifting from the instructional to the learning paradigm where the emphasis on student-centered learning is of paramount importance. Instructional paradigms focus on "providing instruction" with distinct emphasis on the role of the teacher. Under this structure, students are typically passive listeners and the instructor is the center of teaching and instruction. The learning paradigm, on the other hand, focuses on the outcomes of the educational process thereby "facilitating learning". The role of the student is one of an active participant who is encouraged to become engaged in the learning process through various interactive activities facilitated by the instructor. The learning paradigm strives to produce an empowered, informed, and responsible student by putting the student at the center of the classroom. This learner-centered process theoretically embraces continued improvement in the quality of learning. The learner-centered syllabus is a productive tool that can facilitate this transformation from teaching to learner-centered classrooms. The purpose of this manuscript is to integrate theory into practice as faculty shift towards more learner-centered practices. Deeply rooted in the literature, this manuscript provides suggestions for the implementation of a learner-centered syllabus from a specialized allied health care perspective – athletic training. A brief overview of student-centered learning theory coupled with a framework for constructing a syllabus that fosters an environment which focuses on learning is presented. Particular emphasis is placed upon successful implementation and integration of the syllabus throughout the entire semester to promote student success.

INTRODUCTION
Education in athletic training – an allied health care field focusing on the care of physically active individuals - has undergone significant changes in the past decade. Paralleling these changes has been a national focus in higher education on student-centered learning shifting from the instructional paradigm to the learning paradigm.[1-3] At the core of the student-centered paradigm are the expectations that the instructor sets forth for student performance – the course syllabus.

The first point of interaction between faculty and students, the student-centered syllabus creates a clear vision of all aspects of the course. By promoting self-regulated learning, the student-centered syllabus establishes a clear description of the student role in the learning process and the expectations and values of the faculty member. Further, the student-centered syllabus can provide mechanisms for enhancing student note taking and studying, reducing test anxiety, and obtaining course resources which otherwise may need to be addressed individually.

Student-centered learning has been discussed extensively in the literature from the instructor and student perspectives.[4-7] Although the basic principles of student-centered learning are familiar to most, many faculty members struggle with the application of these principles into various aspects of course construction. A student-centered syllabus can assist in the preparation of students for all aspects of the course, sets a framework for knowledge, and encourages student responsibility for learning.[4,6,8] From the planning stages (establishing course rationale, expectations, course content, student learning

activities, and resources) through the implementation stages (initial presentation, frequent references to content, and appropriate utilization of content), the student-centered syllabus is at the core of the course thereby facilitating the creation of a purposeful environment promoting active engagement in the learning process.[8]

Learner-Centered Theory
Although much literature exists regarding the impact of learner-centered educational practices, many educators continue to teach in similar ways in which they were taught. Nordvall & Braxton contend that investigating course level processes is the critical first step in improving undergraduate education including the level of academic demands and the expected rigors of a course.[9] Careful reflection on all aspects of a course is fundamental to integrating theory into practice.

Cognitive psychology is a family of learning theories that emphasizes the role of the learner in the construction of knowledge. Specifically, these theories emphasize the important role of social interaction in the learning process. Learner-centered practices are deeply rooted in social and cognitive constructivism where active learning is central to processes and outcomes.[10-12] Establishing the appropriate classroom environment facilitates student learning and engagement. Literature indicates that students learn best during active participation in the classroom.[13,14] Active learning activities promote student knowledge and enhance understanding of course content.

Although many may argue that learner-centered activities can not be planned for large courses, the contrary is true. Tremendous success has been found when integrating active learning strategies for large courses. Dividing the students into dyads, triads, or small groups and using strategies such as enhanced lectures, think-pair-share, and short writes all work well with large class sizes.[5,15]

As a professor, it is critical to recognize that the choices one makes regarding all aspects of the course have a profound impact on the learner. When designed appropriately, choices of pedagogy and curriculum structure shape learning because they encourage student involvement in the learning process.[16] There is a growing body of literature that establishes that student learning is enhanced when placed in situations where students share learning in a connected and positive environment and through active participation in the learning process. The establishment of this positive environment begins with the course syllabus. The tone one sets with the presentation and structure of the course is directly reflected in the syllabus.

Using the course syllabus to communicate the *essence* of the course rather than simply logistical information takes careful reflection. Planning and preparing the syllabus takes time, energy, and critical analysis of one's current practices and expected outcomes. This time consuming and sometimes challenging procedure is often overlooked and rushed as faculty members prepare the syllabus immediately preceding the beginning of each semester. Kreber and Cranton contend that developing the scholarship of teaching to promote learning is deeply rooted in reflection on experience-based knowledge and research on teaching literature.[17]

Although many theories exist on reflective practices, an early theory by Mezirow dominates.[18] This theory emphasizes a series of reflections regarding each decision made for the course. Content Reflection deals with the choices one makes regarding the actual content of the course; Process Reflection looks at how one goes about delivering the content; and Premise Reflection – a critically overlooked step – requires one to consider why the content is important.

Kreber and Cranton further developed this model to link instructional knowledge, pedagogical knowledge, and curricular knowledge into each of the reflections.[17] This more comprehensive model encourages the faculty member to critically evaluate strengths and weaknesses in each of the areas. By evaluating one's practices, areas for improvement can be identified. Classroom and action research are excellent ways to facilitate reflection and investigation of ones processes.

The quest for quality in college teaching is of widespread concern, and teaching effectiveness is complex and multidimensional.[19] Although reflection is one way to improve teaching and learning, teaching can also be improved through trial and error and student feedback. Hativa, Barak, and Simhi indicate that exemplary teachers tend to use a wide range of teaching strategies and have a broader scope of self-reflection tools to assist with self improvement.[20] Exemplary teachers were also found to be highly organized, have high expectations, provide regular feedback, treat students as individuals, encourage and intellectually challenge students, and create a positive teaching environment. Rapport and interaction with students were also found to be keys to effective teaching. Several authors found that effective communication, comfortable learning environments, concern for student learning, student motivation and course organization are highly related to teacher effectiveness.[21,22] Each of these elements can clearly be articulated and implemented through a carefully constructed course syllabus that emphasizes the learner.

Constructing the Learner Centered Syllabus

Creating the learner-centered syllabus is a challenging task that takes considerable preparation and reflection. Emphasis on educational learning theory should guide the construction and presentation of the syllabus. According to Diamond, communicating high standards for students is instrumental and must be clearly articulated in the learner-centered syllabus.[4] The major goals of the learner-centered syllabus are to: a) define students' responsibilities; b) define instructor's role and responsibilities; c) provide goals and student learning outcomes; d). establish standards and procedures for evaluation; e) define course logistics; f)\ establish a pattern of communication; and g) provide access to course materials such as readings or difficult to obtain graphics (Table 1). Although the construction of the learner centered syllabus may seem simple, it is the careful thought and reflection that occurs prior to the creation of the document that lays the framework for success.

Table 1 **Components of a Learning-Centered Syllabus**

Student's role and responsibilities
Instructor' role and responsibilities
Student learning outcomes of course
Evaluation standards and procedures

Defining the Role of the Student

Students want to know what role they will have in each course. The purpose of defining the responsibilities of the student clearly is to promote lifelong learning and self-responsibility for the acquisition of the course content. Learner-centered educational environments must focus on the individual learner in combination with pedagogical strategies that incorporate the knowledge about how students learn. Research indicates that the passive lecture-discussion format where the student role is to primarily listen is contrary to principles relative to student learning.[23] Therefore, setting the stage for student learning can have a profound impact only if the student understands the roles and responsibilities for the learner-centered course.

When creating the learner-centered syllabus, it is vital to teach students about the theoretical framework that shaped the construction of the course. By discussing what "active learning" entails, students will more likely understand their role and responsibilities for the course and be more likely to actively engage themselves in course discussions and activities. By communicating that the student is the "chief agent" in the educational process, learning takes on a whole different perspective.[1]

Defining the Role of the Faculty Member

Equally important, the learner-centered syllabus should clearly define the role of the instructor. Although this may seem ridiculous to many, a learner-centered classroom positions the instructor differently than a traditional classroom. Students must understand that this classroom will function differently - from the student and instructor perspectives - and this can be articulated in the course syllabus.

Since most faculty members are not trained formally in educational learning theory, many learn from trial and error. Halpern & Hakel contend that although professors are trained rigorously in their academic disciplines, very few have received formal training in learning theory and its application in higher education that has an impact on long-term retention and transfer.[24]

Although experts in respective disciplines, it is often challenging for a faculty member to focus on different ways of teaching. Robertson addresses a developmental model for teaching which describes Egocentrism (teacher-centeredness), *Aliocentrism* (learner-centeredness), and *Systemocentrism* (teacher/learner-centeredness).[25] He contends that a faculty member masters egocentrism by mastering the course content, then progresses into aliocentrism by considering diverse teaching strategies to try to engage the student, and finally reaches systemocentrism where the teacher critically reflects on his/her teaching and acknowledges it as part of the growth process. As a faculty member progresses into the rigors of learner-centered approaches to teaching, the course syllabus is likely to reflect these changes and define the role of the instructor in various ways.

Providing Clear Statements of Goals and Student Outcomes

Diamond encourages clear statements of goals and student learning outcomes as part of the syllabus.[4] These goals and outcomes must strive to create a learner-centered atmosphere in which positive personal relationships are created, student ideas and opinions are honored, higher-order thinking is facilitated, and student individual needs and beliefs are addressed.[26] It is critical to promote self-regulated learning as a significant portion of the course expectations and goals in the learner-centered syllabus as it will provide the framework for the entire course.

Theoretically, Halpern & Hakel argue that the main reason for undergraduate education is the transfer of learning; taking what one has learned and accurately applying it at some point in the future.[24] This is particularly critical in allied health education involving both didactic and clinical education. In order to accomplish this transfer, students should be provided the opportunity to "practice retrieval" at many points and under various circumstances throughout each course. These authors encourage maximizing prior knowledge by using reflection and inquiry prior to each task. These goals for transfer and application should be clearly stated as part of the goals and outcomes for each course thereby setting the expectation of higher order thinking in both the process and outcomes of the course.

Defining Evaluation Strategies

Evaluation is another key area that should be addressed in the learner-centered syllabus. Students are keenly aware that the grade one receives in a class reflects positively or negatively on their overall academic performance. However, it is the role of the instructor to transform these thought processes by formulating evaluation schema that reflects overall performance, not simply test-specific knowledge. The learner-centered syllabus goes beyond simply providing grading procedures and grading scales. Educational learning theorists encourage the incorporation of all levels of Bloom's taxonomy of educational objectives: knowledge, comprehension, application, analysis, synthesis, and evaluation in the instruction and evaluation of a learner-centered classroom.[27] Students should be provided multiple opportunities to demonstrate understanding of cognitive, psychomotor, and affective content through carefully constructed activities.

Often, providing for student choice in the evaluation of student performance can motivate students to perform in the classroom. Choices in activities can help capitalize on student interests and provide student autonomy. Activities and tools such as group work, projects, research, learning contracts, self-evaluation, portfolios, presentations, journals, and essays can serve as viable options to the more traditional evaluation strategies.[8] By reviewing and understanding the evaluation criteria in the learner-centered classroom, students will be able to recognize the balance of power, the function of the content, the role of the teacher, the responsibility for learning, and the purpose and processes of evaluation as the key elements of instructional practices.[28]

Providing Course Logistics

Often seen as the sole purpose of a course syllabus, the role the learner-centered syllabus in providing course logistics can not be understated. Students need a concise reference regarding course meeting time, location, instructor office hours, contact information, and other valuable information. However, a learner-centered syllabus provides more than simple logistics. It provides valuable information regarding successful completion of the course including course outlines, weekly/daily schedules and calendars, due dates, supplies, lab fees, readings and other resources. It should also include descriptions of course projects, tests, and grading criteria.

Establishing Communication Between the Instructor and the Student

One of the most important functions of the learner-centered syllabus is that it establishes the first line of communication between the student and the instructor. This document sets the tone for the remainder of the course and can either encourage or discourage open communication as it is the first point of contact with most students. Carefully constructed components of the syllabus such as a letter to the student, background information regarding the instructor's research interests, and word choices (negative versus positive) can shape the dynamics of the course for the entire semester.

Central to the learner-centered syllabus is consistency in what is presented and how it is presented. If the syllabus reflects an open classroom environment yet the instructor discourages interaction, the document and its contents are disregarded. Fritschner studied communication in introductory courses and suggested that students perceived questions and discussion as unwelcome despite claims to the contrary as a reason for non-participation in classroom activities.[13] Further, Stage & Milne concluded that faculty member interaction was a significant indicator of whether students with disabilities experienced a positive or negative classroom experience and found that interaction was important to student success overall.[29]

Providing Learning Resources and Tools

Last, the goal of the learner-centered syllabus is to provide access to educational materials and resources. Additional learning tools such as library, interactive, and technological resources can be listed as well as tips for studying, note-taking strategies, study questions, sample test questions, pre-class tasks, learning style inventories, and learning activities to provide a comprehensive resource guide for learners.[8]

Conclusion

Bridging theory to practice is a daunting task in allied health education. In their landmark article on transitioning from a teaching paradigm to a learning paradigm, Barr and Tagg quote Albert Einstein, "The significant problems we face cannot be solved with the same level of thinking we were at when we created them."[1] Faculty members must be committed to changing the way in which we teach. This begins with the course syllabus. Barr and Tagg contend that careful consideration

of the mission and purpose, criteria for success, learning and teaching strategies, learning theory, productivity and funding; and nature of roles within the institution are fundamental in crafting a learning-centered classroom.[1]

The mission and purpose of the course should communicate a message that encourages student participation, discovery, and construction of knowledge. The criteria for success should be broad in scope to encourage success in all students. Using a single measure of success such as examinations discourages learning over time. The teaching/learning strategies in the learning paradigm should be multifaceted, experiential, and collaborative. Learning theory should provide the framework for all we do in the classroom. Lastly, the role of the faculty member and the student should be clearly defined in the course syllabus to facilitate the transition into these unfamiliar roles. Thoroughly describing expectations, parameters, and goals for the course will help students understand their individual and collective roles in the functioning of the class. By focusing on educational reform at the fundamental level, the course syllabus can provide the framework for reconfiguring the way in which we operate in the clinical and didactic settings, communicate with students, and deliver content.

References

1. Barr, R, Tagg, J. From teaching to learning – a new paradigm for undergraduate education, *Change.* 1995; 27:12-25.
2. Thompson, J, Licklider, B, Jungst, S. Learner-centered teaching: postsecondary strategies that promote "thinking like a professional". *Theory into Practice,* 2003;42:133-141.
3. Bruffee, KA. *Collaborative learning: Higher education, interdependence, and the authority of knowledge.* Baltimore: Johns Hopkins University Press; 1999.
4. Diamond, RM. Foreward. In J. Grunert (Ed.), *The course syllabus: A learning-centered approach.* Bolton, MA: Anker Publishing Company, Inc.;1998.
5. McKeachie, WJ. *Teaching tips: Strategies, research, and theory for college and university teachers.* Lexington, Mass: D.C. Heath and Company; 1994.
6. Pregent, R. Charting your course: How to prepare to teach more effectively. Montreal: Magna Publications; 1994.
7. Angelo, TA, Cross, KP. Classroom assessment techniques: A handbook for college teachers. San Francisco: Jossey-Bass; 1993.
8. Grunert, J. *The course syllabus: A learning-centered approach.* Bolton, MA: Anker Publishing Company, Inc.; 1997.
9. Nordvall, RC, Braxton, JM. An alternative definition of quality in undergraduate college education: Toward usable knowledge for improvement. *J Higher Ed.* 1996;67:483-497.
10. Halpern, DF. The war of the worlds: When students' conceptual understanding clashes with their professors. *Chron Higher Ed.* 1997; 27:B-5.
11. Strauss, S. Confessions of a born-again constructivist. *Ed Psych.* 1996;31:15-21.
12. Vygotsky, LS. *Mind in society: The development of higher psychological processes.* Cambridge, MA: Harvard University Press; 1978.
13. Fritschner, LM. Inside the college classroom: Faculty and students differ on the meaning of student participation. *J Higher Ed.* 2000; 7:342362.
14. Howard, JR., Henney, L. Student participation and instructor gender in the mixed-   age classroom. *J Higher Ed.* 1998;69:384-405.
15. Bonwell, CC, Sutherland, TE. The active learning continuum: Choosing activities to engage students in the classroom. In T.E. Sutherland & C. C. Bonwell (Eds.), *Using active learning in college classes: A range of options for faculty.* New Directions for Teaching and Learning No. 67. San Francisco: Jossey-Bass; 1996.
16. Tinto, V. Classrooms as communities: Exploring the educational character of student persistence. *J Higher Ed.* 1997;69:599-623.
17. Kreber, C, Cranton, P. Exploring the scholarship of teaching. *J Higher Ed.* 2000;71:477-495.
18. Mezirow, J. *Transformative dimensions of adult learning.* San Francisco: Jossey-Bass; 1991.
19. Marsh, HW, Roche, LA. Making students' evaluations of teaching effectiveness effective. *Am Psych.* 1997;52:1187-1197.
20. Hativa, N, Barak, R, Simhi, E. (2001). Exemplary university teachers: Knowledge and beliefs regarding effective teaching dimensions and strategies. *J Higher Ed.* 2001;72:699-729.
21. Young, S, Shaw, DG. Profiles of effective college and university teachers. *J Higher Ed.* 1999;70:670-686.
22. Schapiro, SR., Livingston, JA. Dynamic self-regulation: the driving force behind academic achievement, *Innov Higher Ed.* 2000;25:23-35.
23. Guskin, AE. Reducing student costs and enhancing student learning – Part II: Restructuring the role of the faculty. Change. 1994;26:16-25.
24. Halpern, D, Hakel, M. (2003). To the university and beyond: teaching for long-term retention and transfer. *Change,* 2003; 45:27-41.
25. Robertson, DL. Professors'perspectives on their teaching: a new construct and developmental model, *Innov Higher Ed*, 1999;23:271-290.

26. Pierce, JW, Kalkman, D. Applying learner-centered principles in teacher education, *Theory into Practice.* 2003;42:127-132.
27. Bloom, BS. (Ed.). Taxonomy of educational objectives: Cognitive domain. New York:McKay;1956.
28. Weimer, ME. *Learner-centered teaching: Five key changes to Practice.* Indianapolis: Jossey-Bass; 2002.
29. Stage, FK., Milne, NV. (1996). Invisible scholars: Students with learning disabilities. *J Higher Ed.* 1996;67:426-445.