Deserving Design: The New Generation of Student Veterans

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Abstract

Thousands of veterans with disabilities have become students since their return from combat. Many such veterans, though, are finding that their combat experiences often create an undeserving imbalance for them as they trade ammunition for education. And many colleges, where these veterans attend, are finding that they are ill prepared to level the playing field for them. The purpose of this article is to integrate research on undergraduate education and Universal Design (UD) to forge a framework for designing a balanced university environment for student veterans with disabilities. Specific components that campuses should consider incorporating to help student veterans with disabilities manage their challenges and ease into reintegration will also be discussed.

Many college students have difficulty with balance – balancing their many social choices with their academic responsibilities. Natasha McKinnon, a student studying animal science at NC State, is taking the necessary steps to find her balance in the university. This is in addition to her finding her balance with her new left foot.

In October 2005, McKinnon was a soldier riding in the front seat of a Humvee in Iraq when an improvised explosive device (IED) went off underneath it. Black smoke filled the vehicle making it impossible for her to see her injuries. But when she reached down to retrieve her weapon, she remembers, "I could feel blood" (Quillin, 2008). Her training taught her to apply a tourniquet; she did that and lived. But when she woke up in a military hospital in Baghdad, there was shrapnel in her right leg and her left leg was severed below the knee (Quillin, 2008).

After two years of recovery at Walter Reed Army Medical Center and more than 20 prosthetic limbs later, McKinnon is able to walk some without assistance, but usually relies on a cane or crutches. From her apartment, she drives to campus and seeks out accessible parking spaces as close to her classroom buildings as possible. She has learned to build in extra time to "hunt" for spaces and loop around buildings to reach access ramps and elevators, so as to avoid stairs. By the time she gets to class, McKinnon says, "I don't have the energy to hear what the prof is saying" (Quillin, 2008).

As tens of thousands of veterans with physical and/or mental impairments from Afghanistan and Iraq use their GI Bill benefits, McKinnon and others like her are finding that their combat experiences often create an undeserving imbalance for them as they trade ammunition for education. Education, according to Oak (2008) is a "self-enlightening process; an important component of life" (p.1). Higher education's challenge is to level this imbalance for student veterans with disabilities by creating a complete college education through the use of intentional design.

Complete Education

What is meant by a complete education? McCain (2005) views it as faculty melding school skills with real-world skills. When faculty teach school skills, they are engaged in the acculturation of individuals by passing on societal knowledge and wisdom. These skills equip students to become informed, thoughtful citizens capable of processing the complexities of modern life. When faculty teach real-world skills, they are emphasizing the acquisition of practical problem-solving skills, which enables students to successfully apply their learning to real-life situations in the workplace and in their personal lives.

If queried, most student veterans with disabilities would probably agree that they expect faculty within their chosen curriculum to expose them to both sets of skills. However, for some faculty, doing so would interfere with their proclivity to tell students what they need to know and do, after which they test them

to see if they retained the information. For long-term content retention (school skills) and life-skill learning (real-world skills), McCain (2005) suggests that faculty need to design a methodology for problem solving. This would require substantially altering the roles of faculty and student such that faculty would focus on structuring problems that would allow for student self-discovery. The designing of such an educational experience would probably be quite a daunting task for faculty, as many of them do not see themselves as "designers" of course content but as "purveyors" of the content contained in the pre-selected textbook.

Use of Design to Solve Problems

Bhan (2007) believes that design is a philosophy, based on a system of values, which seeks to solve problems. Similarly, Archer (1973) and Jones (1970) offer that design is experience, skill, and knowledge being used rationally, logically, sequentially, and intentionally to solve problems.

The instructor/designer then identifies and analyzes a problem or need and proceeds through a structured sequence by which information is researched and ideas are explored and evaluated until the most favorable solution to the problem or need is forged (UK Technology Education Centre, 1996). The solution will not be reached though without knowing whether or not the problem to be solved has been correctly framed (Bhan, 2007).

A Universal Design Approach

The framing of the problem by the designing instructor involves answering the questions, "What do I want my students to know/experience in my course," and "What do I want them to be able to do, once my course is over?" (Gocsik, 2007). When the answers become apparent, they become the framework by which an inclusive teaching model - a universally designed model – is created. This model will inherently advocate for responding to the myriad of learning needs of student veterans in higher education classrooms. This is also human-centered design, an approach that solves problems by conditions/constraints of the end user, the student. The understanding of such will help dictate the goals of the course.

The designing instructor should then work backwards to ensure that all readings, writings, discussions, examinations, and practical experiences would connect students with the questions, problems, and skills that the instructor deems essential to the course. When the designing instructor can successfully design a course that meets an unmet need for information/knowledge, it becomes good design. This universal/intentional/human-centered design approach asks faculty to rethink some fundamental educational concepts, to contemplate educational equity for all kinds of learners, and to consider a variety of ways in which the educational environment can be designed or adapted to accommodate students' current and changing needs.

It seems likely that if individual faculty can be empowered to become intentional course designers, then so can universities become intentional/universal/human-centered designers of students' total campus experiences. Thinking within this paradigm, the seminal question becomes, how do we design campus experiences that help to prompt the student veteran with disabilities, to take responsibility for, and control over, his or her own learning?

Designing Campus Experiences for Wounded Warriors

The war in Iraq and the Afghanistan operation have had, and will continue to have, profound effects on military service members returning from combat and entering college classrooms as combat is a life-changing event. Many colleges and universities have spent enormous amounts of money and resources on homecoming ceremonies but "homecoming" should be more than an event, it should be a process fueled by various campus resources that seek to connect the student veterans with the institution. For many service members turned students, college life is about seeking new purposes and reclaiming their adult lives. Lives they began in the military to become civil, productive, and responsible citizens. The same lives that have now been altered by the physical and/or mental impairments they now have as a result of their military service.

A college dedicated to designing a complete education for student veterans with disabilities should embody equality, excellence, and diversity. When they were service members, these students had to push themselves physically and mentally in preparation for military life. They had to make adaptations so as to survive in combat. They had to deal with constant threat and uncertainty on the battlefield. They should not have to deal with constant threat and uncertainty on our college campuses because of poor design.

At North Carolina State University, student

veterans were polled and asked to respond to these two questions among others:

1. Rate your experience – *outstanding, very good, fair, disappointing* – regarding your transition from the military to the University and to what do you attribute your experience?
2. How can the University assist you in your transition?

One respondent stated, It's not quite what I thought it was going to be because it's two totally different worlds. I really didn't realize how different I was from the majority of my class until I got here.

Another student veteran said:

The major problem here is there is such a difference between me and my 17- and 18-year old classmates. Plus I know absolutely nobody here and that difference between us makes it hard to make friends. Younger classmates tend to look at you a little differently; which they should….but…it makes it tough to be social. Meeting other veterans would definitely help because we are on the same page. We understand each other.

While these comments come from student veterans taking courses at NC State, they are probably representative of the sentiments of this new generation of student veterans on other campuses across the country; student veterans who are deserving of intentional/universal/human-centered design of the physical, programmatic, informational, and attitudinal environments within higher education. Designing with such intent should result in naturally inclusive, barrier free learning and social environments that create value and enhance the student veterans' experiences requiring fewer adaptations and accommodations.

Table 1

Strategic Design

Steps in the process
1. Identify the challenge.
2. Research and brainstorm
3. Design a solution
4. Test ideas
5. Evaluate
6. Implement it

Strategic Design

When engineers set out to solve problems, they use a design process that provides them with general directions regarding the steps they must take. When the steps are followed sequentially, the odds are increased that the design will work. When possible, complete education designers should follow the steps summarized in Table 1. Specifically, they need to understand the challenges of student veterans with disabilities on their specific campuses before attempting to solve them.

Once identified, the designers should research all that is related to the challenges that have been identified. The designers should ask if similar challenges to those of the student veterans with disabilities have been met before on their campuses? If so, how? If not, why not? Then, because the best solution to a problem is not always the first idea conceived, ideas should be exchanged in an open forum with a variety of constituencies present.

When an idea about a solution has been settled on, intentional designers should prepare detailed plans for such, and solicit feedback. They should also expect to modify the design for a complete education for student veterans with disabilities as feedback is received.

The only way for intentional designers to know if their design will work in real-world conditions is to create a pilot student veterans with disabilities program and then test it. If during the pilot program, the initial design doesn't fully solve the problem or meet the challenge, the designers should go back and repeat the above steps. Since what doesn't work will now be apparent, the designers will be in a better position to develop an idea that does work on behalf of student veterans with disabilities. If the design does solve the problem, then it's on to the final step, which is to implement it (Teachers' Domain, 2004).

Merging Teaching and Learning Practices with Principles of Universal Design

The extended research of undergraduate education

done by Chickering and Gamson (1987) produced seven practices for improving teaching and learning: (a) encourage contact between students and faculty, (b) develop reciprocity and cooperation among students, (c) encourage active learning, (d) give prompt feedback, (e) emphasize time on task, (f) communicate high expectations, and (g) respect diverse talents and ways of learning. While each practice can stand alone, when they are all present in undergraduate education, their effects are exponential and employ powerful forces: activity, expectations, cooperation, interaction, diversity, and responsibility.

These practices and forces have an uncanny but natural resemblance to the Principles of UD: (a) equitable use, (b) flexibility in use, (c) simple and intuitive use, (d) perceptible information, (e) tolerance for error, (f) low physical effort, and (g) size and space for approach and use (Center for Universal Design, 1997). This resemblance is because the seven principles for good practice and the seven principles for UD concern matters of equitable access to education. They promote equity and further the development of diverse and engaged student citizens.

As seen in Table 2, infusing these practices and principles in the design process outlined above, results in a complete education for student veterans with disabilities. A complete education is useful to participants with diverse abilities who bring different talents and styles of learning to college. Student veterans developed numerous skills that kept them alive in combat. They will need the opportunity to demonstrate these skills and learn in ways that work for them. Once that happens, they can be encouraged to learn in new ways.

The approach is flexible to accommodate a wide range of individual preferences but it will also acknowledge that learning is enhanced when it is more like a team effort. In combat, unit cohesion was vital for survival, so an intentionally designed educational environment for student veterans with disabilities should emphasize collaboration, not competition and isolation. Intentionally designed education is easy to understand, regardless of the student's experience, knowledge, language skills, or current concentration levels, but if the student veteran with disabilities is having difficulty, an environment that encourages contact between them and faculty/staff is important. Having concerned faculty helps student veterans get through the difficult times and keep moving forward.

It also lends itself to being easy to communicate necessary information effectively to the student veteran regardless of his/her sensory abilities. And the knowledge of the presence of student veterans' functional limitations would never mean that expectations are lowered. Some veterans turned students, chose the military for reasons other than patriotism. They chose military service because they felt poorly prepared and never thought they could succeed in college and serving their county seemed to be a viable alternative to working in a minimum wage paying job. High expectations at the college level are important, and they should be for student veterans with disabilities as well. Expecting them to perform well becomes a self-fulfilling prophecy.

Students, in many ways, are novices and subject to mistakes. A well designed education makes it possible to minimize the adverse consequences of unintended actions. Soldiers in combat are trained to make split second lethal decisions in often highly ambiguous environments. This kind of targeted aggression keeps the soldier alert, awake, and alive. Students who make hasty decisions and execute unintended actions are often the recipients of adverse consequences on college campuses. Student veterans with disabilities will benefit from experiences that help them in learning that rarely will they need to make such harrowing split second decisions and that when a decision needs to be made, they should spend the necessary time to do so. While in Iraq or Afghanistan, the student veteran did not have the luxury of time so helping them understand that there is no substitute for time on task is crucial. Allocating realistic amounts of time to tasks yields high performance.

When intention is given to design, it is possible for student veterans with disabilities to participate in all components of their complete education with efficiency and a minimum of fatigue. There is very little that can be accomplished by just sitting and listening, as attending college is not a spectator sport. But, attending college should not be such an arduous physical feat that it prohibits active participation by student veterans with disabilities.

It also makes it possible for the student veterans with disabilities to fully participate in the complete educational experience regardless of their body size, posture, mobility, or psychological motility. A student veteran's knowledge or perception about where they can "fit in" or "be a part of" is the basis of what

Table 2

A Complete Education

The result of infusing good teaching and learning practices with the principles of universal design

1. accommodates diverse abilities, talents, and learning styles
2. accommodates a wide range of individual preferences
3. is easily understood regardless of the student's experience, knowledge, language skills or concentration levels
4. is easily communicated regardless of the student's sensory abilities
5. minimizes the adverse consequences of unintended actions
6. allows for the participation of students with efficiency and minimum fatigue
7. allows for full student participation regardless of body size, posture, mobility, or psychological motility

they decide to experience while on our campuses. While in combat, the service members had to have control of their emotions; it was critical for mission success. Expressing to others that they feel the size and/or space is not conducive to them for approach, reach, manipulation, and use can be difficult, if not impossible, for most student veterans with disabilities. Sometimes a student veteran's perspective about such is narrow. Having persons who can provide student veterans with disabilities with prompt feedback about such concerns is paramount. When just getting started, the student veteran will likely need help in assessing their existing competencies. As they progress, they will need frequent opportunities to participate and receive suggestions for improvement and to reflect on it all.

Reintegration

While it is probably true that most college campuses will present some imbalances for student veterans with disabilities, the proportion or distribution of that imbalance will be specific to each institution and each student. McKinnon, the soldier who lost her leg in Iraq in 2005, noted that "not only am I a full-time student, I'm a full-time patient. It takes a toll, mentally and physically. Sometimes I'm there in class, but only in body. Not in mind" (Quillin, 2008). This student veteran's experience may be considered extreme nonetheless; it is what she brings to the classroom. Given the myriad of experiences of student veterans with disabilities, it is quite obvious that there is no one design that will work on all campuses for creating a complete education. However, there are a few components, summarized in Table 3, which should probably be included by all campuses so as to help student veterans with disabilities manage their challenges and ease into reintegration.

Students of color, first-generation students, and low-income students are typically considered to be "historically underserved students." It could be convincingly argued that many student veterans with disabilities would or could claim a place in such a list of those not typically served well in postsecondary institutions. For historically

underserved students, transitioning to college and adjusting to the academic and social demands and responsibilities can be a great challenge (Green, 2006). Student veterans with disabilities may not be as prepared as their civilian non-disabled peers and may need campuses to rethink and reframe existing paradigms if they intend to reintegrate, retain, and eventually graduate this population of students.

From their first interactions with the university and through their first weeks and months as students, these former veterans should be exposed to thoughtful engagement efforts. Kuh (2007) offers that students who talk about substantive matters with their faculty are challenged to perform at high levels, receive frequent feedback, get better grades, are more satisfied with their educational experience, thus more likely to persist. Colleges must be willing to learn more about these students and induce them to participate.

Student veterans with a disabilities may also need mentoring; a relational process in which an experienced person, a mentor, accompanies them as they begin to examine what they are learning and experiencing in college and evaluate how these experiences affect their sense of who they are. The mentor should be a person who knows or has experienced something and can transfer that something, whether it is wisdom, information, confidence, insight, etc., to the student veteran at an appropriate time and manner, so as to facilitate development or empowerment. This kind of mentoring, as defined by Stanley and Clinton (1992), is intensive and deliberative and is entered into with depth and awareness of effort.

Sarason, Sarason, and Pierce (1990) believe that social support is important because it can provide a "safety net" for a student to explore and experiment in the world. Students, who perceive that they are supported, feel that they have someone to turn to when problems occur. Given that, there should be available programming that will allow student veterans with disabilities to connect with other student veterans, with and/or without disabilities, from the same war/conflict. McKinnon shared that she spent nights and weekends studying and didn't have time to form close friendships at school. But she said she would enjoy vets' company

Table 3

Reintegration

Components that may allow student veterans with disabilities to ease into reintegration
1. Engagement efforts
2. Mentoring
3. Peer support
4. Information
5. Leadership experiences
6. Network opportunities
7. Academic advising
8. Disability services/accommodations

because "they've been there" (Quillin, 2008).

Student veterans returning from Iraq and Afghanistan will, of course, have different combinations of disabilities depending on the type of injury endured but they will all likely experience some difficulty with memory, concentration, and communication. These limitations will necessitate detailed information about the programs, resources, and support services offered at their university and in the community that will benefit and empower them to be successful. Without detailed information, the student veteran will have little opportunity to make informed choices.

Opportunities that will allow student veterans to develop, or continue to develop, leadership skills of integrity so as to enable positive action, accountability, and personal development are also vital. When student veterans with disabilities are engaged in leadership experiences, they can see the possibility of making their dreams a reality. As the dream develops through these experiences, they are more inclined to work hard at the relationships that sustain that momentum, thus keeping them at a level of high integrity and eventual success.

In addition, these students will need opportunities to network with faculty, staff, and administrators across campus who are decision makers and are making things happen. It's about them obtaining information and making contacts that could help them in their day-to-day life. It's also an essential tool for their professional development.

As is true for all students, but especially student veterans with disabilities, they need to have a plan – a clear goal and a step-by-step strategy - for getting there. This can be achieved through deliberate academic advising. This type of advising is more than just putting the student veteran with disabilities in classes. This advising entails understanding how the student veteran's functional limitations, due to combat, impact academic outcomes. For this to be successful, it requires responsible, pro-active behavior on the part of the advisors. The students must be seen as individuals whose uniqueness and diversity are important. This is taken into consideration from the beginning of their academic journey until they have graduated or transferred. This is known as intrusive advisement; advisement based on the philosophy that the advisor and the student share responsibility for the student's academic success or failure. Intrusive advisors are available, maintain clear boundaries, and truly know the college or university and the staff involved in various programs (Connell, 2003, as cited in Thomas & Minton, 2004).

And even when courses, programs, attitudes, and environments have been created inclusively, with all the dynamics of academic life considered, there will still be some student veterans who are having difficulty participating fully due to their functional limitations. The welcoming campus then, through its supportive network, refers these students to the Disability Services Office for the facilitation of reasonable academic accommodations so that they may successfully complete the essential requirements of all courses.

Summary

Student veterans with disabilities will face some social and academic imbalances in higher education and handle them well. In fact, this generation will soon begin to emerge as leaders in every productive sector of society. The combination of their discipline and wisdom gleaned from their sacrifices and injuries while in Iraq and Afghanistan, and higher education's commitment to design a complete and balanced education for them, will catapult this deserving population of students into playing an active role in enhancing the quality of life for themselves, the nation, and the world.

References

Archer, B. (1973). *The need for design education*. Retrieved August 8, 2008, from http://atschool.eduweb.co.uk/trinity/watdes.html

Bhan, N. (2007). *Why is design important*? Retrieved October 1, 2008, from http://www.emergingfutureslab.com/perspective_20/2007/10/why-is-design-i.html

Center for Universal Design. (1997). *The principles of universal design, version 2.0*. Retrieved July 10, 2008, from http://www.design.ncsu.edu/cud/about_ud/udprinciplestmlformat.html#top

Chickering, A. W. & Gamson, Z. F. (1987). Seven principles for good practice in undergraduate education. *AAHE Bulletin, 39*(7), 3-7.

Gocsik, K. (2007). *Designing your syllabus: Backward design*. Retrieved August 9, 2008, from http://www.dartmouth.edu/~writing/files/scripts/print.php

Green, D. (2006). *Historically underserved students: What we know, what we still need to know*. Retrieved March 11, 2009, from http://www3.interscience.wiley.com/cgi-bin/fulltext/113374358/PDFSTART

Kuh, G. (2007). *What student engagement data tell us about college readiness*. Retrieved March 11, 2009, from http://www.aacu.org/peerreview/pr-wi07/documents/PRWI07_Kuh.pdf

Jones, J. C. (1970). *Design methods and technology*. Retrieved August 8, 2008, from http://atschool.eduweb.co.uk/trinity/watdes.html

McCain, T. (2005). *Teaching for tomorrow: Teaching content and problem-solving skills*. Thousand Oaks, CA: Corwin Press.

Oak, M. (2008). *Why is education so important?* Retrieved October 25, 2008, from http://www.buzzle.com/articles/why-is-education-so-important.html

Quillin, M. (2008). *Combat vets face hurdles as students*. Retrieved April 29, 2008, from http://www.newsobserver.com/news/story/1051721.html

Sarason, I., Sarason, B., & Pierce, G. (1990). Social support: The search for theory. *Journal of Social & Clinical Psychology, 9*, 133-147.

Stanley, P. & Clinton, R. (1992). *Connecting: The mentoring relationships you need to succeed in life*. Colorado Springs, CO: Navpress.

Teachers' Domain. (2004). *What Is the Design Process?* Retrieved October 20, 2008, from http://www.teachersdomain.org/resource/phy03.sci.engin.design.desprocess

Thomas, C. & Minton, J. (2004). *Intrusive advisement: A model for success at John A. Logan College*. Retrieved March 11, 2009 from http://occrl.ed.uiuc.edu/Newsletter/2004/spring/spring2004_4.asp

UK Technology Education Centre. (1996). *What is design?* Retrieved August 9, 2008 from http://atschool.eduweb.co.uk/trinity/watdes.html

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