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**Generation Y: A New Generation of Learning**

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**Generation Y: A New Generation of Learning**

by

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# **Generation Y: A New Generation of Learning**

by

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## **Abstract**

In this paper the so-called Generation Y and its impact on education and counseling is examined. The shared experiences of this group of individuals are identified, which contribute to the defining characteristics of this generation. The implications of these characteristics for the learning styles of Gen Yers are discussed.

Recent research has shown that Gen Y differs from previous generations in several ways. Most importantly, Gen Y students have developed a different brain structure, which processes and uses information in a way that is radically different from previous generations (Abram, 2007; Black, 2010; Doidge, 2008; Prensky, 2001a,b,c; & Oblinger, 2003). In this paper the inevitable consequences suffered when schools do not specifically address Gen Y's unique learning styles are explored and outlined. Further, ways in which school counselors and student advocates can address the needs of these students to give them all of the skills they need to succeed in school are examined.

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## **Introduction**

*Different kinds of experiences lead to different brain structures.*

-Dr. Bruce D. Berry, Baylor College of Medicine

The students of today are not just a new generation, they are a distinctively different group of learners. Approximately 100 million members of "Generation Y" fill our elementary, high school, and college undergraduate and graduate classroom seats. Born between the years of 1982 and 2002, this generational subgroup has also been referred to as "The Millennials", "Gen Y", "Net generation", or "GenerationMe". Gen Y is the largest generational cohort in history, yet arguably, the least understood (Active Imagination, 2009).

Unlike any previous generations, Gen Yers are from diverse cultural, economic, and geographic backgrounds (Black, 2010). For example, a majority of these individuals are the offspring of an exponentially growing immigrant population, with 1 in 5 being the child of an immigrant parent (Howe & Strauss, 2000). This has been a growing trend since the mid 1960s, resulting in Gen Y being the generation with the highest number of second generation immigrations in the past 80 years (Howe & Strauss 2000). To exemplify this point, in 2000, 40% of Gen Yers identified as nonwhite, compared to only 14% of Gen X members identifying as nonwhite during the early 1900s (Howe & Strauss, 2000). A large majority of today's population comes from a background vastly

different from their predecessors, contributing to the generation gap (Black, 2010).

Further separating the members of Gen Y from previous generations is their entrenched use of modern technology. According to Bohl (2009), by 2003 86% of all American children were computer literate and intricately connected or networked via cell phone, blog, Facebook, and YouTube, among other networks. Gen Y cannot even imagine a world without technology (Frاند, 2006), as they develop increasingly vast social networks, creating a context for digital friendships. These require constant attention and multitasking skills, contributing to an inability to sit still for extended periods of time. Technology advances have provided this generation continual distraction and the need for instant gratification (Tucker, 2006). Notably, Gen Y's use and dependence on technology has enormous implications for how they learn and spend time in the classroom. These implications have the potential to be both positive as well as negative, depending on the context. A high level of dependence could deter the student from focusing on other productivity (i.e., school assignments) and could be a drawback. However, high level of usage without the dependency requires a certain set of skills and way of thinking. If channeled in the right way by educators, these skills have a high probability of becoming a benefit in the classroom.

The point can be argued that our current 20th century classroom model is increasingly unable to address the preferences and tendencies of these new and unique students (Weiler, 2004). Research repeatedly reveals that the students in today's classrooms are disengaged and bored while the teachers are frustrated with their disinterested students. Baurerlien (2009) in writing about this issue notes, "one of the

biggest problems in undergraduate education today is the so-called ‘disengagement factor’.”( p. np) The disengagement factor is another name for students who can no longer find any motivation in what they are learning in classrooms due their inability to connect the ideas to their everyday lives. Why are they learning how to find a library book when they have Google? Why learn math without a calculator? Without the answers to these questions students are having a hard time connecting, or “plugging in” to the curriculum. The consequence of this inability to connect is further discussed in a later section of this paper.

In order to better understand the issues that exist in today’s classrooms, recent findings regarding the characteristics of today's students, with a focus on how they use information and learn, are summarized, including: Gen Y’s characteristics as a cohort, including their unique learning styles; the current mismatch of today’s education system and its students; and the resulting student challenges and disengagement. The current institutions and individuals who claim to help cultivate and teach today’s youth must begin to adopt policies and practices based upon a realistic picture of their student bodies. In order to do this, an understanding of these students is critical.

## **Chapter One:**

### **Characterizing Gen Y**

Each generation is characterized by a unique set of attitudes, beliefs, and lifestyles. The “Depression Generation” experienced World War II and the Cold War. “Baby Boomers” grew up with the space race, the civil rights movement, Vietnam, and Watergate. “Generation X” saw the fall of the Berlin Wall and the emergence of AIDS and the Web (Oblinger, 2003).

#### *Gen Y Defined*

The current generation, Gen Y, is the biggest cohort to date, consisting of more than 100 million individuals born between the years of 1982 and 2002. Howe and Strauss (2000) are leading psychologists and authors in Gen Y research. They present a comprehensive explanation of the identifying and distinguishing traits of this generation. Gen Y has its own, unique “generational persona” (Howe & Strauss, 2000). These shared characteristics result from events that the majority of Gen Yers have experienced during their upbringing. The more unpleasant experiences include the 80’s child-abuse frenzy, Columbine with its following heightened school security, and the September 11 terrorist attacks. These events resulted in a sheltered Gen Y, watched closely by their parents. Gen Y also grew up in a culture emphasizing little league team sports, “soccer moms”, and pre-organized play-dates. As a result Gen Y developed strong team instincts and tight peer bonds. Generation Yers also faced increasing competition in applying to programs and schools with growing stress on finding ways to shine above the rest. This



pressure to always “be the best” resulted in the characteristics of competitiveness and goal-orientation.

The ability of technology to connect individuals across the world and the global economy, as well as the newly developed methods of communication across cultures, such as Facebook and Skype gave Gen Yers the characteristic of thinking globally. Along with a global mindset, this generation has also been greatly influenced by multiculturalism. “One highly visible way in which Millennial students differ from earlier students is their racial and ethnic diversity” (Broido, 2004). Further, a large number of the Gen Y members are children of first generation immigrants. Immigration has been on the rise in American since the mid 1960s and as a consequence, their offspring has greatly impacted Gen Y’s ethnic and racial demographic (Howe & Strauss, 2000).

Another characteristic that defines Gen Y is their open sexual expression. Data indicate that an increasing number of students are coming out as lesbian, gay, and bisexual. The Millennial generation also includes a greater number of transgender students, or at least more students willing to claim this identity (Broido, 2004).

Gen Y’s great overall diversity has given this generation an evolving perception of social justice and cultural issues, which is generally more extreme and outwardly expressed than the political views of previous generations. Broido (2004) explains that Millennials have more open attitudes toward issues of diversity and social justice. “The Millennial generation is likely to engage in behaviors that relate to social justice issues (including voting, community service, protest and demonstrations, and discussion of social and political issues)”(p. 80).

This widening diversity within Gen Y is unprecedented and creates a clear divide between Gen Y and all the previous generations. Perhaps the characteristic that separates them the most from any other generation, however, is Gen Y's immersion in technology.

### *The Digital Age*

The past twenty years of rapidly developing technological advances have greatly impacted how Gen Y members think and live. This technological culture may be the generation's most defining characteristic. "One might even call it a "singularity" – an event which changes things so fundamentally that there is absolutely no going back. This so-called 'singularity' was the arrival and rapid dissemination of digital technology in the last decades of the 20th century" (Prensky, 2001, p. 1). Markedly, two-thirds of Gen Y students used computers by the age of five, with daily media use averaging eight hours. Such media exposure contrasts sharply with the amount of time these students spend with parents and doing homework (Westerman, 2006-7). Further, with technology having such an impact on Gen Yers' lives, it has shaped how they themselves process information.

### *Neuroplasticity & Brain Structure Changes*

Since the development of neuroimaging technology, studies have been conducted on the brain to better understand its development and structure. Many of these studies have led to a conclusion critical to the focus of this paper: The brain maintains its plasticity for life. Some examples of these studies include the following:

- Ferrets' brains were physically rewired, with inputs from the eyes switched to where the hearing nerves went and vice versa. Their brains changed to accommodate the new inputs.
- Imaging experiments have shown that when blind people learn Braille, visual areas of their brains lit up. Similarly, deaf people use their auditory cortex to read signs.
- Scans of brains of people who tapped their fingers in a complicated sequence that they had practiced for weeks showed a larger area of motor cortex becoming activated then when they performed sequences they hadn't practiced.
- A comparison of musicians versus non-players brains via magnetic resonance imaging showed a five percent greater volume in the musicians' cerebellums, ascribed to adaptations in the brain's structure resulting from intensive musical training and practice (Prensky, 2001b).

Marc Prensky (2001a, b, & c), a prominent figure in the field of research on Gen Y, separates this generation from previous generations based on their unprecedented method of processing and thinking. A researcher and innovator in the fields of education and learning, Prensky has created over 50 software games for learning, including the world's first fast-action videogame-based training tools and worldwide, multi-player, multi-team on-line competitions. His main claim is that "Today's students think and process information fundamentally differently from their predecessors" (Prensky, 2001a, p.1). He reached this conclusion based on outcomes from neurobiology, social psychology, and from studies done on children using games for learning (Prensky,

2001b). He has conducted research on brain neuroplasticity, expanding the research noted above. This phenomenon is the brain's continuous development and reorganization throughout the human lifespan. The brain makes these changes based on the input it receives. Prensky cites one of the earliest studies done on rats in looking at the brain's plasticity. "...rats in enriched environments showed brain changes compared with those in impoverished environments after as little as two weeks. Sensory areas of their brains were thicker, other layers heavier. Changes showed consistent overall growth, leading to the conclusion that the brain maintains its plasticity for life"(Prensky, 2001b).

Doidge (2008) presents further research supplementing the argument that Gen Y's higher exposure to technology causes neurological changes. Doidge (2008) conducted a recent study of twenty-six hundred toddlers revealing "early exposure to television ...correlates positively with problems paying attention and controlling impulses later in childhood" (p.307). These results allow Doidge (2008) to suggest that plastic changes can occur in the brain due to long hours of exposure to electronic media. He states in his research that the "cuts, edits, zooms, pans and sudden noises [of any electronic device]— that alter the brain by activation of what Pavlov called the "orienting response" (p. 309). The brain needs to accommodate the stimuli it is receiving and therefore needs just as fast electric signals to make the linkages between images.

Numerous other researchers and psychologists that are well recognized in this emerging field (Abram, 2007; Black, 2010; Oblinger, 2003; Prensky, 2001) have also shown through experiments, surveys, and MRI's, that the brains of Gen Y students are actually different. MRIs have shown that the brains of individuals from Gen Y have greater physical capacity through increased ganglia and folds of their brains (Abram,

2007). This change in brain structure *profoundly alters the way these students' brains learn, think, read, socialize, and interpret information, thus creating a new generation of innovative, "plugged-in", multitasking students (Learning and the Brain, 2011)*. Having a physically larger brain capacity allows, among other things, multitasking to take place. This relates to how Gen Y learns because being prohibited to multitask leads to boredom and highlights their short attention spans.

#### *Findings from Social and Developmental Psychology*

Along with biological research proving that brains change, there are also recent sociological studies that show thought and behavior changes may be dependent upon environment. The environmental-learning framework, created by leading behaviorist theorists, John B. Watson and B. F. Skinner, emphasizes the impactful role environment plays on human development. According to behaviorist theories, learning “views the mind as a "black box" in the sense that response to stimulus can be observed quantitatively, totally ignoring the possibility of thought processes occurring in the mind” (Mergel, 1998, p. 2) Environmental-learning theorists strongly advocate that it is the external environment that has the greatest influence on development (NetIndustries, 2013).

An experiment comparing a group of Baby Boomers with a group of Gen Yers was conducted by Sam Fiorella, a CEO at Sensei Marketing (Ross, 2012). Sensei Marketing is a business dedicated to helping new businesses market their products and heighten their exposure in the market. He presented both groups with the same information and told them they could take notes in any form they preferred. He noticed that while the Boomers used pen and paper, the Millennials used their technology including laptops,

iPads, and smart phones. He notes that the Millennials gave him little indication that they were retaining anything he was saying as they tweeted and texted with peers. But, when he quizzed the groups at the end, he was shocked to discover that the Gen Y group retained 20% more than the Baby Boomers (Ross, 2012). This experiment suggests that Gen Y brains are constructed in such a way that allows them to multitask and retain information in ways other generations assume impossible. While Gen Y is expanding their brains' power to multitask and take in multiple stimuli through constant use of their brain in this way, Baby Boomers' lack of practice may be the main reason their brains are on the decline in this area. Gen Y brains are wired to take in a great deal of information in a very short amount of time and to act on it quickly. This ability is constantly developed and perfected through the practice Gen Y gives it as they try and navigate their world.

#### *Demand for the Immediate*

Information-seeking has been studied in the field of psychology for many years. Recently, convenience has been seen as a critical factor in information-seeking behaviors, especially concerning research involving Millennials (Connaway, Dickey, & Radford, 2011). Defined by the authors, Connaway, Dickey, and Radford (2011), convenience “can include their choice of an information source, their satisfaction with the source and its ease of use, and their time horizon in information seeking”(p. 170). Their paper analyzed data from two multi-year studies done by the Museum and Library Services. The Institute of Museum and Library Services is the primary source of federal support for the nation's 123000 libraries and 17500 museums. They receive grants that allow them to conduct research on various groups of people across time and places. A study they conducted relevant to the focus of this paper compared information seeking strategies and

methods of “Baby Boomers” versus Millennials. Both studies revealed the Millennials’ preference of technological resources (like Google) as opposed to the Baby Boomers who preferred resources such as a library. It is necessary to highlight are the Millennials’ main reason for choosing such resources. The Internet was chosen 74 percent of the time because it was considered the best source, but it was nearly always chosen (93% of the time) for its convenience and easy use (Connaway, Dickey, & Radford, 2011).

A consequence of this generation becoming so accustomed to resources providing results and/or answers at the push of a button with very little to no wait time is the creation of a group of impatient, multitasking, quick-acting, and demanding individuals (Sweeney, 2006; Mearns, 2012; Rosales, 2012; & Alsop, 2011-2012). Sweeney (2006) conducted 35 Millennial college student focus groups using colleges all across the United States to attempt to understand this generation. Concerning impatience, Sweeney (2006) found that Millennials, in his study groups, admitted that they had no tolerance for delays and expected instant services as well as constant and immediate feedback. This included immediate feedback from teachers (e.g., immediate responses via e-mail).

Corroborating Sweeney’s (2006) study of focus groups, The Boston Consulting Group (BCG), along with Barkley and Service Management Group, surveyed 4,000 Millennials to understand their consumer behaviors. The survey found that the generation is obsessed with instant gratification. Specifically, these surveys found that Millennials are far more engaged in online activities, like rating products and services, than non-Millennials (60 percent, versus 46 percent). And about 60 percent of them regularly upload videos, images, and blog entries to the Web, versus 29 percent of non-Millennials. Also, of interest, Millennials shop for groceries at convenience stores twice as often as

non-Millennials (Mearns, 2012). This point reveals that as a result of having access to immediate results and answers (Google search engine, online rating, etc.), this generation is impatient in every aspect in their lives from education to grocery shopping.

Another research study, conducted by the Pew Internet & American Life Project, revealed the effects of hyper-connectivity as they predicted that this generation will “exhibit a thirst for instant gratification and quick fixes, a loss of patience, and a lack of deep-thinking ability due to what one referred to as ‘fast-twitch wiring’” (Rosales, 2012). A “fast-twitch response” is another way of explaining how a Millennial’s brain is wired; it seeks an immediate response from every external context. Because Gen Yers are accustomed to “fast-twitch”, or immediate responses, they have less opportunity to practice patience or deep thinking skills as well as less motivation to develop those skills. Evidence for this “thirst” is found in a survey conducted by the career center at California State University showing that nearly three quarters of today’s population agree that they want instant gratification (Alsop, 2011-2012) in every context of their lives.

### *Evolving Learning Styles*

Research presented above revealing that it is likely that Gen Y has a different brain structure helps explain the new and constantly expanding learning styles of these students. A fairly new field of neuroscience, neuroinformatics, involves the analysis of the brain processes through various brain imaging tools: Magnetic Resonance Imaging (MRI), Positron Emission Tomography (PET) scans and Optical Topography (OT). Through the use of these devices, scientists can see what part of the brain is being used on a molecular level during various activities. This research shows that if the brain activity of someone over 50 is compared to the brain of someone around 30, there would



be a slight difference in the neural pathways taken to process the same information. Gen Y individuals have more pathways from which to choose. This evidence that there is a fundamental difference between neural pathway usage in the brain activity of 30 years old as compared to those of digital natives (born after 1980) (Jukes & Dosaj 14, 2004) is compelling and central to the thesis of this paper.

In another study conducted by the organization, Time Inc., neuroscientists wired two groups of consumers - Millennials and Boomers - with a battery of biometric technologies. They had 30 participants overall and studied them for 10 hours a day to track how each group's brains responded to media as they went about their daily business. They also used POV mini-cam glasses (glasses that have cameras attached to the lenses allowing observers to see what the wearer of the glasses is seeing), one-on-one interviews, and a follow-up survey of 2,000 consumers to help generate additional data (Mandese, 2011). Following are the major findings of this study:

- Digital Natives (The group of individuals born before 1980 are referred to as “digital immigrants” versus “digital natives”, those born after 1980) switch media platforms—divert their attention from one to another-- 27 times per hour, vs. Digital Immigrants who switch platforms 17 times per hour.
- The extremely short attention spans of digital natives within their media selections translates to a more flattened emotional range among the media they spend time with—fewer highs and lows. The opposite is true of digital immigrants, who as it turns out, are still fairly active between media and switch between media 17 times per hour.
- Digital natives are more emotionally engaged with digital media due to their

early exposure and therefore comfort with that form of media, (55 percent with digital, 48 percent with non-digital) while digital immigrants are more emotionally engaged with non-digital media (60 percent non-digital versus 43 percent digital media) (Mickey, 2012).

Perhaps the biggest take-away from this study is the shockingly shorter attention span of the Millennials versus those born before 1980 (digital immigrants). Further, Millennials pay more attention and are more emotionally tuned-in when they interact with digital interaction. Digital interaction acquiesces their naturally shorter attention spans in their functional design. For example, TV shows have commercial breaks every ten or so minutes, Facebook has a constantly updating newsfeed, and Twitter has a newsfeed as well as conversations one can “follow” by clicking on the individuals involved in each conversation trail. This is critical when considering what little digital interaction these students receive while they are in their school desks listening to one person, a teacher, talk in the front of the room.

Another experiment, conducted for the use of the television show, *Sesame Street*, reveals that children do not actually watch television continuously, but —in bursts (Gladwell, 2000). Their brain actually tunes in just enough times for the child to understand the show. For example, in one key experiment, half the children were shown the program in a room filled with toys. The toys distracted the children who proceeded to only watch the show about 47 percent of the time. The other group, without toys, watched the show 87 percent of the time. However, when the children were tested for how much of the show they remembered and understood, the scores were exactly the same. This led to the conclusion that children with the toys were able to strategically pay

attention to the show while still devoting their attention to the toys for the majority of the time. The strategy was so effective that the children gained no more from increased attention. This study shows that Millennials' brains can discern when to pay attention and when to focus elsewhere, yet still allowing them to be effective learners (Gladwell, 2000).

### *Learning Styles in the Classroom*

The result of all the data produced from these studies is seen in the classroom through the new ways students prefer to learn. Through data analysis of their own surveys as well as meta-analysis of various other studies conducted within student populations, Oblinger (2003) concluded that the Millennials' distinct learning style tends to prefer teamwork, experiential learning, technology, multitasking, independent exploration and goal orientation more so than any previous generation. These learning styles make sense when considering that their brains are actually wired to switch from one activity to the next faster and these students are more involved when they are interacting (with technology or each other).

Current research findings debates, however, whether these styles are strengths or weaknesses. Even with the strengths developed from the surrounding technology, such as multitasking, Prensky (2001) claims these students lack critical thinking skills and have difficulty dedicating time to reflection. This is shown through his data on the hours this generation has spent on interaction versus time on their own: students spend fewer than 5,000 hours of their lives reading, but over 10,000 playing video games and 20,000 watching television. Computer games, email, the Internet, cell phones and instant messaging are integral parts of their lives (Prensky, 2001a).

Black (2010), an education professor, began to notice that her students were not responding to her in ways student cohorts had in the past. This prompted her to conduct interviews with students and fellow professors and staff as well as look at the accumulated past research on the topic of Gen Y characteristics with a focus on their learning processes. She explains, “the gains in technical expertise and informal knowledge may be offset by students' shorter attention spans and lack of depth in learning. Although Gen Y may be adept at obtaining data, many lack the sophistication to understand and evaluate the information they retrieve”(p. 98). Students are likely to lack the skills to analyze or criticize any of the abundant information they receive every day, preventing them from discerning between what is fact and what is fiction or to form their own opinion. (Black, 2010; Oblinger, 2003; Prensky 2001a, b).

Further, the amount of time spent with technology may be limiting the time spent reading or actually being with people. According to the 2003 National Assessment of Educational Progress (NAEP), 37 percent of fourth graders and 26 percent of twelfth graders cannot read at the basic level, yet 86 percent of all American children were computer literate (Bohl, 2009). Bohl adds that the perception of learning has itself actually shifted, in that Gen Y expects to be entertained at all times, including time spent in the classroom. The reasoning behind this assertion is that Gen Y students have come to only want to focus on information that has immediate relevance due to “the fast paced, omnipresent access to data, entertainment and entertaining data that technology created also shaped Gen Y students into expert multitaskers” (p. 9). Bohl (2009) observed these characteristics in her own law school classroom, which catalyzed her to research the technologically saturated world in which her current students have grown up (p. 4).

## Chapter Two:

### 21<sup>st</sup> Century Students in a 20<sup>th</sup> Century Classroom

While Gen Y students may possess a unique set of skills, especially pertaining to technology, the research also shows that technology has created a great imbalance between the student's desires and expectations of education and what they are receiving (Black, 2010; Oblinger 2003; Rickers, 2009; Westermann, 2006-7). Additionally there is a generational gap between the majority of the teachers and the students (Westerman, 2006-7). The issue needing to be highlighted is that these "digital immigrants" are the ones teaching the "digital natives", yet these two groups speak a different language.

#### *The Gap between Digital Immigrants and Digital Natives*

Jukes and Dosaj (2010) are authors who are a part of The 21<sup>st</sup> Century Fluency Project. This project investigates the influences the past decade has had on today's generation. Jukes and Dosaj (2010) wrote the book, "Understanding Digital Kids: Teaching & Learning in the New Digital Landscape", in order to help teachers and educators adapt to teaching in a technology-saturated world by providing them with information resulting from the Fluency Project. They argue that the foundation of this gap being discussed is that, unlike digital immigrants, digital natives use what they termed "twitch speed", giving them "instantaneous access to information, goods and services at the click of a mouse" (p. 7). They continue to outline what they, along with other researchers have found, to be the most notable gaps, or differences, between these two groups: digital natives prefer to receive information quickly; parallel process information; learn from pictures and video rather than text; have random access to

information, such as a hyperlink style web page allows; and interact with others while learning; receive instant gratification and learn what is not only relevant, but also fun. In comparison, the list of preferences of the digital immigrants is as follows: digital immigrants prefer to receive information slowly; singular process; learn from text rather than pictures and video; prefer linear information rather than hyperlinks; prefer to work independently; prefer deferred gratification; and learn what is on the curriculum guide and the test. While these lists may be generalizations, they are preferences that have been shown in research by Jukes and Dosaj (2010), and many other researchers (many listed in this paper), that broadly define, yet still accurately, the characteristics of these two groups.

Describing this gap, Oblinger (2003) explains that the majority of teachers represent generations other than Generation Y. In addition to the difference in generation, there also exists a difference in backgrounds and cultural experiences (Black, 2010, p. 93). Teachers' perception of school is very likely to be different from a current student's experience in the classroom. At a session of the 2002 National Learning Infrastructure Initiative annual meeting, two students were asked: "What is the most difficult thing about being a student these days?" Both answered: "Having to sit through a class lecture without being able to check e-mail, surf the Web, or listen to music." In contrast, a faculty member responded, "I would have answered calculus." (Barone, 2002, p.64). In the past, it was expected that a student would conduct his or her own academic work quietly with paper, pencils, and books in the school libraries. However, for Millennials, that approach no longer coincides with their busy, social, technology saturated lives. Rickers (2009) finds that Millennials overwhelmingly seek group work, the

use of multimedia for knowledge gain, all the while consuming a variety of coffee and energy drinks.

### *Evolving the Classroom*

Changing the educational environment to suit the needs of today's students is not the answer for everyone, however. Based on surveys and interview research, many teachers hold the belief that they should have the power to decide how the students will learn and actually fear losing control of the classroom if they try and switch their methodology (Carlson, 2005). It is a possibility that by making everything faster and interactive, the students will be missing out on learning how to think or contemplate on their own. Still, others in the field of education believe that these students who are so connected to technology may be unaware of the exact ways in which this use of multimedia is affecting their gathering and perception of knowledge as well as their literacy. What some believe should be emphasized instead is the development of critical thinking skills as well as the development of literacy (Barnes, Marateo, and Ferris, 2007).

Undoubtedly, the job of a teacher in today's classroom is immensely challenging. Nevertheless, despite the validity of these arguments, without engagement, nothing can be effectively taught or learned, including literacy and critical thinking (Garner, 2010). Researchers are joined by others in the education field in the emphasis on promoting classrooms with a greater focus on student engagement. Students themselves have shown a desire for an active learning experience. Oblinger and Hagner (2005) observe that the current students express a need for more varied forms of communication and report being easily bored with traditional learning methods. Glenn (2000) notes that Gen Yers need self-directed learning opportunities, interactive environments, multiple forms of

feedback, and assignment choices that use different resources to create personally meaningful learning experiences, while Hay (2000) finds that Gen Yers want more hands-on, inquiry-based approaches to learning and are less willing simply to absorb what is put before them.

### *Disengagement*

Without that “something more” provided for Gen Y students in schools, the education world is vulnerable to disinterested, over-confident, unsatisfied students. Larson (2000), a current educational psychologist, found that during school, adolescents report a low level of intrinsic motivation as well as high rates of boredom and difficulty concentrating. Baurerlein (2009) identifies this reality as one of education’s biggest issues with the name the “disengagement factor”. This disengagement factor has been well documented throughout the past decade in polls, surveys, and studies. “Polls show [students] liking school less, with each passing year...they don’t find the curriculum interesting or challenging enough to really engage their energy. The Public Agenda survey found that 65% of high school students admitted they weren’t trying very hard, and 75% said they’d try harder if pushed” (Howe & Strauss, 2000, p. 162). Without engagement, there is no motivation, persistence, or even school completion (McGlynn, 2008).

Research reveals two predominant reasons for student disengagement. The *person-environment fit* theory, presented by Edwards, Caplan, and Harrison (1998), presents one possible explanation. This theory states that a person is optimally motivated and satisfied when the environment meets his or her needs. According to the *person-environment fit* theory, behavior, motivation, and mental health are directly influenced by



the fit of the students' individual characteristics and the characteristics of the surrounding environment. Most importantly, this theory states that individuals are predicted to do poorly or lack motivation if they are in social environments that do not meet their needs. For the sake of this paper, "needs" include technological stimuli, speed, and multitasking. Taking this theory into consideration, if the classroom is stuck in the 20<sup>th</sup> century (Black, 2010), then it cannot match its current students' needs, making it evermore challenging for students to connect and become motivated.

Another possible reason for disengagement is presented by Prensky (2001). He believes traditional schooling provides very few opportunities for interaction and/or student involvement in the classroom. He cites one study showing that students in class are limited to asking questions every 10 hours. Thus, Prensky (2001) concludes, it "isn't that Digital Natives can't pay attention, it's that they choose not to" (p. 4). The school environment is so separate from that of the students' entertaining and interactive environment social environment that it becomes almost irrelevant. In order to address this disparity, attention of educators should first be paid to the individuals and their immediate surrounding social contexts, and then consider their developmental environments, such as the school environment, to see if their needs are being met or thwarted (Ryan & Deci, 2000).

In a study conducted on students from twenty Baltimore schools, Alexander, Entwisle, and Kabbani (2001) collected data in an attempt to understand the factors most influencing dropout rates. Their study found that engagement behaviors, even starting from first grade, were more positively correlated to future dropout rates than academic scores. Alexander et al. found that retention in grade school also showed a strong

relationship to dropout rates, particularly when it occurred at the middle school level. The earlier the disengagement and lost motivation, the quicker the students were found to drop out of school. They concluded that dropping out of high school culminates a long-term process of disengagement from school (Christie, Jolivette, & Nelson, 2007).

It can be argued that in school, students are not receiving the necessary support or opportunity in the context of the classroom to develop individual competence or autonomy—or to keep their attention. There is now a stark contrast to the engagement youths experience in activities outside of school including the arts, miscellaneous hobbies, athletics, and games. Yet, in the process of acquiring academic knowledge and skills, there is no spark to help inspire the students' drive for mastery or even understanding (Cushman, 2010, p. 72). Put simply, the school environment is leaving the students wanting more and disengagement has thus become one of many factors that are leading students to lose the motivation to continue with schooling.

### *Mental Health Considerations*

The rise in Gen Y's mental and psychological diagnoses is another possible cause of disengagement, as revealed in the current literature (Howe & Strauss, 2001; Pope, 2001; Rickers, 2009). As Rickers (2009) documents, there has been a recent rise in the number of today's students given psychiatric medication and identified with mental health issues. The most discussed health issue to date concerns the ever-increasing number of ADHD diagnoses in schools as well as a rise in youth depression and anxiety.

Much of the current research shows more students than ever before have been given ADHD diagnoses. Conner (2011) found that in the United States between the years 1980 and 2007, youth identified with ADHD has increased 8-fold compared to

previous years. Interestingly, a current, very active, debate exists over whether or not this rise in ADHD diagnosis is due to school-related issues or if it, in fact, is primarily a result of genetics and biology.

Some argue that ADHD is in fact, neither over-diagnosed nor related to children's classroom behavior. Research studies claim that the rise in ADHD diagnoses is due to the rise in awareness of the disorder (Ellison, 2003). In addition, some doctors are emphasizing that ADHD is a biological-related disorder, not a circumstantial one. For example there is evidence showing that once a family member is diagnosed with ADHD, there is a 25% to 35% probability that any other family member also has ADHD. Further, in twin studies, if one twin is diagnosed, there is a 90% chance the other twin will also have the disorder (ADHD Center, 2012).

Yet, despite the attempt to argue that no correlation exists between school and ADHD diagnosis, the evidence suggesting otherwise is overwhelming. A study on ADHD diagnosis conducted by Sibley et al. (2012) revealed that many of the ADHD symptoms are seen only in the school setting. Notably, children identified with the disorder decrease to 40.2% when the teacher reports are not considered in the diagnosis. Thus, this study reveals that when the teacher reports on a child's behavior are not considered when diagnosing a child, there is a much higher chance they will not be diagnosed; the majority of ADHD symptoms present themselves in the classroom, yet disappear once school has ended. This is not saying that teachers are falsely reporting or trying to put their students on ADHD medicine. Instead, this study shows that ADHD symptoms are ones that are common in the school settings today and may be more

accurately a list of a restless, bored, under-activated student and not a diagnosable disorder.

This finding is further supported by Dr. Peter Gray, a psychologist who strongly believes that misconduct in schools translates into an ADHD diagnoses. He writes that having ADHD means a failure of that student to act accordingly under the conditions of standard schooling (Gray, 2010). He also notes that most diagnoses begin from teacher recommendations. He continues to point out that the majority of ADHD diagnosis criteria (motor restlessness, lack of concentration and impulsiveness) can also be considered consequences of bored and uninspired students. Even further, while controversial, he argues that it is due to the ever-increasing restrictive nature of school that these diagnoses continue to rise. And, perhaps less controversial, he pinpoints the ever-increasing focus on standardized testing as one of the main issues that has caused the removal of creativity in both students and teachers (Gray)). Putting this issue into perspective, Howe and Strauss (2000) make an almost comical reference to the grand difference between “Nowadays Dennis the Menace would be on Ritalin, Charlie Brown on Prozac”(Howe & Strauss, p. 154). If it requires medication to make a substantial number of students sit through class, it could be argued that there is something wrong with the education system and not the child.

Gen Y, and specifically its teenagers, are experiencing documented jarringly high levels of anxiety disorders, depression, substance abuse, suicide, poor physical health, and disengagement from learning (Pope, 2011). Pope believes this is related to academic stress as a consequence of being overscheduled and over-pressured. She also notes that many students are, what she has named, "doing school" –not engaging in depth with

material or even enjoying the activities that they do, and instead just finding ways to pass the tests and graduate and arguably more so than any other generation. If the school environment fit its students, then students wouldn't have to "do school" by completing work and passing tests, rather they would become an invested part of school, and, in fact, the main part of school, as they should be.

However, it is critical to acknowledge that schools and teachers are not entirely at fault. In fact, because many schools are tied to standardized tests and curriculums, adapting a classroom setting to meet the needs of its students is overwhelming challenging (Palo Alto Weekly, 2005). Further, Black (2010) makes the salient point that what qualifies teaching as "good" hasn't changed. "In a sense, little has changed: good teaching has always focused on students' needs" (p. 100). However, he continues to note that the combination of the new generation and new digital tools is having an impact on how students learn (and perhaps more importantly, *want* to learn) in the classroom. It is now a new challenge for the teachers to figure out how to engage the students and keep them intrigued. What needs to change is how the teachers and education system approach learning and their students. Today's teachers should learn to communicate in the language and style of their students. Prensky (2001) believes that perhaps a faster paced curriculum that is more parallel with the outside world along with the growing technology could be some first steps in changing the curriculum. Teachers and students need to find ways to speak the same language.

## **Chapter Three:**

### **Bridging the Gap**

Despite the grand challenge the current generation gap between students and the classroom presents, much research has been done to consider ways to bridge it. White and Kiegaldi (2011) explain that it is through teacher-student understanding that learning is enhanced. In order to do this, White and Kiegaldi (2011) have found using activities involving learner–learner and learner–teacher interaction, such as one-to-one student discussion, structured discussions, and small group work, to be most effective. This relationship can also be strengthened if the teachers take the time to explain the reason behind what is being taught. Gen Yers hesitate to pay attention if they don't see a correlation between an activity and their lives. If their teacher provides real-world connections and evidence of importance, they are more likely to become engaged (Westerman 2006-7).

Building further on teacher-student understanding, teachers may find it beneficial to capitalize on talents students are already bringing to the classroom (McGlynn 2008). The teacher-driven and content-centered style should be replaced by a learner-centered and process-driven methodology. A focus on the students' skills, interests, and learning styles creates a classroom that is learner centered and thus more engaging for everyone involved.

“How People Learn: Brain, Mind, Experience, and School” is the result of the work of two committees: the Commission on Behavioral and Social Sciences and Education of the National Research Council (NRC). The original volume, published in

April 1999, was the product of a 2-year study conducted by the Committee on Developments in the Science of Learning. Then the Committee on Learning Research and Educational Practice was formed to apply what the study found to actual practice in the classroom and offer suggestions for application in the field. This book is an example of how education and science can be bridged as well as proof that the learner-centered learning and education that this paper is highlighting is also in line with the current research and development in the field of educational psychology. In this book, the authors highlight the recent convergence of the three fields of psychology, education, and neuroscience in the research understanding learning and development (The National Academies, 2000).

A main finding discussed in “How People Learn” is that “students come to the classroom with preconceptions about how the world works” (The National Academies, 2000, p. 24). The authors explain, using the results of the study, that when students’ initial understanding and perception of the world is not engaged, challenged, or addressed, they may fail to grasp the new concepts and information that are taught, or they “may learn them for purposes of a test but revert to their preconceptions outside the classroom”(p. 24). These “preconceptions” mentioned are especially prevalent for 21<sup>st</sup> century students whose world is shaped by constant innovation and technology.

Implementing technology into the curriculum is one way that some schools have already started to move towards a student-centered learning process. Presented are some examples of this integration. For example, Brooklyn College's library now has a MySpace page that library staff uses instead of email to communicate with students, including announcements about events, workshops, and work opportunities (Carlson

2006). Michael Kearns, a professor of computer and information science at the University of Pennsylvania, has students create their own Facebook profiles and investigate the connections among their peers, which leads them to deep questions about how social networks tend to occur around a small number of privileged members (Read, 2004). The incorporation of e-portfolios in the Expository Writing Program at the University of Washington may serve as another positive example. Students create online portfolios that illustrate and reflect upon their fulfillment of key learning objectives (Lane, 2006). A program created for high schoolers is the *Valley of the Shadow* archive (<http://www.iath.virginia.edu/vshadow2/>). This program allows students to make their own discoveries and draw conclusions about the Civil War with original documents (Oblinger & Oblinger, 2005). By incorporating the students' pre-existing technological savvy, educators can tap into the brains and interests of their students while ensuring focused learning and positive outcomes.

Key aspects of Gen Y's learning styles, when applied to classroom activities, may allow the classroom to become student-centered. Many authors provide lists of possibilities which would help to create a student-centered classroom, including interactive activities, access to teacher's experience, negotiation of their learning activities, allowing students to multi-task, providing tasks that allow individuality, speed, and work that is constantly made relevant to their lives (McGlynn, 2008; Westerman, 2006-7; White & Kiegaldi, 2011). However, as Oblinger and Oblinger (2005), argue schools should not assume that merely adding technology is enough. They write, "They don't think in terms of technology; they think in terms of the activity technology enables. In general, the Net Gen views the Internet as an access tool—a medium for distribution of



resources rather than a resource with limitations”(2.10). Thus, it is the kind of freedom and activities technology enables that would make the difference. With all of these considerations implemented, the school environment would not only become more learner centered, but also there would be a shift from the current dependent style of learning to more independent learning (Garner, 2010). As the research suggests, this is may be the change in our methodology of learning Gen Yers need in order to feel more involved and fulfilled.

## **Chapter Four:**

### **Implications for School Counselors**

If school counselors can understand how Gen Y individuals navigate the world, stronger and more meaningful connections between students and counselor would be possible. Today's counselor educators have realized that members of the current generation, who grew up with texting, constant television, e-mails, and computers struggle, specifically in the area of person-to-person interaction. Despite the fact that there are many external conditions that may either limit or enhance technological use, all Millennial students have considerable exposure to technology and technological stimuli, even if it isn't coming from their own households. This exposure comes from schools, friends, and shared devices among family members (Becker, 2000; & Yardi & Bruckman, 2012). As a consequence, counselor educators are seeing a new need to focus on developing the skill of "being present" more than ever before (*Counseling Today*, 2009).

In another *Counseling Today* article written by professors Jeannine Studer and Blanche O'Bannon (2012), more suggestions are presented for counseling Gen Y students. These psychologists focus on Gen Yers steady stream of scheduled activities that are constantly monitored. It is important to note that these psychologists have found that many Gen Yers are also not generally the ones choosing their own activities and are instead being told how to spend their time by parents. Another large goal in participating in activities is in order to fill one's resume in order to be competitive with peers.

Strategies that could benefit these individuals, especially when directions are not given in certain situations, are goal-setting activities, discussing expectations of the individual versus others, and helping the individual identify resources and networks around him or her (*Counseling Today* 2012). They further add that putting Gen Y students in groups for therapy will allow them to act as resources for each other as well as providing the clients with an empathetic and understanding environment. The new awareness needed in counseling today's youth is the acknowledgement that many young individuals have not had the chance to create their own goals nor have they really had the opportunity to explore their identity in the midst of all the parental and external pressure to be competitive with their peers as well as excel in everything they do. For counselors, then, the counseling room has the opportunity to become a place where students can feel accepted and free to discover who they are and be freed of the pressure to compete.

#### *Gen Y's Potential Future Challenges*

In focusing specifically on the challenges Gen Y is more likely to face as a cohort, Sue Fleschner, a generational psychologist, believes the challenges and concerns of Generation Y fall into two primary categories: Work and relationships (Fleschner, 2008). Gen Y students have grown up with parents reinforcing the idea that anything is possible and sheltering their children from failure, negative experiences, and challenging experiences (Hansen, 2003). Even further, it has been documented that this generation is consistently rewarded for everything that happens to them from getting paid for A's in school to turning 16 years old. "We have become a society that celebrates mediocrity. Little effort is grandly awarded. In so doing, we have set up an unrealistic scenario of adult life" (Fleschner, 2008, p.144). This unrealistic scenario has large potential to hurt

Gen Y students who create idealistic future goals for themselves and consequently face rejection they have no skills to handle.

Fleschner's (2008) answer to this potential challenge to Gen Y individuals is Reality-based therapy. Reality-based therapy would allow the counselor to help the student develop a more realistic understanding of their world. Hopefully, as a consequence, the counselor could then help the student develop strategies and make goals that are meaningful and realistic to their surrounding environment (Fleschner). Fleschner also advocates for counselors to help Gen Y clients develop realistic and attainable goals as well as promote the development of skills to deal with rejection and failures. Nesbit (2009) also supports the use of Reality Therapy for Gen Y clients. She explains that this form of therapy would be most beneficial for those seeking help within this group of students because it matches the way Gen Y has been raised overall—a world where they see many options and a world they see as manipulatable.

#### *Addressing the Rising Mental Health Issues*

As mentioned earlier, yet another unique and growing issue facing Gen Y is the growing number of depressed and over-stressed students. As psychologists Benton, Roberston, Tseng, Bewton and Bentron (2003) show, students in counseling today are presenting with more problems, including more than ever severe anxiety, depression, suicidal ideation, and even personality disorders. One psychologist who offers a thoughtful therapeutic solution to this issue is Shaznin Daruwalla (2012). Daruwalla argues that adding Mindfulness-based therapy would help address these particular concerns of Gen Y. She explains that due to the increased severity of the presenting concerns of today's youth in the counseling centers, a stress-reduction program with

psycho-education or skill-based focus may not suffice. Instead, she advocates for a program that targets stress-related symptoms and provides a life philosophy that shapes one's outlook towards life may be more suited for the Millennial college student (Daruwalla, 2012). It is here that Daruwalla (2012) explains her reasoning for supporting mindfulness therapy particularly in counseling Gen Y students. She asserts that using mindfulness strategies would help give students coping skills for the stress and therefore lower the presence of depression and stress-related illnesses. She even notes that mindfulness practices have been shown to include benefits outside of stress management including personal growth and development (Daruwalla, 2012).

### *Multicultural Competence*

If every counselor, under ACA, is required to have multicultural competence, that would include a knowledge and awareness of generational differences. Lynne Shallcross, a writer for *Counseling Today*, touches on this point when she explains, "If ACA calls [counselors] to be multiculturally competent and the definition of culture provided by ACA goes beyond race and ethnicity...In this case, that would mean generational affiliation and the values, beliefs and worldviews that go with each generation"(2009). However, it is just as important to note that "understanding a culture" does not provide all the answers. Every member of Gen Y is also an individual client with a new and unique story. Each client will have his or her own way of defining what it means to be "Gen Y". But it will make it easier for the client to connect to his or her therapist if their therapist has an existing understanding of Gen Y. A previous understanding of the context of the client will provide a space for the client to feel understood and comfortable.

## **Chapter Five:**

### **Conclusions**

The needs and learning styles of generation Y students are the impetus for change and evolution in our educational system. The success of current and future students relies on the ability of the classroom to adjust to this new breed of learner. It is not that teachers need to abdicate their roles as leaders or authority figures, or as imparters of knowledge. Rather, in addition to these traditional roles, teachers must take on a very important new role as guide or mentor.

The digital age has provided instant access to a vast and ever growing amount of information, the teacher becomes more important as a guide to the assimilation and organization of this information, than as a disseminator. In addition, teachers as mentors will allow for the development of meaningful relationships with students. These relationships, as part of an adapted classroom environment, are crucial if the goal is to replace disinterested, unsatisfied students with those who are deeply engaged, eager, happy--and successful.

If teachers are expected to become mentors and guides of our students, shouldn't they also be expected to become well versed in the latest research concerning the development and psychology of those students? Education is a business; for the teachers to keep the students involved and invested in their education, they need to understand how to sell their product. Teachers and schools need to realize they are competing for students' attention and buy-in. If the school environment is so different from the

student's everyday environment, there is no evident reason the student even needs to be invested in his/her education.

There is no way that the same educational model developed during the Industrial Revolution can still be adequate for students living in the 21<sup>st</sup> century. Just as the times change, the student population changes. So why doesn't our classroom methodology change? It appears as though the world is evolving—technology, travel, and culture are all evolving—yet the world of education is standing still.

Counselors in today's educational settings (both secondary and higher education) have a more prominent role. Not only do the counselors have to help these students try and cope with the lack of motivation due to the disconnect between their classrooms and their realities, but they also have to help bridge the distance between the teachers and students. Counselors are student advocates and are therefore responsible for helping schools fit the needs of their students. For example, a counselor can lead Teacher Development sessions where the latest research is brought to the teachers' attention. The counselors can also bring to the school lessons to show the students how important education is to their lives and futures, despite the current disconnect they feel. Motivation is a huge part that is missing more and more in students' educational success.

Understanding this generation's defining and radically different characteristics is necessary to allow for the thoughtful development of a learning environment geared toward its evolved style of learning. After all, students and their brains have not remained stagnant through the passing of generations. Neither should their classrooms.

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## VITA

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