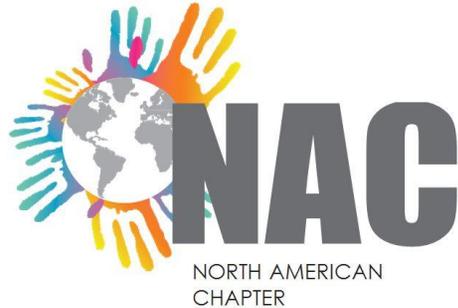


# **My Future: The Tool For Clear Vision In Career Choices**

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## **Abstract**

My Future is an extension of the Degree Compass model designed to guide students in choosing appropriate courses, while My Future focuses on the selection of successful college majors and career choices. This is especially true for those students from underserved and diverse groups and cultural categories. Austin Peay State University seeks to attract students from various backgrounds; ethnic groups and culturally diverse experiences. Essential to the process of recruitment and retention of students with diverse ethnic and cultural backgrounds, is ensuring they have opportunities to be successful, graduate with a degree, and have career ready skills. My Future was intended to allow students an opportunity to receive helpful information about their individual needs and experiences and to strengthen the advisement process as a means of ensuring degree completion, especially for underserved and diverse groups. My Future intentionally targets diverse populations to ensure career readiness directed toward clear career pathways.

## **My Future: The Tool For Clear Vision In Career Choices**

Austin Peay State University has received national attention for introducing the Degree Compass model, which is a novel design conceptualized and implemented by Dr. Tristan Denley, who, at the time of its conception and implementation, was the Provost and Vice President for Academic Affairs at Austin Peay State University in Clarksville, Tennessee. Degree Compass was such a powerful predictive instrument, that the rights to the Degree Compass Predictive Model have since been purchased by the Desire to Learn (D2L) company. Since then, an additional information system called My Future was developed and implemented at Austin Peay State University. It was readily recognized throughout the university community that the advisement of students in taking the proper courses based on their planned degree and graduation date did not adequately serve the needs of all students, especially those groups who were traditionally from a host of diverse cultural and ethnic backgrounds. This was due primarily to their fear of asking for assistance and their inability to relate advisement to their personal and professional aspirations. The introduction and implementation of the My Futures Model was an attempt to assist all students, but especially the underserved populations from the various ethnic and cultural groups of our highly diverse students, in choosing a degree program that was aligned to the career paths that would yield them success and satisfaction. My Future model is built upon on the predictive analytics used by Degree Compass to predict the viable majors where each student is most likely to be academically successful. The program's designer, Former APSU Provost Dr. Tristan Denley said, "This new tool will help students make informed choices about the program that they follow" (Shemberger, 2012, p. 1).

Presently, this system is unique to Austin Peay State University. Utilizing data-mining techniques and algorithms, the My Future model serves a two-fold purpose:

- a) For those students who have already identified a major and a degree path, the program provides information on their concentration choices and the best pathways for degree completion, in addition to possible career paths and the job availability for that specific major.
- b) For those students who have not selected a major or a degree pathway, or who may be considering a change to their degree or major, the program offers a listing of majors predicted to provide the students with the most academically successful pathway to completion and a job or career opportunities after graduation. Similarly, predictive information is offered about concentration choices, degree pathways, prospective paths for careers, and the availability of opportunities in the fields or the specific areas students have selected to follow.

Students have the ability to access the My Future Tool from the Austin Peay State University Office of Admissions web page. The subsequent screens provide prompts to allow students to enter at least three scores from their high school experience, including their high school Grade Point Average (GPA), as well as other scores to include those from their American College Testing (ACT) college readiness standardized assessment or their scores from the Scholastic Aptitude Test (SAT), which is also a standardized test for college admissions. Once they have entered the appropriate scores, they are prompted to 'submit' and are then directed to a portion of the web site entitled Macro Majors. The Macro Majors screen contains a variety of majors marked with stars to indicate their rank order, highest to lowest, for the choices provided the students for their consideration. Within the Macro Majors area, students are able to locate specific micro majors as well as various concentrations from which students are able to choose

areas in which they are most interested, along with a first year degree plan and departmental information for any required or desired follow-up.

The website provides a plethora of embedded links to the U.S. Bureau of Labor Statistics, which provides students an opportunity for researching the careers resulting from the program's suggested majors (Shemberger, 2012). Additional links to the Occupational Information Network (O\*NET), a full-access, online version of the occupational network database published by the U.S Department of Labor provides students with endless search options pertaining to specific career choices and interests (Shemberger, 2012; Austin Peay State University, 2016b).

The authors of this paper will extend the idea to gauge patterns of usage and students' perceptions of effectiveness, impact, and efficiency regarding the use of the program, in addition to reporting statistics generated by demographic usage for disaggregated student groups. To assist in the My Future Program endeavor, Austin Peay State University was awarded grant funding for the program in the amount of \$100,000.00 through EDUCAUSE's Next Generation Learning Challenges to expand and enhance the My Future System (Austin Peay State University, 2016a).

### **Review of the Literature**

Colleges and universities are increasingly charged with the responsibility of implementing ways to promote and ensure student success. This often emerges from internal (institutional) and external (governmental/general public) expectations and some level of obligation to gauge their success based upon the number of graduates and successful transition of students to viable careers. Anxiety and stress are growing amongst students due partly to issues dealing with choice of career, the amount of time needed to wait before choosing a career path, and a lack of support for student career option exploration. Students have reported

encouragement to achieve foreclosure in career path preparation yet have also reported a lack of direction in knowing how to attain these goals (Cizek & Burg, 2006). In order to fulfill the mission of preparing and transitioning students into specific careers, career choice exploration must be available to students within individual colleges and universities (Michelozzi, Surrell, & Cobe, 2004; Levin, Cox, Cerven, & Haberler, 2010). In order to present students with valuable resources and information regarding career choices, we must first understand the influences on the student in regard to career exploration.

Stevenson, Buchanan, & Sharpe (2006) proposed that several factors contribute to student success: a) college preparation; b) transition or orientation programs; c) academic rigor; and d) academic and social support systems, among others. In particular, they noted that because faculty determine the extent to which mastery occurs in their courses, that faculty is vital to student success. Likewise, they indicated that student success is ultimately secured by their own persistence toward graduation. Students' failure of persistence to graduate can be linked to faulty academic advisement, causing students to be placed in courses beyond their base of knowledge and academic abilities. These findings would indicate that it is extremely important for faculty to interact with students and new technologies that are developed in order for students to make good choices of college courses and career aspirations.

Developing a well-defined role in society helps individuals establish a favorable sense of identity throughout life. Such is true in the context of adolescent development. During this stage of life, the pursuit of identity emerges as the most common goal amongst peers. Adolescent and college-aged students begin to search for their significant place in society. This need to belong extends the parameters of traditional development as society evolves. As our society evolves in the technical realm, establishing this identity has become increasingly difficult

for adolescents and college students. Being stuck between childhood and adulthood, many college students find themselves longing to belong in society (Strom, & Strom, 2009).

James Marcia is perhaps best known for his extensive research and writings on psychological development, with specific attention focused on adolescent psychosocial development and lifespan identity development. Erik H. Erikson (1956 & 1959) had suggested that the normative conflict occurring in adolescence is the opposition between identity achievement and identity confusion. Marcia elaborated on Erikson's ideas by suggesting this stage consists neither of identity resolution nor identity confusion as Erikson claimed, but is better understood as the extent to which one has both explored and committed to an identity in a variety of life domains including politics, occupation, religion, intimate relationships, friendships, and gender roles. Marcia (1966) suggested that the two significantly crucial areas in which the adolescent must make some seriously crucial commitments, are ideology and occupation.

His theory of identity achievement promotes the belief that there are two distinct parts contributing to the achievement of adolescent identity. First, there is the belief that there is a time of choosing or crisis. Secondly, Marcia believed that adolescents must make a commitment and this commitment is the essence of the theory. Without commitment, the Identity Achievement theory cannot be fulfilled. Marcia defined a crisis as that time of upheaval in the life of an adolescent or young adult where old values or choices are being reexamined and new alternatives are simultaneously being explored. Marcia contended that there are certain times and phases in the life of every adolescent or young adult when the individual appears to be actively engaged in the process of choosing among the plethora of beliefs with which they are

bombarded. They are simultaneously being faced with countless counter intuitive choices concerning the numerous occupational choices they encounter.

Career development during the adolescent years has been recognized as an important, even crucial stage of development by numerous renowned theorists for many years (Wallace-Broschius, Serafica, & Osipow, 1994; Bragg, 2007; Bragg & Durham, 2012). Career development is intimately related to self-concept (Super 1957). Erik Erickson (1959) indicated that forming an occupational identity is critical to resolving the identity crisis during adolescence. In 1958, Erikson proposed his Psychosocial Development Stage Theory, which also included his model of adolescent development. This model has proven highly relevant to current concepts of career educational development. Erickson (1980) supported the belief that adolescence was a period when the integration of identity elements were postponed with little estimate about the length of the postponement. According to Stevens (1983), “adolescents are confronted by the need to re-establish boundaries for themselves and to do this in the face of an often potentially hostile world” (pp. 48-50). Quite often, this poses a serious and challenging situation for adolescents. This is due primarily to the fact that they are being expected to make commitments prior to the formation of the necessary role identities. At this juncture, they enter what is termed as the state of identity confusion. However, society has made allowances for the adolescents while they are trying to find themselves and establish a sense of being or identity. According to Stevens (1983), this phase was viewed by Erikson as the Moratorium State. The individual must cope simultaneously with coming to terms with societal demands, earning respect from peers, finding guidance, and fulfilling the desire to make something work. The maturing individual seeks both a place in the economic structure and the governing philosophy

of life. According to Erikson (1956, 1959, & 1980) and Stevens (1983), the lack of special aptitudes, makes adapting to adult society more difficult.

Erikson is credited with coining the term Identity Crisis. Each stage presented in Erikson's Psychosocial Development Stage Theory has its own unique form of crisis. According to Erikson (1959, 1980) and Stevens (1983), the transition from childhood to adulthood is marked by what is termed as the Identity Crisis. This passage is necessary because as the individual grows through infancy and into childhood, numerous identifications are formed and reformed. However, throughout all of these identification phases, the individual does not form their need for an identity in their early formative years. Erikson (1980) proposed that in our industrial society, identity formation tends to take a relatively long time. This is due to the fact that in order for individuals to acquire the necessary skills needed for the tasks required of adulthood and specifically those necessary for functioning in our technological world, no time limit can be placed on this phase of development. It doesn't automatically occur at a specific age. It may occur at eighteen, twenty, twenty-five or later. Stevens (1983) suggested that Erikson provided a general rule of thumb for our society which would put the end somewhere in one's twenties. This event then becomes a significant turning point in human development which seems to be the reconciliation between the individual or person one has become and the person that society has come to expect of the individual. This emerging sense of self will be established by combining past experiences with anticipations of the future. College students are faced with the need to re-establish themselves in the world. This is often challenging since commitments are being expected by society before particular identity roles have formed.

College students are faced with the need to re-establish themselves in the world. This is often challenging since commitments are being asked for before particular identity roles have

formed. At this point, one is in a state of identity confusion, but society normally makes allowances for youth to find themselves and this state is called the moratorium according to Erickson (1956).

Traditionally, education has been the instrument of society, which initiates the young into its established structures and institutions. In recent years this function of education is no longer sufficient. A new concept of career exploration has become a primary issue in education. Generally, this concept is based on the recognition that change is a major factor in modern life and individuals must be prepared for changes as well as their primary and secondary roles in adult life. Work is viewed as an expectation for everyone, sometimes from the early formative years into the later years of adult life. With societal emphasis and expectations regarding work, career advisement and career exploration programs have been increasingly utilized in an attempt to increase student awareness of the choices and decisions they will be facing throughout their lifetime (Caminillo & Adelman, 2001; Espinoza, 2010; Kolenovic, Linderman, & Karp, 2013).

Beyond the societal expectations for education, there is an unstated, yet clearly understood and accepted universal ideology regarding our professional and ethical obligations to the students, especially those of underserved populations, enrolled in our universities. Student expenditures for college tuition and degree completion are increasing at an alarming rate throughout the country (American Institutes for Research, 2014). Large numbers of college students never finish their programs or college degrees (Complete College America, 2014). That is the focus of some states, like Tennessee, which have passed laws and implemented policies that essentially tie state funding to the public universities in the state to student college and degree completion rate (Kelderman, 2012). Kelderman (2012) and Lent (2013) emphasized that prior to the passage of the 2010 law in Tennessee that tied funding at public universities to the

completion rate for students, colleges were scurrying around trying to fill seats in classrooms in an effort to raise their level of state apportionments for higher education. The old formula was based entirely on the number of students enrolled in the fall and spring terms of each school year. Kelderman (2012) noted that since the passage of the 2010 law in Tennessee, the state universities “stand to lose state money if students don’t complete the courses they enroll in, as well as the degrees they are seeking” (p. 1). Kelderman (2012) also stated that, “Tennessee became the first state to appropriate nearly all the state’s tax dollars for higher education based on institutional outcomes, such as credit completions and graduation rates” (p. 1). With the increased emphasis on degree completion and student retention, APSU as well as a number of other universities are starting to review their policies and approaches to the advisement of students throughout their program. Austin Peay State University has also begun engineering the concept of increased degree completion through course advisement tools as well as concentrating on tying degree completion to a well-selected and suited career path for each student.

Another alarming area of concern for all universities, especially for Austin Peay State University, is that a large population of individuals completes a degree without ever finding their true area of interest. Even worse are the numbers of college completers who cannot find gainful employment in their degree field. This problem can be attributed in part to poor individual choices by the students, but also to either poor or nonexistent advisement which many college students must have to be successful. The reasons why so many students fail to complete their degrees, fail to choose a career path that is suited to their talents and interests as well as what the job market has to offer them in the areas they have selected, are endless. However, no longer can universities stand on the sidelines and allow students to continue making poor choices, which are often based on information or coaching from fellow students about the degree path they select or

is simply a matter of searching until they find a degree program that allows them to just get through college with some kind of degree (Kotamraju & Blackman, 2011). Kelderman (2012) stated that the new law in Tennessee and the policies adopted and implemented as a result of the new law, are “already changing how colleges work to retain students and produce graduates, with several institutions overhauling their approach to remedial education, for example” (p. 1). Kelderman (2012) also noted that university faculty members in the various state institutions are already experiencing the pressure to make changes to ensure that students are successful, not only in their courses but also in degree completion categories.

Programs designed to target the various student populations and assist them in remaining focused and working toward degree completion are usually very successful. Shultz, Colton, and Colton (2001) stated that these proactive intervention programs “have been found to create powerful academic and retention outcomes” (p. 211). They further stated that “proactive programs do not leave success to chance. They require students to participate in program activities that are structured to help students avoid the social and academic behaviors and pitfalls that lead to withdrawal” (Shultz et al., 2001, p. 211). The traditional advisement model, according to Shultz et al. (2001), is often sterile and unproductive and leads to forgettable experiences and unforgettable tragedy for students in the areas of degree completion and wise career path selection. This yields a vacuum which is then filled with highly suspect reactive programs and efforts with tragically unproductive consequences for students.

The My Future Program has the potential to be a highly productive model for career path advisement. When used in coordination with the Degree Compass Advisement Model, My Futures program stands to garner countless benefits could be enormous for students, to include higher success in their classes, higher graduation rates, and greater success in choosing a career

path that yields job opportunities and higher career satisfaction once they leave college with that earned degree. According to Holly Morris (2014) who is associated with the EDUCAUSE initiative, knowing that students who adhere to a selected major are more likely to continue studies and ultimately to graduate as a result of them utilizing the existing My Future tool is encouraging. The My Future tool appears to support them in thoughtfully choosing a major that will be a good fit and will empower the students with information to guide their choice of majors and the alignment of those choices with their academic strengths (Austin Peay State University, 2014).

### **Research Questions**

The current study sought to explore student usage and opinion of the My Future Career Choice Tool addition to the existing Degree Compass tool. The study explores four separate research questions in relation to the demographic information of gender, ethnicity, and age.

1. Who is using the My Future tool?
2. Who has selected a major, concentration, or career path based on recommendations from the My Future tool?
3. Who feels that My Future accurately predicts path satisfaction rate?
4. Who would suggest using the My Future tool to a friend?

### **Data Collection and Methodology**

Data for the current study was collected from a survey distributed via e-mail to the undergraduate student population at Austin Peay State University in the fall of 2013. The survey was created by Dr. Anthony Sanders & Dr. Leah Whitten and reviewed by Dr. Gary Stewart. The survey consisted of a total of 12 items. Nine of the questions dealt with the usage of the My Future tool while three of the questions asked for demographic information. The

survey was peer checked amongst faculty at the university as well as by the creator of the My Future Tool. The Flesch-Kincaid Readability Test was used to determine the survey to be at an appropriate reading level for entering college freshmen.

The University undergraduate population consisted of 8841 students. Surveys were returned, via Campus Lab's Baseline program, from 1175 of these students. The survey sample size constituted analyzed results reported at a 95% confidence level with a confidence interval of 4. An independent samples *t*-test was conducted to assess demographic differences.

## Results

The descriptive results indicated that the majority of students (>63%) were not aware of the My Future Tool prior to the distribution of the survey. An independent samples *t*-test was conducted for each demographic to assess differences in the opinion as to whether or not the My Future tool could be useful in helping students to select majors, concentrations, and career paths in which they would be successful. The result suggested that students of Hispanic descent felt that at a statistically significant level, that the tool could be useful ( $t(1175) = 1.07, p = .0009$ ). This was also the case for students of Asian descent ( $t(1175) = 1.70, p = .0025$ ).

The descriptive results indicated that the majority of students (>74%) have not used the My Future Tool in any capacity. However, of the 26% who reported using the tool, only 13% reported selecting a major, concentration, or career path based on recommendations from the My Future tool. From the reported 13% of students who have made selections based on the tool, a majority (>86%) found the selection to be accurate based on the predictions from the My Future Instrument. Eighty-five (85%) percent of the students who responded that they have used the tool ( $n=144$ ), stated that they would recommend this tool to a friend after utilizing it themselves.

## Discussion

The purpose of this paper was to explore the usage and opinions of The My Future instrument among the population of undergraduate students at Austin Peay State University. Though My Future has been implemented on the campus of APSU, the developmental process of the tool is on-going. This research serves the purpose of aiding in the direction of this developmental process.

Analysis of demographic results suggest that from the students who have actually made a selection of major, concentration, or career path based on the predictions of the My Future instrument, that the majority (>80%) found its prediction to be accurate. This, in itself, appears to be a rather important finding. It suggests that the tool can recommend a satisfying course of action with some degree of accuracy. Often, students of diverse cultures are not made aware of the various tools they could use to become proficient in selection courses and progressing through a viable plan toward an attainable career.

The researchers suggest that the school and owners of the umbrella program Degree Compass, make efforts to advertise the tool throughout the population of its potential users. With the recognized predictive success of the My Future instrument, it appears that greater efforts are warranted to make the instrument available to students and to provide the necessary tutelage and instruction to increase the percentage of student usage across all populations in the university. While the study indicates that students of Hispanic and Asian descent had used the program, even so vast usage was limited. It would appear that 75% of the student population unaware of the instrument would suggest that the university should make a more concerted effort to advertise the instrument, use the instrument as part of the normal advisement process, and encourage faculty and staff members to implement a campaign to increase the student awareness

and usage of the Career Choice Tool to increase the success of all students, but especially those from diverse cultures, ensuring that the tool is used intentionally when student are advised. The researchers also suggest further exploration of student opinion of tools such as My Future in comparison to traditional advising methods.

A companion study would be useful to determine how many of the faculty advisers actually use this tool when students are with them for advisement and/or is there follow-up about the My Future tool if students have ventured to explore it on their own.

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