A LEARNING-CENTERED APPROACH TO HIGHER EDUCATION: PROFESSIONAL SUCCESS IN THE 21ST CENTURY

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ABSTRACT

Competition in the 21st century economy requires corporations, organizations, and professionals to face a common challenge: individuals constantly need to improve competences to increase personal marketability through higher education and professional development. This article represents a report focusing in Workforce Development and Diversity, currently being conducted by the authors at the Center for Workplace Diversity Research – School of Advanced Studies of the University of Phoenix. The purpose of this research is to understand the needs of constantly changing employer demands in the work environment while exploring various approaches to skill development, adult education, and learning processes, to reach the ultimate goal of professional success. This article will provide readers with an enriching discussion of an approach involving the development of a strong foundation, based on the necessary adult skills and competencies professionals need to succeed.


A LEARNING-CENTERED APPROACH TO HIGHER EDUCATION: PROFESSIONAL SUCCESS IN THE 21ST CENTURY

Competition in the 21st century knowledge economy requires corporations, organizations, and professionals to face a common challenge. This challenge encompasses the constant need for adults in the workforce to participate in upgrades that improve their marketable skills. Pursuing higher education, training, and professional certifications are essential steps to ensure a path to greater levels of competency. Active participation in a knowledge economy demands the use of new approaches, including distance learning, blended learning, media and web-based instructional programs that simulate the workplace as a classroom. Development of adult competences would result in the ability to apply relevant knowledge, abilities and skills to diverse work environments and improve preparation for students to succeed in the competitive global marketplace of the 21st century. This is the most significant challenge that universities and business schools encounter around the world (Carnevale, Stone, 1995; Carnevale, Hanson, 2015; Jacobs, 2013; Jacobs, 2014; Kets de Vries, Korotov, 2010).

In order to overcome this major obstacle, embracing a learning-centered environment (Knowles, 1980; Bishop, Caston, King, 2014; Nicolaides, Marsick, 2016) in the education world, mitigates the “sage on the stage” that envisions the instructor as the holder of an absolute

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truth (McCuddy et al., 2007). In using a broader, and more diverse set of alternatives to learning (Allen, Seaman, 2011) these sages, or educational agents, need to develop strategies that enable students to consolidate their learning in a single, unique and comprehensive whole that is able to adapt and morph according to the environment and the requirements. Learners whom are culturally diverse often use his or her experiences to learn and adapt by solving real client problems (Nicolaides, Marsick, 2016). The educator assumes a coaching role to facilitate learning while the student assumes the roles of a leader who engages in the challenges of group dynamics and manages ambiguous tasks. Teachers who become learners along with their adult students create new meaning for learner-centered. The ‘sage on the stage’ evolves into the generative learner “who engages with the student to examine, and negotiate differences—in life experiences, cultural backgrounds, disciplines, or epistemologies, shares control, welcomes divergent directions, and develops skills in questioning the dominant narrative” (Nicolaides, Marsick, 2016, p. 14). These transformations prepare students to demonstrate competencies to employers and the market, regardless of the understanding of the business environment or business needs.

**Professional Success in the 21st Century**

The first part of this article, will explore the connection between higher education and professional success in the marketplace. An examination of business environments will improve the ability to understand the specific and unique challenges of students and professionals. While technical skills are mandatory in almost every function of global business, they are not sufficient for exceptional performance. Other adult skills are instrumental towards building fundamental competencies required in diverse work environments. Research developed in the 1990’s in the United States (Carnevale, 1990) with additional updates for the 21st century (Neumann, Tan, 2011; McAlpine, Turner, 2012; Carnevale, Smith, Strohl, 2013; Carnevale, Smith, 2013), indicated the existence of different groups of competencies that would be necessary for any professional in the 21st century to be successful in their careers. Among them, includes the following skills (Figure 1):
For those competencies to flourish, the existence of a suitable environment, i.e., a solid foundation comprised of intellectual abilities and personal qualities and characteristics, often erroneously considered irrelevant, would be crucial. It is exactly the individuality of interpretation and actions that enable any individual to become successful throughout her or his career. The personal qualities enable the learning processes and specific skills to be utilized in the direction or toward the goal structured by the company or the individual. The absence of this foundation, therefore, would refrain the necessary skills for professional success from developing properly, leading to the formation of professionals who would not make a difference in the highly competitive global marketplace. The Bureau of Labor Statistics identified a current trend, described upskilling, as the rise of educational achievement of employees over time (“Bureau of Labor Statistics,” 2015). In the late 20th century, the United States government together with researchers and professional associations, such as ASTD – American Society for Training and Development, recently changed to Association for Talent Development, identified and consolidated necessary skills for professional success in many different books. Those studies paved the road for a program led by the US government that would transform education in the years to come. The program, named SCANS – Secretary of Labor’s Commission on Achieving Necessary Skills (Department of Labor, 1992), had a huge impact on how education was supposed to support the marketplace needs forecasted for professionals working in the 21st century, changing education from K-12 to College levels. The program encompassed transversal competencies, which were extremely important for students, independently of the future career to be pursued by them as professionals. Table 1 contains descriptions which were derived from the SCANS document (definitions of competencies and foundational skills).
### Table 1.
**SCANS Definitions of Competencies and Foundational Skills**

<table>
<thead>
<tr>
<th>Workplace Competencies</th>
<th>Foundation Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Resources:</strong> Identifies, Organizes, Plans, and Allocates Resources</td>
<td><strong>Basic Skills</strong></td>
</tr>
<tr>
<td>• Time: selects goal-relevant activities, ranks them, allocates time, and prepares and follows schedules;</td>
<td>• Reading: locates, understands, and interprets written information in prose and in documents such as manuals, graphs, and schedules;</td>
</tr>
<tr>
<td>• Money: uses or prepares budgets, makes forecast, keeps records, and makes adjustments to meet objectives;</td>
<td>• Writing: communicates thoughts, ideas, information, and messages in writing; and creates documents such as letters, directions, manuals, reports, graphs, and flow charts;</td>
</tr>
<tr>
<td>• Material and facilities: acquires, stores, allocates, and uses materials and space efficiently; and</td>
<td>• Arithmetic/Mathematics: performs basic computations and approaches practical problems by choosing appropriately from a variety of mathematical techniques;</td>
</tr>
<tr>
<td>• Human resources: assesses skills and distributes work accordingly, evaluates performance, and provides feedback.</td>
<td>• Listening: receives, attends to, interprets, and responds to verbal messages and other cues; and</td>
</tr>
<tr>
<td></td>
<td>• Speaking: receives, attends to, interprets, and responds to verbal messages and other cues; and</td>
</tr>
<tr>
<td><strong>Interpersonal:</strong> Works with Others</td>
<td><strong>Thinking Skills</strong></td>
</tr>
<tr>
<td>• Participants as member of a team: contributes to group efforts;</td>
<td>• Creative thinking: generates new ideas;</td>
</tr>
<tr>
<td>• Teaches others new skills;</td>
<td>• Decision making: specifies goals and constraints, generates; alternatives, considers risk, and evaluates and chooses best alternatives;</td>
</tr>
<tr>
<td>• Serves clients and customers: works to satisfy customers’ expectation;</td>
<td>• Problem solving: recognizes problems and devises and implements plan of action;</td>
</tr>
<tr>
<td>• Exercises leadership: communicates existing procedures and policies;</td>
<td>• Seeing things in the mind’s eye: organizes, and processes symbols, pictures, graphs, objects and other information;</td>
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<tr>
<td>• Negotiates: works towards agreements involving exchange of resources, and resolves divergent interest; and</td>
<td>• Knowing how to learn: uses efficient learning techniques to acquire and apply new knowledge and skills; and</td>
</tr>
<tr>
<td>• Works with diversity: works well with men and women from diverse backgrounds.</td>
<td>• Reasoning: discovers a rule of principle underlying the relationship between two or more objects and applies it in solving a problem.</td>
</tr>
<tr>
<td><strong>Information:</strong> Acquires and Uses Information</td>
<td><strong>Personal Qualities</strong></td>
</tr>
<tr>
<td>• Acquires and evaluates information;</td>
<td>• Responsibility: exerts a high level of effort and perseveres towards goal attainment;</td>
</tr>
<tr>
<td>• Organizes and maintains information;</td>
<td>• Self-esteem: believes in own self-worth and maintains a positive self;</td>
</tr>
<tr>
<td>• Interprets and communicates information; and</td>
<td>• Sociability: demonstrates understanding, friendliness, adaptability, empathy in group settings;</td>
</tr>
<tr>
<td>• Uses computers to process information.</td>
<td>• Self-Management: assesses self accurately, sets personal goals, monitors progress; and</td>
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<tr>
<td></td>
<td>• Integrity/Honesty: chooses ethical courses of action</td>
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</tbody>
</table>
System: Understands Complex Inter-Relationships

- Understands systems: knows how social, organizational, and technological systems work and operates effectively with them;
- Monitors and corrects performance: distinguishes trends, predicts impacts on system operations, diagnoses deviations in systems’ performance, and corrects malfunctions; and
- Improves or designs systems: suggests modifications to existing systems and develop new or alternative systems to improve performance.

Technology: Works with a Variety of Technologies

- Selects technology: chooses procedures, tools, or equipment including computers and related technologies;
- Applies technology task: understands overall intent and proper procedures for setup and operation of equipment; and
- Maintains and troubleshoots equipment: prevents, identifies, or solves problems with equipment, including computers and other technologies.

THE ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT

Recent international surveys have been conducted by The Organization for Economic Cooperation and Development (OECD) occurring in 2013 with additional updates scheduled through 2019. The reports include information from 40 countries that are associated with the Programme for the International Assessment of Adult Competencies (PIAAC). Measurements within the surveys focus on specific cognitive and workplace skills that individuals need to participate in society and for economies to prosper. The Organization for Economic Cooperation and Development (OECD) survey of adult skills emphasize the interdependence of humans and societies as “the way we live and work has changed profoundly and so has the set of skills we need to participate fully in and benefit from our hyper-connected societies and increasingly knowledge-based economies” (The Organization for Economic Cooperation and Development [OECD], 2013, p. 3). This survey was designed to provide countries with a better understanding of how education and training systems can develop work related skills. A variety of professionals from diverse
disciplines including educators, policy makers and labor economists will continue to use this information to create polices related to social, economic, and education disciplines. The primary goal is to use the results from the OECD report to enhance the skills of adults. The report includes data related to several countries. Additional updates for this valuable report will continue through 2016 to 2019. The following results, identified in table 2, represent highlights from the Adult Skills Survey that presents a global perspective regarding adult work related skills and the exact verbiage from the report has been included in the summary (OECD, 2013).

In an increasingly globalized society, the need for better skills and competencies is no longer a luxury, but a matter of survival and better employability for a legion composed of billions of participants of the global workforce. The results from the Survey of Adult Skills emphasize the need to shift from the focus on initial education towards continuous development of lifelong, skills-oriented learning. Skills that are considered tools to be developed throughout the lifespan of an individual will also help countries to improve the ability to balance allocation of resources that maximize economic and social outcomes.

The current times affirm the imperative to provide adults with international educational and intercultural learning opportunities in an increasingly interdependent and diverse world (Harvey, Allard, 2015; Nicolaides, Marsick, 2016). Information overload is a common occurrence, thus the skills required include the ability to access, assess, and filter out primary data and to do so with accuracy and agility. Given the exponential change in information, lifelong learning or continuous improvement is another essential ingredient for success. This is not an easy task.

Table 2.
OECD Survey Summary 2013

<table>
<thead>
<tr>
<th>Survey Category</th>
<th>Survey Result Highlight</th>
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</table>
| Adult Literacy             | • Significant numbers of adults do not possess the most basic information-processing skills considered necessary to succeed in today’s world; and  
• Poor literacy and numeracy skills may also place workers at considerable risk in the event that they lose their jobs or have to assume new or different duties when new technologies, processes and forms of work organization are introduced. |
| Elementary Computer Skills | • In nearly all countries, at least 10% of adults lack the most elementary computer skills;  
• The Survey of Adult Skills also shows that, in most countries, significant shares of adults have trouble using digital technology, communication tools and networks to acquire and evaluate information, communicate with others and perform practical tasks;  
• Across participating countries, from 7% to 27% of adult’s report having no experience in using computers or lack the most elementary computer skills, such as the ability to use a mouse;  
• In addition, there are also adults who lack confidence in their ability to use computers; and  
• In England/Northern Ireland (UK), Germany, Italy, Poland and the United States, social background has a major impact on literacy skills. In these countries more so than in others, the children of parents with low levels of education have significantly lower proficiency than those whose parents have higher levels of education, even after taking other factors into account. |
Social Disadvantage and Lower Skills Proficiency

- France, Germany, Poland and the United States all show both below-average performance and large social disparities; and
- The fact that the countries with the greatest social inequities in the OECD Programme for International Student Assessment (PISA) are also those with low rates of social mobility as observed in the Survey of Adult Skills suggests that the relationship between social disadvantage and lower skills proficiency may be established early in individuals’ lives.

Foreign Language Immigrants

- Social disadvantage and lower skills proficiency may be established early in individuals’ lives;
- In most countries, immigrants with a foreign-language background have significantly lower proficiency in literacy and numeracy than native-born adults;
- Countries with relatively large immigrant populations, such as Flanders (Belgium), France, the Netherlands, Sweden and the United States, need to consider more effective ways to support immigrants in learning the host language, through pre- and/or post-arrival interventions;
- Foreign-language immigrants who have low levels of education are particularly at risk; and
- When low educational attainment is combined with poor proficiency in the language of the host country, integration into the labor market and society becomes even more difficult.

Rapid Ageing Populations

- In England/Northern Ireland (UK) and the United States, the improvements between younger and older generations are barely apparent. Young people in these countries are entering a much more demanding labor market, yet they are not much better prepared than those who are retiring;
- In numeracy, the United States performs around the average when comparing the proficiency of 55-65 year-olds, but is lowest in numeracy among all participating countries when comparing proficiency among 16-24 year-olds. This is not necessarily because performance has declined in England/Northern Ireland (UK) or the United States, but because it has risen so much faster in so many other countries across successive generations; and
- The implication for these countries is that the stock of skills available to them is bound to decline over the next decades unless action is taken both to improve skills proficiency among young people, both through better teaching of literacy and numeracy in school, and through providing more opportunities for adults to develop and maintain their skills as they age.

Maintaining Work-Related Skills

- Beyond formal education, learning occurs in a range of other settings, including within the family, at the workplace and through self-directed individual activity;
- For skills to retain their value, they must be continuously developed throughout life. Lifelong learning opportunities are relevant for workers in both high-skilled and low-skilled occupations; and
- In high-technology sectors, workers need to update their competencies and keep pace with rapidly changing techniques. Workers in low-technology sectors and those performing low-skilled tasks must learn to be adaptable, since they are at higher risk of losing their job as routine tasks are increasingly performed by machines, and since companies may relocate to countries with lower labor costs.
### Proficiency and Age
- The Survey of Adult Skills shows proficiency in literacy, numeracy and problem-solving skills to be closely related to age in all countries, reaching a peak at around age 30.

### Participation in Adult Learning
- Countries showing higher levels of participation in organized adult learning activities also demonstrate higher literacy and numeracy skills;
- Participation in adult learning helps to develop and maintain literacy and numeracy skills, especially when the learning programs require participants to read and write, and confront and solve new problems;
- As individuals age and spend more time out of education, other factors, such as participation in adult learning activities, the tasks they perform at work, and engagement in activities involving the use of literacy, numeracy and problem-solving skills outside of work, become increasingly important for enhancing and maintaining these skills;
- Higher levels of literacy and numeracy facilitate learning; therefore, people with greater proficiency are more likely to have higher levels of education and be in jobs that demand ongoing training. They may also have the motivation and engagement with work that encourage individuals to learn and/or their employers to support them. All this can create a virtuous cycle for adults with high proficiency – and a vicious cycle for those with low proficiency; and
- Low-skilled adults risk getting trapped in a situation in which they rarely benefit from adult learning, and their skills remain weak or deteriorate over time – which makes it even harder for these individuals to participate in learning activities. This presents a formidable policy challenge for countries such as Canada, England/Northern Ireland (UK), Ireland, Italy, Spain and the United States, where significant shares of adults are at or below Level 1 on the literacy and numeracy scales. Helping low-skilled adults to break this vicious cycle is crucial.

### Improving Adult Literacy
- Many countries offer subsidized adult literacy and numeracy programs, designed to upgrade the skills of low-skilled adults. In addition, policies may aim specifically to increase the participation of low-skilled adults in adult learning, for example through targeted subsidies;
- Results from the Survey of Adult Skills suggest that Denmark, Finland, the Netherlands, Norway and Sweden have been most successful in extending opportunities for adult learning to those adults who score at or below Level 1; and
- Within the workplace, for example, redesigning work tasks to maximize engagement in activities that require the use of literacy, numeracy and ICT skills should be considered in conjunction with providing training.
Develop Links Between the World of Learning and The World of Work

- Skills development can be more relevant and effective if the world of learning and the world of work are linked. Learning in the workplace allows young people to develop hard skills on modern equipment, and soft skills, such as teamwork, communication and negotiation, through real-world experience;
- Hands-on workplace training can also help to motivate disengaged youth to stay in or re-engage with the education system and makes the transition from education into the labor market smoother;
- The more individuals use their skills and engage in complex and demanding tasks, both at work and elsewhere, the more likely it is that skills decline due to ageing can be prevented; and
- The Survey of Adult Skills shows that countries where a large proportion of the workforce is employed in jobs requiring greater use of reading skills have higher output per hour worked, a standard indicator of labor productivity.

Under-Skilling

- Under-skilling, the under-use of skills and unemployment can also reflect lack of information and transparency; and
- The under-use of skills is often related to field-of-study mismatch, whereby individuals work in an area that is unrelated to their field of study and in which their qualifications are not fully valued. Under-skilling could be the result of skills shortages that force employers to hire workers who are not the best fit for the jobs on offer.

Gender Differences

- The Survey of Adult Skills shows little variation in proficiency between men and women;
- If literacy and numeracy skills were used less frequently in part-time jobs than in full-time jobs, this may explain part of the difference in skills use between genders, as women are more likely to work part-time than men;
- This reasoning could apply to occupations as well, with women more likely to be found in low-level jobs that presumably require less intensive use of skills. When these factors are taken into account, differences in skills use by gender are smaller; and
- While women tend to be concentrated in certain occupations, they use their skills more intensively than do the relatively few men who are employed in similar jobs.

The second half of this article, includes the learning-centered approach to higher education that can enable the right competences for successful professionals. Within the past twenty years a paradigm shift has been occurring in higher education (Barr, Tagg, 1995). Instruction paradigm shifted towards a learning paradigm resulting in a new learner-centered method. During this time period there was increasing interest in learner-centered and learning-centered strategies. An important suggestion by the authors in the article was to reconsider the perception of learners and how educators can impact the learning environment in a significantly different way.

The traditional higher education approach addresses and educates adult learners in the same way children at school have been educated for years. This technique, called pedagogy and “sage on stage”, relies on the low levels of Bloom’s Taxonomy and it focuses purely on
a knowledge transfer in which the faculty has total control of the learning process. However, adults have moved beyond the childhood skills and have learned how to survive by utilizing their own idiosyncrasies, experiences, and expectations. The transformations in adult approaches to learning have extended to faculty in higher education who are becoming more learner-centered by embracing more interactive teaching methods (Doyle, 2011). Demonstration of learning-centered methods when presenting new materials should involve a variety of presentation methods that may include visual presentations and experiential applications. Results from a research study that included development of a learner-centered program at a public university indicated that students were very receptive to the learning-centered courses and opportunities to engage in interactive classroom discussion and negotiation (Bishop, Caston, King, 2014). Learning-centered approaches should also consider using one or more different styles of learning from the eight intelligences, which include visual – spatial, body – kinesthetic, musical, interpersonal, intrapersonal, linguistic, logical – mathematical, and naturalist (Gardner, 2006).

Learning by doing, also known as experiential learning, play a very important role for professionals who are already integrated into the marketplace and need to not only know things but deliver a high performance on a daily basis and in a very competitive environment.

**Experiential Learning**

Kolb (1984) provided a foundation for the experiential perspective and development of Kolb’s cycle that organizes this approach of learning in sequential steps, namely concrete experience, reflective observation, abstract conceptualization, and active experimentation, that can be repeated as many times as needed. Kolb, however, has not adjusted his model to include social and/or power pressures, unconscious elements including personal egos and evaluations of the learning environment, idiosyncratic defense mechanism, evolutionary processes, and evaluations of the benefit or utility of what is learned (Vince, 1998).

Experimental learning is from the basic perspective of hands-on learning and activities associated with experiential learning may involve service learning, applied learning within the particular discipline, co-operative education, internships, study abroad and experimental activities (Austin, Rust, 2015). Techniques associated with experiential learning can help learning transfer and the ability to delve deeper into the learning process by using project-based learning, reflective learning, and cooperative learning (Furman, Sibthorp, 2013). Positive results were reported from a study performed at a large public university where an experiential learners program was developed. There was a significant increase in requests for faculty to design experiential learning courses. Employers were attracted to graduates from the experiential program. After five years experiential learning activities resulted in a financial increase of $1.5 million to the regional area (Bishop et al., 2014). But, despite this encouraging evidence there should be a discussion regarding the less desirable learning process.
However, another perspective to consider is when people constantly encounter problems connected to their learning process that result in lower-than-desirable effective learning. Some of these include people are forced to learn in a pedagogical way, the so-called “sage on the stage”. That is, there is someone teaching, transmitting information, and directing the learning with no room for interaction or discussion and/or people have been afar from classrooms for a long period of time and are no longer used to attending classes and transforming this experience into learning. This can really impair individual learning process creating many difficulties for achieving learning outcomes, which may include lack of adequate time management skills, with the consequent available time not being sufficient for the necessary dedication to learning activities, lack of a learning methodology aligned to one’s cognitive development stage, and lack of a context that justifies the search for new learning. These outcomes are complicated by the individual's personal motivation or characteristics that may or may not stem from previous experience, but exist nevertheless. These characteristics may include lack of comfort in continuing or restarting to learn, due to previous unpleasant or negative teaching/learning experience and lack of personal motivation to learn despite understanding the close connection between learning and developing; envisioning this process only as a necessary evil, something that must be pursued but without enjoyment or pleasure.

Despite these obstacles, educators of adults need to develop a better understanding of the adult's learning process and all roles involved in the process within the surrounding environment. The desired outcome is a learner-centered education, in which students share the responsibility of learning with facilitators and which lead to successful personal and professional development. This is an approach that was named Andragogy by Malcolm Knowles (1980), an American educator who, at the end of the 20th century, questioned the outcomes obtained by the use of a traditional approach, or Pedagogy, with adult students. Knowles (1980) based the andragogical model on four fundamental assumptions, all of which had some relationship to our notions about a learner’s ability, need, and desire to take responsibility for learning, which further included the learner’s self-concept moves from dependency to independency or self-directedness, the learner accumulates a reservoir of experiences that can be used as a foundation upon which to build their learning, the learner’s readiness to learn becomes increasingly associated with the developmental tasks of social roles, and the learner’s time and curricular perspectives change from postponed to immediacy of application and from subject-centeredness to performance-centeredness.

Thus, Andragogy and Pedagogy differ considerably in terms of how to approach the student, the conceptualization of the learning environment, and the interaction between and among the student(s) and the educator. These differences are consolidated in figure 2.
<table>
<thead>
<tr>
<th>Pedagogy (“sage on the stage,”)</th>
<th>Andragogy (student-centered learning)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students are dependents</td>
<td>Students are independents and self-directed</td>
</tr>
<tr>
<td>Students are extrinsically motivated (rewards, competition, etc.)</td>
<td>Students are intrinsically motivated (achievement)</td>
</tr>
<tr>
<td>Learning characterized by knowledge and information transmission (lectures, assigned readings)</td>
<td>Learning characterized by inquisitive projects, experimentation and independent studies</td>
</tr>
<tr>
<td>Formal learning environment characterized by competition and value judgment</td>
<td>A more informal learning environment characterized by equity, mutual respect and cooperation</td>
</tr>
<tr>
<td>Planning and evaluation are completely controlled by educator</td>
<td>Learning should be based on experience</td>
</tr>
<tr>
<td>The performance is basically evaluated through external methods (grades, quizzes and exams)</td>
<td>Students are centered on performance in their learning processes</td>
</tr>
</tbody>
</table>

Figure 2. Pedagogy vs. Andragogy (adapted from Jarvis, 1985)

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**THE TRUTH IS OUT THERE**

Today, the need for more knowledge, skills, and abilities is increasing every day, making efficient and effective learning a must for the majority of adults. Conversely, reaching and motivating people to continue learning and developing even further is a task extremely complicated. Many factors contribute learning obstacles that must be overcome for enabling people to succeed in their careers. These obstacles include losing face involved in allowing others (subordinates, friends, younger adults, etc.) to know you do not have the necessary knowledge, remembering how to study for tests, being comfortable with the way things used to be, facing time pressures with the demands of work, family, and friends, dealing with the eventual requirement to travel or commute to the educational institution (if offering is not online), experiencing the human desire to fit in with co-workers who are not continuing their education, dealing with requirements for precise information, not general education or generalized concepts, and many more reasons and excuses that can be used for not continuing with higher education (Edelson, 2000).

This is complicated by the emotional and psychological environment of the classroom wherein often the distance between students and faculty in the classroom is significant. As adults, the fear of failure and the misalignment between students’ and faculty’s expectations often leads to a growing percentage of withdrawals or lack of commitment by those who are enrolled. Still other students are disenchanted with programs due to lack of rigor within the course, high expenses, the failure of courses to include current material, among others (“CAREERwise,” n.d.).

There are many issues to be addressed but is the replacement of Pedagogy by Andragogy sufficient? Is Andragogy the best solution for all learning situations involving adults?

Within this paper, we respond to these questions by relying on a learning-centered environment,
represented by a continuum, shown in Figure 3. At one end of the continuum is Pedagogy or teacher-directed learning; and on the other is Andragogy or teacher-facilitated learning. The continuum has been discussed elsewhere (De Aquino, 2008) and is used herein to highlight the best balance of these two methods of instruction and, therefore, improve the effectiveness and efficiency of the learning process.

The authors, based on their own experience and research, believe that different levels of professionals/students in different educational institutions, from different age groups, will require a different combination of Andragogy and Pedagogy to be better prepare to face the challenges of the very competitive marketplace and succeed. Therefore, faculty and educational organizations should be able to move along this continuum and find the correct balance between the two pure approaches to build a learning-centered environment. The right blend of Pedagogy and Andragogy as the learning approach - and the consequent right positioning in the continuum - depends upon a series of factors. Among these factors one could include the cognitive development level of the learners, the characteristics of the learners’ generation, the previous educational experiences of the learners, their learning styles, the learning objectives, the educational environment, their professional goals, and the external environment.

The Role of Faculty and Educational Organizations

As discussed before, the correct positioning in the learning continuum can be influenced by many factors, but besides that, it is necessary that faculty members adopt a pro-active attitude, characterized by the following aspects:

- Faculty should read each class profile, meaning that before starting any further interactions or activities it is desirable to get acquainted and understand who are those people sitting in the classroom - the learners, with their previous background and experiences, and their expectations – and prepare a tailored approach that could address the specific learning needs of that particular group of students. Diversity is one of the most powerful traces of the world we live in. One approach cannot be of universal application and success.

- The faculty should demonstrate a total confidence in the students’ ability to learn. This is an approach widely known in the educational area, and in the marketplace in general, as the Pygmalion Effect (Rosenthal, Jacobson, 1968) or the Self-Fulfilling Prophecy.

- The faculty must provide a context to the learning experience. It is far more appealing to the learner to discover that all information and knowledge being gathered can and will be used in both their personal as their professional lives. This leads to a change from a dualistic focus to a relativistic one, in which whatever is learned has a meaning and must be worked, evaluated and modified according to daily needs for personal growth, using an experiential and/or social approach to learning as defined by Kolb (2014) and Bandura (1977).

As one can realize from analyzing the above statements, the path chosen in this article is to foster a facilitated learning, giving a great share of responsibility and decision power to the learners. This approach prepares professionals that are more capable of facing the ambiguities
and challenges existing in a world that is intrinsically dynamic and changes at increasing speeds.

**Figure 3. Learning Continuum**

**A UNIVERSITY EXPERIENCE**

At a given university environment, the authors had to face a great deal of diversity, in terms of both different cultures and generations. The University used in this research had five campuses (one in the US and four in Europe) and students that came from more than 100 different countries, with a great concentration of individuals from China and India. In those two specific cultures, students expected to receive directions from the faculty members and do not share responsibility of learning with them. However, the philosophy of education at the chosen academic environment was to prepare professionals to succeed in the global marketplace, so a great deal of time was spent on respecting everyone’s culture, but at the same time adding other cultures’ aspects into the original cultural basis. Another specific ingredient in the chosen environment was the presence of different generations: Baby Boomers, Generation X, and Millennials (Hicks, Hicks, 1999), what made the task of developing a learning-centered environment even tougher. The faculty members were in its majority members of the Baby Boomers’ generation, whereas the students divided into Xers and Millennials. The natural clash between learning styles had to be addressed. In order to overcome all these issues and create a learning-centered environment at the University, a philosophy of active learning was adopted and all syllabi were reviewed,
with the definition of new learning outcomes that would foster the development of the upper levels of Bloom’s Taxonomy (1956, 1970) in all undergraduate and graduate programs. A faculty development program focused on developing skills for implementing a facilitated learning was implemented. The faculty members had to be prepared and motivated to use different approaches in the classroom, in order to reach out to a bigger percentage of the students. The delivery had to be more aligned with an experiential and social approach to learning, as exemplified as follows:

- Use of up-to-date textbooks that explored the multimedia nature of students, through media clips, website interaction, etc.
- Combination of lectures and simulations to contextualize the knowledge into a real marketplace and foster the development of critical thinking and conceptual skills
- Use of the case method and role plays to develop interpersonal and managerial skills
- Mentoring, coaching and counseling to foster social learning
- Participation in external activities, to increase networking and opportunities for employment.
- Invitation to guest speakers to bring the reality of the marketplace to the classroom.
- Use of Skype and other Internet options as an alternative to bring guest speakers to the classroom

On the students’ dimension, the university worked towards the creation and/or updating of programs to develop learning and study skills that could help success not only during college, but also in the future careers. Employability was a must, and the development of learning skills should be the foundation for managerial and interpersonal skills, the skills that employers really are looking for in prospect employees.

6. **Conclusion**

Life in a college or a university is just a step to be overcome towards a successful career. The potential employers in the marketplace look for professionals that are capable to show and use appropriately not only technical skills for a specific area, but also interpersonal and managerial skills. Students need to be approached in such a way to foster their interest in the development of such characteristics, since they will help them to pursue a successful career and life. This approach involves the creation of a strong foundation over which these interpersonal and managerial skills will lay on. Learning is a must for the rest of their lives and this is an issue that needs to be addressed in a clear and concise way: learning-centered approach to education, based on experiencing and including many dimensions to reach the diversity of students we have today. Lifelong learning and the correct skills will certainly prepare them for the years to come.
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