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## A global learning-centered approach to higher education: workplace development in the 21st century

### Summary

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### Abstract:

Competition in the 21st century economy requires corporations, organizations, and professionals to face a common challenge: diverse individuals need consistent motivation towards building competences that increase personal marketability using a combination of higher education and professional development. This article represents an evolving report summary and non-traditional learning-centered approach focusing on adult competences necessary for succeeding in the competitive global marketplace of the 21st century. The purpose of this article is to understand the needs of constantly changing employer demands in the work environment. Exploring contemporary approaches related to skill development, adult education, and learning processes, will be the path towards higher levels of professional success. This article will provide readers with an enlightening discussion focusing on the necessary adult skills and competencies professionals need to succeed in the global marketplace.

**Keywords:** global marketplace, workplace development and diversity, professional development, work environments, learning-centered education, andragogy, competencies.

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# Un enfoque global centrado en el aprendizaje de la educación superior: el desarrollo del lugar de trabajo en el siglo XXI

## Extracto:

La competencia en la economía del siglo XXI requiere que las corporaciones, las organizaciones y los profesionales se enfrenten a un desafío común: distintos individuos necesitan una motivación constante para desarrollar competencias que aumenten la capacidad de negociación personal utilizando una combinación de educación superior y desarrollo profesional. Este artículo presenta un resumen de un informe en desarrollo y una aproximación al enfoque centrado en el aprendizaje no tradicional sobre las competencias que los adultos necesitan para tener éxito en el mercado global competitivo del siglo XXI. El propósito de este artículo es entender las necesidades de las demandas constantemente cambiantes del contratante en el ambiente de trabajo. Explorar enfoques actuales relacionados con el desarrollo de destrezas, con la educación de adultos y con los procesos de aprendizaje será el camino hacia niveles más altos de éxito profesional. Este artículo proporcionará a los lectores una discusión esclarecedora, centrándose en las habilidades adultas necesarias y en las competencias profesionales que se necesitan para tener éxito en el mercado laboral.

**Palabras clave:** mercado global, desarrollo y diversidad en el lugar de trabajo, desarrollo profesional, entornos de trabajo, educación centrada en el aprendizaje, andragogía, competencias.



## 1. INTRODUCCIÓN

Global competition in the 21st century knowledge economy requires diverse organizations, and professionals to confront common challenges. Success in the competitive global marketplace includes development of diverse adult competences that are unique among different countries around the world (OECD, 2013). A new meaning for learning-centered approach will include adults who commit to continuing education, training, and skill development throughout the adult stages of life. Learning-centered adults with marketable skills will have a competitive advantage in the workplace of the future (OECD, Survey, 2013). The challenges for universities around the world are to ensure that students graduate with relevant global knowledge, abilities and skills that will enable them to compete in the job market (Carnevale and Stone, 1995; Carnevale and Hanson, 2015; Jacobs, 2013 y 2014; Kets de Vries and Korotov, 2010).

However, initial steps towards confronting these challenges includes embracing a learning-centered environment (Knowles, 1980; Bishop, Caston and King, 2014; Nicolaidis and Marsick, 2016) and transforming the «sage on the stage» in the traditional academic arena that perceives the instructor as the holder of an absolute truth (McCuddy *et al.*, 2007). Diverse alternative learning methods (Allen and Seaman, 2011) are available as resources for academic agents, institutions of higher learning, and traditional sages, who need to develop new strategies. Current trends associated with non-traditional learning approaches include virtual and blended learning (Cauthen and Halpin, 2012), flipped classrooms (O'Flaherty and Phillips, 2015) interactive e-learning systems designed for adult learners (Bell and Federman, 2013; Toolwire, 2016) and media embedded in course materials such as computer-based games, simulations and video podcasts (Schmier, 2014). Academic agents in diverse global learning environments

can apply these alternative learning approaches to develop or enhance blended, virtual or a combination of learning environments. Non-traditional methods enable adult students and faculty to learn by not only thinking outside the box but also creating a new one.

«To reach a higher order of andragogical teaching, faculty may benefit from including some or all of blended class-room, flipped classroom, active learning, team-based learning, interactive tutorials, eBooks, Toolwire, and embedded media techniques. Efforts to transform the class-room not only helps match student technology expectations with faculty course facilitation but also encourages development of new adult learning models that will propel higher education to new levels» (De Aquino *et al.*, 2016).

Diverse student learners use personal and professional experiences to learn and adapt by solving real client problems (Nicolaidis and 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 the learner-centered approach. 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,

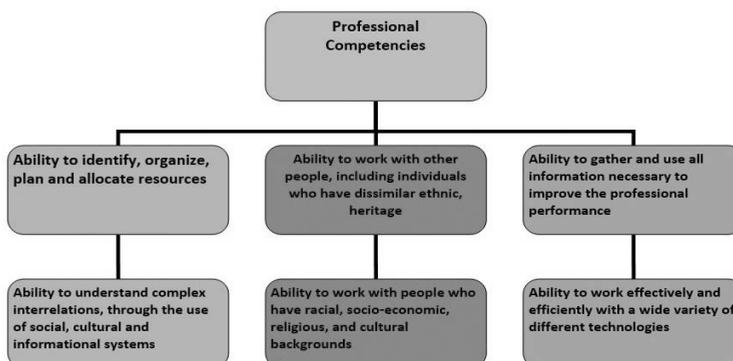
or epistemologies, shares control, welcomes divergent directions, and develops skills in questioning the dominant narrative» (Nicolaidis and Marsick, 2016, p. 14).

## 2. PROFESSIONAL SUCCESS IN THE 21ST CENTURY

Part one of this article will explore the connection between higher education and professional success in the global marketplace. Examination of diverse 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 area 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 and Tan, 2011; McAlpine and Turner, 2012; Carnevale, Smith and Strohl, 2013). Carnevale and 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):

Figure 1. Skills for the 21st Century



Source: Carnevale and Smith (2013).

For these professional competencies to flourish, combinations of ability to organize; understand complex systems; work with diverse people; improve professional performance and work with different technologies would be crucial for an individual to master. Development of these abilities prepares students to demonstrate competencies to employers in the global market, regardless of the understanding of the business environment or business needs.

A report developed by The Organization for Economic Cooperation and Development (OECD) identified a current trend, described as «upskilling» that supports building professional competencies by documenting the rise of educational achievement of employees

**While technical skills are mandatory in almost every area of global business, they are not sufficient for exceptional performance**

over time (OECD, 2013). This report should encourage continuous development of necessary skills that would make a difference in increasing diverse skill levels within diverse work environments. However, valuable work is also occurring within OECD that offers a global perspective on essential workplace skills.

### 3. THE ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT

OECD conducted international surveys, 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. OECD survey of adult skills emphasize the interdependence of humans and societies. An important observation in the survey suggests «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» (OECD, 2013, p. 3).

The design of the survey provides countries with a clear 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 policies 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 from 2016 to 2019. The following results, identified in Table 1, 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).

### 4. SKILLS-ORIENTED LEARNING

A global society is becoming the new normal. Demonstrating higher quality skills and professional competencies are no longer luxuries, but a matter of survival and marketability for billions of diverse participants in the global workforce. Results from the Survey of Adult Skills emphasize the need to shift the focus from initial education towards commitment to skills-oriented learning throughout the adult stages of life. Identifying particular skills to develop throughout the lifespan of an individual will also help diverse countries to improve the ability to balance allocation of resources that maximize economic and social outcomes.

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

Table 1. OECD Survey Summary 2013

Survey Category	Survey Result Highlight
<p>Adult Literacy</p> <p>Elementary Computer Skills</p>	<ul style="list-style-type: none"> <li>• Significant numbers of adults do not possess the most basic information-processing skills considered necessary to succeed in today's world.</li> <li>• 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.</li> <li>• In nearly all countries, at least 10% of adults lack the most elementary computer skills.</li> <li>• 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.</li> <li>• Across participating countries, from 7% to 27% of adults report having no experience in using computers or lack the most elementary computer skills, such as the ability to use a mouse.</li> <li>• In addition, there are also adults who lack confidence in their ability to use computers.</li> <li>• 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.</li> </ul>
<p>Social Disadvantage and Lower Skills Proficiency</p>	<ul style="list-style-type: none"> <li>• France, Germany, Poland and the United States all show both below-average performance and large social disparities.</li> <li>• 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.</li> </ul>
<p>Foreign Language Immigrants</p>	<ul style="list-style-type: none"> <li>• Social disadvantage and lower skills proficiency may be established early in individuals' lives.</li> <li>• In most countries, immigrants with a foreign-language background have significantly lower proficiency in literacy and numeracy than native-born adults.</li> <li>• 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.</li> <li>• Foreign-language immigrants who have low levels of education are particularly at risk.</li> <li>• 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.</li> </ul>
<p>Rapid Ageing Populations</p>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> <li>• 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.</li> </ul>

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Table 1. OECD Survey Summary 2013 (cont.)

Survey Category	Survey Result Highlight
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Maintaining Work-Related Skills	<ul style="list-style-type: none"> <li>Beyond formal education, learning occurs in a range of other settings, including within the family, at the workplace and through self-directed individual activity.</li> <li>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.</li> <li>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.</li> </ul>
Proficiency and Age	<ul style="list-style-type: none"> <li>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.</li> </ul>
Improving Adult Literacy	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>Within the workplace, for example, redesigning work tasks to maximize engagement in activities that require the use of literacy, numeracy and information and communication technologies (ICT) skills should be considered in conjunction with providing training.</li> </ul>
Participation in Adult Learning	<ul style="list-style-type: none"> <li>Countries showing higher levels of participation in organized adult learning activities also demonstrate higher literacy and numeracy skills.</li> <li>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.</li> <li>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.</li> <li>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.</li> <li>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.</li> </ul>
Develop Links Between the World of Learning and The World of Work	<ul style="list-style-type: none"> <li>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;</li> <li>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.</li> </ul>
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Table 1. OECD Survey Summary 2013 (cont.)

Survey Category	Survey Result Highlight
.../...	
Develop Links Between the World of Learning and The World of Work (cont.)	<ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> </ul>
Under-Skilling	<ul style="list-style-type: none"> <li>• Under-skilling, the under-use of skills and unemployment can also reflect lack of information and transparency.</li> <li>• 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.</li> </ul>
Gender Differences	<ul style="list-style-type: none"> <li>• The Survey of Adult Skills shows little variation in proficiency between men and women.</li> <li>• 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.</li> <li>• 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.</li> <li>• 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.</li> </ul>

Source: OECD (2013).

## 5. A GLOBAL LEARNING-CENTERED APPROACH

In the second part of this article, there is a discussion of the initial paradigm shift introducing the learning-centered approach to higher education. The authors of this article suggests considering a different perspective of this approach as a non-traditional method of enabling professional competences to address needs of participants in a global workforce.

**(...) the model of instruction has shifted towards a more learning focused approach using different tools and techniques. This evolution has seen an increasing interest in learner-centered and learning-centered strategies**

## 6. INITIAL PARADIGM SHIFT

During the past twenty years, there has been a paradigm shift evident within the higher education sector (Barr and Tagg, 1995). Specifically, the model of instruction has shifted towards a more learning focused approach using different tools and techniques. This evolution has seen an increasing interest in learner-centered and learning-centered strategies. Whereas the previous model was focused on the instructor and a more lecture oriented style of teaching. An important suggestion by the authors (Barr and Tagg, 1995) in the article was to reconsider the perception of learners and how educators can affect the learning environment in a significantly different way. According to Bishop, Caston and King (2014, p. 1), «the classroom for a learner-centered environment is quite different from traditional classrooms. Students are required to take on new learning roles and responsibilities beyond taking notes, listening to teachers teach, and passing exams».

Traditionally, higher education addressed and educated adult learners in the same way children at school have been educated for years. This technique, called pedagogy and known as the «sage on stage» approach, relies on the lower levels of Bloom's Taxonomy (Vanderbilt Center for Teaching, 2016) focusing exclusively on a knowledge transfer in which the faculty has total control of the learning process. Clearly, adult learners have moved beyond basic childhood skills and they 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). For example, learning-centered methods when presenting new materials increasingly involve a wide range of presentation methods that may include action learning aimed at engaging learners at all points in the education process. Specific techniques within this new model may include visual presentations and experiential applications. Empirical results from a research study that included development of a learner-centered program at a public university indicated:

«Learner-centered teaching styles:

- A. Create an atmosphere of comfort.
- B. Invite open expression.
- C. Invite meaningful class discussions.
- D. Allow for the development of peer learning.
- E. Nurture student-teacher and student-student connections» (Bishop, Caston, and King, 2014, p. 60).

In addition, learning-centered approaches should also consider 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).

Another key concept in the new learner-centered model is «experiential learning» which plays 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.

## 7. 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. The framework developed by Kolb, however, does not 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).

Essentially, development of experiential learning originated from the basic perspective of hands-on learning. Activities that are associated with experiential learning may involve service learning, applied learning within the particular discipline, co-operative education, internships, study abroad and experimental activities (Austin and Rust, 2015). The key advantage of this technique relates to the fact that it involves and engages the learner throughout the education process. Specific 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 and 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. Often employers are more attracted to graduates from the experiential program as they have had a more «hands on» approach to their own learning. For example, one research study reports that after five years of experiential learning activities there has been a financial increase of \$1.5 million to the regional area (Bishop, Caston and King, 2014). Notwithstanding this encouraging evidence there should be a discussion regarding the less desirable learning process.

**Often employers are more attracted to graduates from the experiential program as they have had a more «hands on» approach to their own learning**

## 8. 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 manner, the traditional «sage on the stage» methodology. As noted previously, this traditional method has an «expert» lecturing to a class. That is, there is someone teaching,

transmitting information, and directing the learning with no room for interaction or discussion. This method of traditional teaching is often very difficult for adult learners to adapt to, as many are simply not prepared to attend lectures. Often these learners have been out of a classroom for a long period. In that regard, adult learners are no longer used to attending classes and transforming this experience into learning.

## 9. POOR LEARNING OUTCOMES

This traditional model can significantly impair the individual learning process. In addition, this model can create many difficulties for achieving learning outcomes. Lack of adequate time management skills suggests that consequent available time is not sufficient for dedication to learning activities. The absence of a learning methodology aligned to one's cognitive development stage, and deficit in a context that justifies the search for new learning contributes to poor learning outcomes. Complications associated with these outcomes include the individual's personal motivation or stressful events that may or may not connect with previous experience, but exist in reality. Because of these events, there may be mental or emotional discomfort in re-initiating or continuing the learning process, because of previous unpleasant, negative or traumatic learning experiences. Diminished personal motivation to learn may also be a factor despite understanding the close connection between learning and developing; envisioning this process only as a necessary evil, or something that must be pursued but without enjoyment or pleasure.

Because of these types of obstacles, educators working with adult learners need to develop a better understanding of the adult's learning process and all roles involved in the process within the surrounding environment. In this new model, the outcome that is being pursued 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 «shared

learning» approach is called «andragogy» (Knowles, 1980). Knowles, an American educator questioned the actual outcomes obtained by the use of a traditional approach, or pedagogy, with adult students.

Knowles (1980) based the model for andragogy on four fundamental assumptions. Each assumption associated with this model had some relationship to notions about a learner's ability, need, and desire to take responsibility for learning. This particular model includes the learner's self-concept then transitions from dependency to independency or self-directedness. The learner accumulates a reservoir of experiences that serve as a foundation to strengthen their learning abilities. The learner's readiness to learn becomes increasingly associated with the developmental tasks of social roles, and the learner's time and perspectives change from postponed to immediacy of application and from subject-centeredness to performance-centeredness. These assumptions put forth by Knowles recognize that adult learners bring a wealth of experiences to the classroom. Using a learner centered approach can help in linking these practical experiences to the theory component. This linkage makes the learning more realistic and of more value to the learner as opposed to the traditional teaching method.

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.

Figure 2. Pedagogy versus Andragogy

<b>Pedagogy</b> (“sage on the stage”)	<b>Andragogy</b> (student-centered learning)
Students are dependents	Students are independents and self-directed.
Students are extrinsically motivated (rewards, competition, etc.)	Students are intrinsically motivated (achievement)
Learning characterized by knowledge and information transmission (lectures, assigned readings)	Learning characterized by inquisitive projects, experimentation and independent studies
Formal learning environment characterized by competition and value judgment.	A more informal learning environment characterized by equity, mutual respect and cooperation
Planning and evaluation are completely controlled by educator	Learning should be based on experience.
The performance is basically evaluated through external methods (grades, quizzes and exams)	Students are centered on performance in their learning processes.

Source: adapted from Jarvis (1985).

## 10. THE TRUTH IS OUT THERE

Results from The Organization for Economic Cooperation and Development report in 2013 confirms that in the knowledge based, global economy of modern society there is a need for more training, credentials, diverse skills, and technical abilities to strengthen a global workforce. Fulfilling the need for these skills requires building an agile global workforce that is continuously learning and improving their skills to remain competitive. However, efforts to contact, and motivate people to continue learning, and developing is an extremely challenging task. A recommendation is to develop strategies that confront multiple factors contributing to learning obstacles throughout various stages of adulthood. Adult learners consider education options as a way to overcome obstacles and to succeed in their careers. In that regard, the learner-centered option can provide a supportive learning method and encourage dialogue among the participants. The types of obstacles that may an adult learner may encounter are daunting. Examples of particular obstacles may include (Edelson, 2000):

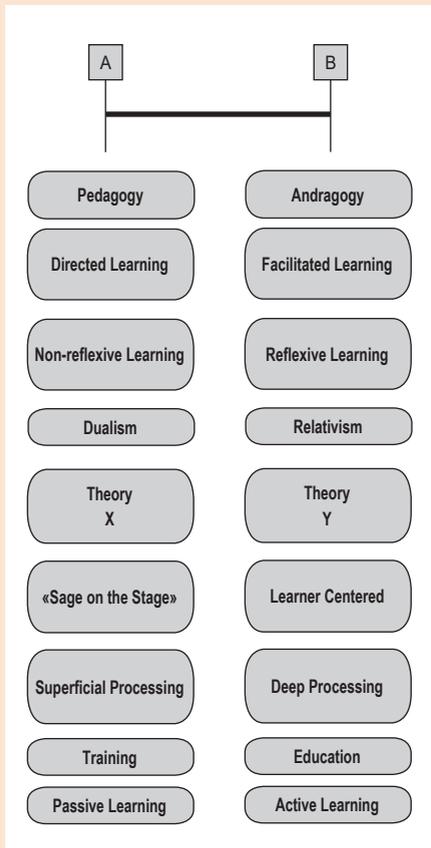
- Losing face involved in allowing others (subordinates, fiends, younger adults, etc.) to know you do not have the necessary knowledge.
- Remembering how to study for tests.
- Being comfortable with the way things used to be.
- Facing time pressures with the demands of work, family, and friends.
- Dealing with the eventual requirement to travel or commute to the educational institution (if offering is not on-line).
- 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.

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?

## 11. THE LEARNING CONTINUUM

Within this paper, we respond to these questions by relying on a learning-centered environment, represented by a continuum, illustrated 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.

Figure 3. Learning Continuum



Source: De Aquino (2008).

## 12. A GLOBAL LEARNING-CENTERED ENVIRONMENT

The general belief is 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 prepared to face the challenges of the very competitive marketplace and succeed (Samaroo, Cooper and Green, 2013). 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 global 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 global learners, the characteristics of the global learners' generation, the previous educational experiences of the global learners, global learning styles, global learning objectives, the global educational environment, their professional goals, and the external environment.

## 13. THE ROLE OF FACULTY AND EDUCATIONAL ORGANIZATIONS

Multiple factors influence the correct positioning in the learning continuum, 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 and 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).

## 14. A GLOBAL LEARNING-CENTERED UNIVERSITY EXPERIENCE

Within a particular university environment, the authors encountered significant amounts of diversity, involving diverse cultures and generations. The University used in this research consisted of five campuses (one in the United States and four in Europe) and students that originated from more than 100 different countries, with a large 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, resulting in commitment to a large amount of time demonstrating respect for multiple cultures. Other cultural distinctions in the chosen environment were the presence of different generations: Baby Boomers, Generation X, and Millennials (Hicks and Hicks, 1999), that increased the challenges associated with developing a global learning-centered environment. A majority of faculty members were members of the Baby Boomer generation, whereas the students were part of Generation X or Millennials. It was important to address the natural conflicts associated with learning styles.

In order to overcome all these issues and create a global learning-centered environment at the University, adoption of a philosophy of active learning included a review of all syllabi with the definition of new learning outcomes that would support 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 facilitation as the learning method. Advanced preparation by faculty members was sufficient motivation to use different approaches in the class-

room, in order to connect with a larger percentage of the students. The delivery was in alignment with an experiential and social approach to learning. The actual classroom delivery also included the use of the most current textbooks, combination of lectures and simulations. In order to ensure the most appropriate contextual knowledge, 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, and invitations to guest speakers to bring the reality to the classroom (either in-person or via Skype) added to a collaborative global learning experience.

Fulfillment of student objectives indicated that the university worked towards creating and revising programs to develop learning and study skills that contribute to success during college and as preparation for entering the global workforce. Additional preparation for employment was a priority. The development of learning skills should be the foundation for building a combination of managerial and interpersonal skills that employers seek in prospective employees.

**Potential employers in the global marketplace search for professionals who are not only proficient in technical skills for a specific area, but also have the ability to demonstrate interpersonal skills, diverse leadership, diverse teamwork and diverse management skills**

## 15. CONCLUSION

Obtaining a college degree from an accredited University is just one-step to achieve on the path towards a successful career. Potential employers in the global marketplace search for professionals who are not only proficient in technical skills for a specific area, but also have the ability to demonstrate interpersonal skills, diverse leadership, diverse teamwork and diverse management skills. A global learner-centered approach towards students would foster their interest in developing and continuing to build on essential skills throughout adult stages of development. However, a balanced approach will also include recognition of the unique challenges associated with non-traditional students and academic agents who are in the process of

transitioning to non-traditional facilitation methods. Understanding the needs of non-traditional learners and addressing these needs as a teacher represent a critical set of skills for all educators.

The authors of this article recommend continuing to monitor the international surveys provided by the OECD with additional updates scheduled through 2019. The reports include information from 40 countries that are associated with the PIAAC. Measurements within the international surveys focus on specific cognitive and workplace skills that individuals need to participate in society and for economies to prosper.

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