REFLECTION ARTICLE

Trends in Education Systems in the 21st Century

Tendencias en los sistemas educativos del siglo XXI

Tendências dos sistemas de educação do século 21

JAYSON ANDREY BERNATE* iD

* PhD student in Education Sciences. Research Professor at the Minuto de Dios University Corporation, UNIMINUTO. Bogotá, Cundinamarca, Colombia https://orcid.org/0000-0001-5119-8916

ABSTRACT

This article of theoretical reflection arises from the academic space of trends and challenges of the educational systems of the Doctorate in Educational Sciences of the Universidad Metropolitana de Educación Ciencia y Tecnología (Umecit), which aims to consider the conceptual aspects of the educational trends of the XXI century in different contexts. The methodology developed was qualitative-reflexive. The main findings are focused on the explanation of the main methodologies and didactics used in Latin America, locating the actors directly involved in the educational act as promoters of the social and cultural systems of an emerging community of knowledge and their own needs, generating transformations at the political and governmental level in the nations. As a conclusion of this academic reflection, the educational actors of the emerging technological learning pedagogies must be constantly immersed and integrated into professional and academic training. In this way, they will probably be able to respond to the challenges and needs of society and the current community in the different educational institutions.

RESUMO

Este artigo de reflexão teórica surge do espaço acadêmico de tendências e desafios dos sistemas educacionais do Doutorado em Ciências da Educação da Universidad Metropolitana de Educación ciencia y Tecnología (UMECIT), que visa considerar os aspectos conceituais das tendências educacionais do século XXI em diferentes contextos. A metodologia desenvolvida foi qualitativo-reflexiva, os principais achados estão voltados para a explicação das principais metodologias e didáticas utilizadas na América Latina, localizando os atores diretamente envolvidos no ato educativo como potencializadores dos sistemas sociais e culturais de uma comunidade emergente de conhecimento. e próprias necessidades, gerando transformações no nível político e governamental nas nações. A conclusão desta reflexão acadêmica é que os atores educacionais das pedagogias de aprendizagem tecnológica emergentes devem estar constantemente imersos e integrados na formação profissional e acadêmica, pois assim provavelmente serão capazes de responder aos desafios e necessidades da sociedade e da comunidade atual em diferentes instituições de ensino.

Introduction

Undoubtedly, education at all levels requires a social transformation. Therefore, it is worth highlighting ten trends of the 21st century, which as educators must be kept in mind for such transformation: empowered students, happy and healthy people, lifelong learning, entrepreneurial spirit, program, technology inclusion, gamification, social responsibility, collective power and Agora.

On the other hand, it is important to mention that the above must be articulated with a nation's budget. These improvements at the economic level generate that the learning levels in primary, secondary, university and extra-age adults are optimized in all social and cultural spheres. However, it should be noted that an adequate educational infrastructure generates pedagogical and curricular improvements in the processes of learning quality, not leaving aside the constant teacher training, linking these economic and budgetary contributions to the transformation of laws and decrees that allow this not to remain on paper, but to be truly taken to the classrooms of daily life in the different educational institutions. As Melo, Ramos & Hernández (2017) point out:

> In order to achieve an improvement in academic results, State policy measures and institutional strategies must take into account, in addition to the criteria for hiring teachers, the definition of incentives for research and administrative and financial aspects. These mechanisms make it possible to counteract the negative impact of students' socioeconomic conditions and other environmental factors (p. 103).

As a result of the educational transformations in the different nations, the need to be leaders in the 21st century has arisen. This implies facing social, cultural, generational, ethnic and, above all, technological challenges. Technology changes by leaps and bounds day by day and education at all levels must adapt to these changes, since it needs to influence the dynamic actors of society. Today it is not about transferring knowledge, but about being an influencer of thinking and dynamic learning within the pedagogical and didactic framework. Educational institutions and teachers must go beyond the simple teaching-learning act, since these forms are changing and fluctuating, and today's young people do not read, instead they go to *google* and *youtube*. For this reason, the curricular and methodological components of teaching must undergo severe adjustments and transformations in order to adapt to the needs of the social reality experienced by the actors directly involved in the educational act. As recommended by Hernández, Gómez & Balderas (2014),

> the process of including ICT in curricular activities must be accompanied by creativity to design the activities to be carried out, in order to achieve the attention, motivation and active participation of the student in the development of the class, taking into account that the teacher is the manager of the new learning environments, in charge of creating and innovating them, incorporating the technological means (p. 18).

Technological Trends in the 21st century

A clear example of technological trends in the classroom is the gamification model, which uses the game as a tool for the conceptual development of students in the classroom and any educational level can apply for this. Explained from the R.A.M.P. model (Model of intrinsic and extrinsic motivations) created by Andrezj Marczewski, which consists of developing in the students four inherent elements in the learning process. Educational activities use play as a primary element in order to achieve the knowledge to be promoted, based on the interest and motivation of each student. This means that, without realizing it, the student develops the following elements: The first of them is relationship, which consists of generating a sense of belonging in what he/she develops, social status, connections and sharing. As a second element, purpose, which forms and enhances altruism and common sense in the actions of the game so you can help yourself and others. The third element is the sample, which consists of learning and improving your performance in something specific and thus achieve high personal performance. The last element is autonomy, which generates in the student freedom of creativity in their tasks, but fulfilling roles of responsibility and kinesthetic control.

As can be seen, Game-Based Learning (GBL) enhances many elements in the student population and as an educational trend in the XXI century frames an option for modern educators, since it serves as a pedagogical strategy to respond to the social and cultural challenges of society. It is also an invitation to students to choose the most difficult path and not the easiest, since if they choose the most difficult, the learning outcomes

will be much more significant.

As Proposed by Zepeda, Abascal & Omelas (2016),

> gamification helps to reflect on the didactics used in a class and experiment with new playful ways that allow to improve and make adjustments in the group leadership, ideas of presentation of theory, practical activity, consider new ways of evaluating and consequently improve school performance (p. 323).

Another trend widely used by modern pedagogues is the flipped classroom model which articulates the processes in the trends of the 21st century. This model originated in the 1990s and arose from the needs of the society of the time. It contains four pillars: the first is the flexible environment, which consists of the educational institution having specific broad areas of learning and being able to fully develop in each of them. The second is the learning culture, which consists of the student not learning for a grade or for a percentage or academic weight, but to find his or her own interest in each activity. The third is directed content which consists of making the teacher's role active in the classroom and generate leadership in the topics of interest for the students and do not restrict the topics or segment them. Finally, the professional facilitator, who always seeks the evolution of learning and that it is in constant change in favor of daily improvements. It is a comprehensive, dynamic, and effective model which frames an integral learning inside and outside the classroom, for this reason, Torrecilla (2018) recommends: Compared to the more traditional model, the teacher works more closely with the students and can have a broader knowledge of what their needs and skills are, personalizing the teaching-learning process (p. 18).

Consequently, Canadian professor Ken Baver of Tecnológico de Monterrey suggests four keys so that the model is fully fulfilled, which consist of active learning, it is not necessary for the teacher to have control of the classroom. The next is to know students, that is, to interact more with them, get to know their likes, their fears, their dreams, their jobs, etc. The third key is global connectivism and with it, he emphasizes that students share their tasks, their main ideas and their bibliographic queries through blogs and dynamic navigating academic social networks. Finally, trusting students, removing impediments, and promoting self-assessment as an inherent learning process.

Challenge-Based Learning

The act of educating is something complex and systemic, it demands a commitment not only from the educational actors, but also from a whole political and social system. That is why modern trends are so important to sustain and articulate this complexity. It is worth mentioning challenge-based learning (CBL) as a representative trend in the current and postmodernist world, since it is a system that involves stimuli and emotions that lead the student to a challenge to be carried out; it involves him/her actively in a real and relevant problematic situation, linking the environment as a challenge, developing the implementation of a solution. That's how Olivares et al. (2018) define CBL as a learning opportunity in which students collaborate, under the guidance of the teacher, to learn about relevant problems by proposing real solutions (p. 232).

It should be noted that this learning is based on the schematic functioning of the real world in the making and acting centralized in the student, since it articulates life experiences and develops the particular and significant interests to give practical meaning to education, while enhancing competencies such as collaborative and multidisciplinary work, decision making, ethics and leadership. Indeed, it is an innovative trend of the XXI century, an option for the political and educational systems of today. As Ramírez (2020) argues

> that educational innovation appears as a pending issue on the agendas of educational institutions at an international level. Current educational policies highlight the importance of educational innovation as a key element for improving educational quality and social development (p. 2).

Some of the benefits for students in such learning are that they are involved both in the definition of the problem to be addressed and in the solution, they will develop to solve it. Achieving a deeper understanding of the issues, in order to learn to diagnose problems pertinently before proposing solutions, as well as develop

creativity, generating awareness of a given situation,innovating innovative and scientific research processes for their subsequent materialization, responding to the challenges of society. As Waldman & Gurovich (2005) propose:

> To respond to the challenges posed by an increasingly heterogeneous society, which demands greater efficiency in the training of its citizens, and which, at the same time, demands a quality university system, based on the right to equal opportunities. (p. 22)

Undoubtedly, educational institutions must generate these well-grounded leverages in order to improve the quality of teaching-learning processes, converting and transforming society. That is, that these students who are being trained in the different undergraduate and postgraduate programs respond to the challenges demanded by society in a timely and effective manner. As Enríquez (2006) puts it: That students leave college carrying not only their graduation diplomas but also, knowledge relevant to living in society, along with the skills to apply and adapt it to an ever-changing world (p. 12).

Educational Management

What is currently needed in the educational institutions that train undergraduate and graduate students is the permanent updating of programs and curricula that respond to the real needs of today's society and thus avoid the constant fractures between education and socio-cultural life. In the twenty-first century, the only way to strengthen the identity and self-determination of a country is through education, this is the only way.

On the other hand, it is necessary to mention the negative aspects that influence the development and impact of educational trends in Latin America. One of the most influential in this process is privatization. This phenomenon has been enhanced and framed from the neoliberal model of political systems, which has generated that the social gap of inequality is wider in low-income youth. This must apply for long-term economic credits with very high interests to access higher education. These difficulties are cited by Linares (2016) as: The hindrance in the regulations, entry requirements, programs, approaches, trends and models that these countries have developed for their adaptation to neoliberal and globalization models (p. 43).

However, when the student completes the process, he/she becomes a graduate of the service provided and to a certain extent becomes an evaluator of the impact of the program and its incidence on the quality of the same, judging the investment and the time spent, giving some response to the competitive labor horizon as explained by Villanueva (2020):

> The degree of the user's perception of the service is what determines its quality and whether or not the acquisition of knowledge in a specific institution grants social recognition for having a differentiating factor that indicates that this service is of quality (n.d.).

For this reason, when aiming at quality education systems, it is important and pertinent to generate management strategies for teacher training and updating. This allows them to enhance their pedagogical and methodological skills in order to massify their educational act in the classroom and especially outside of it, in order to provide quality and comprehensive education in all its processes. Likewise, this will allow to get closer to the ideal goal of training professionals who can respond to the needs of today's society. As Rico (2016) socializes:

> The management of teacher training processes is necessary in any institution in order to have a quality education. Not only that, the market demands that the universities in addition to having excellent infrastructure, require that value is given to the work of teachers, both economically and value to their work, ensuring opportunities for their professionalization, training and performance within the university. In this way, the needs of the teaching staff are being met and the needs of the institution and its goal of achieving quality education are being met (p. 58).

It is imperative to start working directly in the management of educational processes, since it is there where the scope and impact of educational needs are planned, for this reason, school leadership plays a preponderant role in these actions of continuous improvement in these processes: Highlighting the the optimization and expansion of infrastructures, development of new Educational Programs, greater

family involvement, organizational improvements in planning, teamwork, ICT, teacher training, etc." (Rodríguez, Ordóñez and López, 2020, p. 289).

The above becomes educational reforms that affect social systems, generating in turn certain tensions at the political and governmental level, as is the case in many Latin American countries, especially in Colombia, where unfortunately economic resources are diverted and public resource scandals are the order of the day, originating in society much discomfort and unease towards these political systems (Castaño & García, 2012).

Reinforcing the above, Waldman (2000) states that: The main challenge for higher education is to transform itself institutionally and academically in order to meet, in a timely and efficient manner, the demands of a globalized society that demands lifelong learning. (p. 241). The challenge of education is not only to address social, educational and cultural issues, it goes much further and, whether we like it or not, it is articulated with politics, due to budget issues and regulatory facilities that imply constitutional reforms in each country. Therefore, it is pertinent that as a nation, the different actors in the educational context are encouraged to transform their communities in favor of local, regional and national progress of the institutions, as recommended by Álvarez *et al*. (2015). An educational leader must, as a first instance, have the fundamental knowledge in administrative issues that support its proper management, looking at the school as an organization that requires a relevant institutional projection. (p. 66).

The importance of having leaders prepared and trained in education is a determining factor when it comes to demanding optimal results and in accordance with the needs of all institutions. They are the ones who will mark the starting line and the route to follow to articulate all the pedagogical and methodological work of the institutions and this will depend on the success or failure of it. As proposed by Casanoves, Küster and Vila (2019):

> Therefore, it is considered that managers should improve their services and facilities and, subsequently, incentivize internal capital with training and salary improvement programs, so that they can develop their work with more passion, be more innovative and the results can be perceived by the students. (p. 123).

In addition to the demands of today's educational service, the digital era we are living in must not be left aside, since it is a determining influence in order to achieve the results that today's educational trends must reach, as Ricoy and Martínez (2020) argue: The knowledge society demands new challenges that must be faced in a resolute manner and taking into account the dominance of digital technology, particularly in adolescents. (p.479). For this reason, the legal and state bodies that govern these educational systems must be aware of the urgency that such a phenomenon demands.

Inclusion cannot be left aside as an urgent factor of integration and articulation to all gestational processes and educational planning, since many institutions in Latin America are until recently rethinking how to respond to this social need, and it is there where another trend such as equity enters into the assertive action of educational systems, both in the pedagogical and in the administrative and legislative part, as Sanchez and Manzanares (2013) deduce:

> Equity as educational inclusion, with emphasis on the redistribution of educational resources, generation of learning situations adjusted to the learning rhythms and expectations of students from an inclusive approach. *Inputs* and *outputs* are beginning to be considered as elements of equity involved in the educational process. Thus, it is understood that education must be of quality for all in a context of equity, where social cohesion must govern the function and mission of education systems (p. 24-25).

At the same time, educational research should be a dynamic role within the educational act, since it is the teacher who must lead the way for the student at all levels in an efficient manner, which will demand a reflective and responsible commitment to the achievement of historical and social transformation, in order to optimize the quality of life (Hernández, 2009).

All this leads to a more comprehensive and representative teaching-learning process in terms of social aspects, so that the pedagogical actors experience it and understand the true meaning of educating (Bernate, García, Fonseca & Ramírez, 2020).

Conclusions

The educational trends of the 21st century must be articulated with the political and governmental systems of the countries; if they go against these, it will be very difficult for them to be effective and to respond to the social needs of the communities to be educated.

The curricular plans in the pedagogical components must break the paradigms established during the history of their gestation, so that they can undergo transformations pertinent to the needs of the social actors of the educational community and achieve a positive impact on their own needs.

Information technologies must be at the service of the teaching staff, students, and administrative personnel, so that each and every one of those involved in the teaching-learning process can be reached, constantly immersing themselves in the updating of modern and didactic strategies, generating motivation and interest in learning, transforming the meanings of the classroom, since without emotions there will be no learning.

The economic budget for education in Latin American countries should be a major investment, compared to other governmental interests, because if it is not attended with commitment and dedication to society, later these may become irreversible social problems.

Awakening entrepreneurship with a sense of social responsibility in the educational community can bring about cultural, social, economic, and political development in a country, which in turn has positive consequences for the nation, leading it to the constant evolution and transformation of its legislative and governmental systems, optimizing its critical social development.

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