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## **Revista Electrónica de Investigación Educativa**

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### **Descubriendo supuestos subyacentes sobre la educación y tecnología en los esfuerzos de reforma educativa Una conversación con el Dr. Larry Johnson**

### **Uncovering Underlying Assumptions Regarding Education and Technology in Educational Reform Efforts A conversation with Dr. Larry Johnson**

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#### **Resumen**

Los sistemas educativos de alrededor del mundo, y específicamente en los Estados Unidos de América, han estado esperando esfuerzos de reforma genuinos por largo tiempo ya. La tecnología es frecuentemente percibida como una panacea y como un instrumento crucial en cualquier esfuerzo de reforma educativa. En conversación con una de sus alumnas, el doctor Johnson discute que los presupuestos encubiertos en nuestras prácticas educativas deben ser seriamente revisados antes de que sea considerada estrategia tecnológica alguna. Nuevos entendimientos, no mera información, es lo que las escuelas necesitan alcanzar para transformarse. Al concluir, el doctor Johnson provee

dos breves ejemplos, uno de los Estados Unidos de América y otro de México, donde enfoques hermenéuticos han sido utilizados para esfuerzos de reforma educativa.

*Palabras clave:* Reforma educativa, tecnología, hermenéutica.

### **Abstract**

Educational systems around the world, and specifically in the United States, have long been awaiting for genuine reform efforts. Technology is often perceived as a panacea, if not as a crucial instrument in any educational reform effort. In a conversation with one of his students, Doctor Johnson discusses how the underlying assumptions embedded in our current schooling practices need to be seriously reviewed before any technology strategy is considered. New understandings, as opposed to mere information, is what schools need to reach in order to transform themselves. Finally, Dr. Johnson provides two brief examples, one in the United States and another in México, where hermeneutical approaches have been used for educational reform endeavors.

*Key words:* Educational reform, technology, hermeneutics.

El Dr. Larry Johnson es profesor de educación básica por la Universidad Estatal de California, maestro en computación y doctor en educación por la Universidad de San Francisco. Su tesis doctoral sintetiza sus tres áreas de formación y lleva por título: "A critical exploration of computer technology, culture and literacy development among students in Venezuela, Guatemala, México and California". Actualmente, es profesor del Departamento de Organización y Dirección de la Escuela de Educación de la Universidad de San Francisco. Entre otros cursos, ha impartido las materias de "Antropología de la educación", "Escuela, comunidad y sociedad" y "Tecnología y reforma educativa". También se ha desempeñado como consultor sobre tecnología educativa en escuelas asociadas a la Coalición de Reforma Escolar de la Bahía de San Francisco y ha sido consultor de 15 escuelas que se han involucrado en procesos de cambio escolar.

**Gabriela Melano:** In the past decade, it seems like technology is recurrently presented as a panacea for tackling with the multiple obstacles that educational reform is dealing with all around the globe. Even though this may be intriguing or even fascinating, yet, there may be much to question before much energy and money are spent. In fact, much may need to be reviewed about what education is in the first place. What would you share with educators from México regarding your personal thoughts and professional experiences in the field of Education Reform?

**Larry Johnson:** Well, let me start by saying that I have been fascinated by the work of Ivan Illich for a long time and that his ideas have influenced my own thinking about Education and Learning. Also, that when I did my research in México, I found marvelous people involved in Education and their ideas have intrigued me for a long time. They challenged my thinking on the possible use of technology and what they needed to consider before the use of technology was

brought into Education. But, let's get into that later because it raises questions not only about technology, but also about Education.

A lot of what I do is to create dilemmas out of which may come something new, and/ or to return to something from our past regarding transformation in the field of Education. Underlying all of these dilemmas is where positivism has put us in Education, which was exacerbated by the industrial revolution and solidified, carrying itself into Education in all industrialized countries, or those that are becoming industrialized. This has been much more pointed in the United States, stemming out of radical individualism one dilemma is the one of isolation which is seen in the classroom where the emphasis is frequently in the individual student acquiring knowledge. Therefore, the whole curriculum and educational practices focuses on the individual student acquiring information and knowledge.

And much more concerning dilemma appears by having computers and the "Information Age" be the emphasis. So, acquisition of information becomes the center purpose of education, which is way too superficial for what the world is needing nowadays. Information is not even getting to knowledge, and where we actually need to get to is understandings, which are much deeper than knowledge, and a long way away from information.

An underlying assumption, if not the underlying assumption, of focusing on mere information is the notion of isolation. I believe this is a place where Hermeneutics is very important because it helps us to get to what is understanding and what is entailed in getting to understanding. I know of initiatives within, at least, the past decade if not more, that are leading us in that direction at least, although the background is certainly earlier than that, such as the work of Vygotsky.

**G.M.:** In other words, if we were to focus in getting to understand what is entailed in acquiring knowledge, as a socially constructed phenomena, we would not be as isolated and we would be much ahead in achieving educational transformations.

**L.J.:** ...and that is important because it is a recognition that this is something we need to do in concert with others... it isn't an individual effort. Plus, going even deeper, in dialogue with others is how intersubjective construction of understandings happen. Therefore, the end of education is not in knowledge, but in understandings.

**G.M.:** Yet, this clearly does not impede in any fashion to access information, particularly in learning how to access information, nor does it lack an acquisition of knowledge to be critically analyzed and meaningfully appropriated by all of those involved, right?

**L.J.:** Exactly! ...so, part of what I am doing dwells on different levels: it is in helping schools figure out different practices in the classroom, but also to change the practices with each other so that it becomes an intersubjective approach all through the whole system. This means that we are figuring things out in the

classroom, in curriculum development, in systems, and all as an intersubjective approach, which is a dramatic approach.

**G.M.:** ...and if we just changed that: how we relate with each other, which is so deep in itself ... if we were to genuinely listen to each other, the system will start changing by itself anyway...

**L.J.:** Yes... and you mention listening, that is crucial because teachers have not been accustomed to listen, they are the ones who are speaking, not the ones who are listening. Teachers also need to learn how to listen critically to each other as much as their students because students only learn when its connected to what they already understand. We all learn through a metaphor. Therefore, teachers need to listen to that which is already part of their students world. Otherwise, the educational process will be unsuccessful, limited or accidental. So developing that skill of listening to students is crucial.

**G.M.:** It reminds me of the work of Harvard Professor, Dr. Eleanor Duckworth, who fosters the practice of providing the students with an exploratory task, and it is the teacher's role to try to understand how their minds are processing it, either individually or in groups. Out of those observations, the teacher might bring next class yet another intellectual adventure for her or him to observe and carefully listen to.

**L.J.:** There is also another deeper level about listening, not only listening to the experiences, but also to the underlying assumptions. We need to uncover what our shared values are, our shared understandings are and where our understandings may *not* be shared. We need dialogue about it and figure out what we are going to do about that, and that's when our work becomes much more powerful. That whole area of listening is crucial for school reform.

**G.M.:** How does culture fit into all of this?

**L.J.:** Another underlying assumption that needs to be uncovered is the challenge in Education Reform as it pertains to culture. This involves the sharing of space and time which is moving more towards a mono-culture, that is Caucasian middle class culture.

There have been and continue to exist efforts regarding multiculturalism, but they are by in large cosmetic, Band-Aid answers. They avoid the real issues which are underlying assumptions, underlying values which come up in daily interactions between teachers and their students as well as between students among each other.

I believe that if we are to genuinely embrace a multicultural education framework, we should at least have a different idea of how classrooms look like. This means that, as opposed to having students' desks in straight rows, teachers location at the

front of the classroom, right by the black board, classrooms should become active spaces, even 'noisy' spaces which would foster students talking to each other and, thus enhancing the chances of having deep conversations within the school environment.

**G.M.:** Could you give us an example of how that might look like?

**L.J.:** Let's see. I don't particularly like this one, but Alan November uses 'Kinkos' as a metaphor, where people can come, have plenty of tools and technology available and free flowing opportunities to interact with each other. By the way, Alan November is a consultant and teaches nationally on issues of Education and technology. He is a consultant in major projects embedded in creating learning communities where learning is happening all over the places, and not just in schools...

Another example might be the internet. Although I am personally not totally convinced, could it be used as a way to create these dialogues? Maybe, but it still makes it difficult to demonstrate our own identity.

**G.M.:** In a way, it sounds like he is following the steps of Illich...

**L.J.:** Yes, in many ways it is about the de-schooling society, the school itself is the obstacle to learning. The one other aspect which I think has been an obstacle is in terms of how we explore ideas, and that emerges from positivism, is the scientific method. It is a mind set that alleges discovery of knowledge based on a path to prove something. Set on two opposing poles, or a limited amount of options, the scientific method 'explores' which of those are true or not. In other words, it is set up to prove what is already imaginable to the investigator. Unfortunately, this approach has permeated our whole society, not just the natural sciences, but the social sciences as well, and politics, as well as our educational system.

In contrast, and that is where Hermeneutics brings a new light, if there was a true disposition for inquiry the possibilities are vast and even unimaginable. In true inquiry the dilemma that we are confronted with is that we need to figure out how we can explore new ideas without constraining our vision from the very start. That's a completely different mind set...

**G.M.:** ...and that does not mean that you will not find out or discover anything, or that it is just a matter of speculation...

**L.J.:** ... yes, you will find out *enormous* things, *but it is not predetermined* what you will find out...

**G.M.:** When you said 'mono-culture' I thought of many things. What did you have in mind?

**L.J.:** It refers to the vast majority of the Education in this country, although there are exceptions. It refers to being taught to a white perspective, from a white perspective, within a context of a white perspective, not only regarding the curriculum designed around a European perspective. It is also that the teacher comes from a white perspective and has very little understanding of any other. And the Caucasian middle-class perspective worked well for students belonging to that culture, but not for other students. And we are perpetuating this...

One example of the perpetuation of that is we give lip service only to learning other languages. Students are supposed to take two courses at the end of high school? *How on earth can we expect any level of fluency with that level of instruction?* And what that says to me is that what we really value is only English and that's it! We really don't value any other language and culture is transmitted through language. If we really valued other cultures we would like students to learn three and four languages, not just so that we could communicate with people from other cultures.

Another issue is that we see language as a tool in the sense that they may allow us to communicate in Spanish, or Chinese, or whatever, so, we can transmit or gain information. Yet, language isn't valued as a way of understanding another culture and a different perspective. Moreover, different perspectives inform our own culture and our own understandings. If we really value that, we would set in place policies and practices for students to learn a variety of languages and within that the variety of cultures that it would bring it. And that's why I believe that the school system in the United States is set up to maintain and emphasize only one culture.

**G.M.:** One concern I have within the current 'globalization' process is not that much that English is clearly a second language for the majority of the developing countries, but more so that when it comes to English we only get the Northern version of it as British and American English are. Otherwise we would also be taught in reference to African authors, about Indian cultural aspects or even regarding Australian history for that matter, and because language brings a culture with itself it is concerning that we are getting only the Northern perspective.

**L.J.:** And the internet is a part of this, in fact, it is a huge part of this. The possibility that we are drifting to a mono-cultural world, what globalization is doing. I have seen it in Vietnam and Thailand, where the media is bringing very powerful in transmitting American consumerist values, and that is only the beginning. It is a terrifying beginning of what we might wound up being a mish-mash of American consumerist, radical individualistic, positivist ideas. This deeply concerns me and that is also why I have such a passion for Education Reform. I believe that this is at least the beginning, to start getting people to engage with each other differently, and start to change the way of thinking and the way of being.

**G.M.:** Could you give us some examples that may allow us to ground these ideas?

**L.J.:** When I was doing my dissertation, I found two different approaches in Guatemala and México.

In Guatemala, at the time I did my research, there were only three schools in the country that were using computer technology to any degree at all. And, I had a conversation with the Principal of the largest of these schools in Guatemala City. I got to see their set up and for the time, they really had an elaborate set up with the most modern of equipment, designed programs, teachers who were very knowledgeable on how to use this equipment, everything. Yet, as I explored with him about how cultural values may be transmitted through the use of technology and whether that was a concern for him I was distraught. He said that not only was that not a concern for him, but more so that “that is what we want! Parents who send their kids to our school don’t only want them to get a good Education, but they want them to be Westernized, they want them to be Americanized, and we believe that the way to do that is through technology”.

In México, it was very different, both at the university and at a practitioner level. I met with Alfonso Ramírez Ortega and with his associates who were developing Centro Tezozomoc, a center for the exploration of how to use technology in ways that builds on the Mexican culture, not destroy it.

This was a time where México was having numerous set backs and huge amounts of moneys that were allocated for schools and then programs were abolished even before they ever happened. But this was an attempt to think about and study the past approaches before we really put the technology into the schools, and the person they had contracted to put together these centers was someone with whom I had a conversation with, Manuel Gándara Vásquez, an anthropologist who then went into computer technology and that was working in the computer area. So he had a background in anthropology and technology-- and knew about Gadamer as well.

I visited the center which was established in Mexico City and their approach was quite different. They were very concerned about Mexican culture and on how this technology corresponded with Mexican culture and how could they bring it in a way that respected it.

Therefore, one of the things that was marvelous was that they discovered that if they wanted to bring this technology into the schools, what they had to do first was to bring it to the mothers because of Mexican family structure. They considered how crucial family is to culture, and how crucial mother is to that. So, they wanted to make sure that they did not create a gap between what the kids knew and what was totally unknown to the parents. They knew that the fabric of the family was crucial to the culture.

Next steps were setting-up as pilot sessions, projects in that center that were bringing the mothers to the session and it wasn’t just to teach the mothers how to use the computer. What they did was to set-up the sessions in the context of nutrition, so that they could track their daily nutrition, meals and so forth.

Another fascinating thing that they had was this “Kid Pix Program”, which is an Art children’s computer program. I have never seen it done so well as in this program because what frequently happens is that kids are taught how to use each of these tools and in the process they become constrained to what they have learned. So, before they introduced this to kids at all, they brought in artists, real artists, and they gave them a short introduction to the program and allowed them to explore with these tools. And what they came out with were marvelous pieces of Art, and printed them out and posted them all over the area. Then, when the kids came in to explore the program they had these varied images, so they were not confined to these limited options. They saw all these magnificent possibilities and created from people within their own culture.

**G.M.:** This certainly sounds like a terrific example of School Reform Efforts in México itself. Would you like to share some examples of School Reform efforts from a transformational point of view in your work in the States?

**L.J.:** Sure! I am working with five different schools in the San Francisco Bay Area, and it means working differently in each case, in every case it raises enormous challenges. At the same time I have seen some breakthroughs that are really hopeful.

For example, in one middle school which has been engaged in this effort deeply for two years. But, the first year, they came up with a way to get a leadership team started. They identified five people for the leadership team and arranged it so that those five people had an additional period a day that they could spend together. They did not necessarily met every day, but they met about three times a week. Initially, they had some very clear ideas of what they wanted to do and throughout a year that changed quite a bit. It took them about a year to learn what a leadership team was all about.

But one of the things that was very valuable was one person that they met with, Larry Huggens who provided some professional development for them around meeting management and facilitation, which was very important.

With training, commitment and effort they actually designed a collaborative Summer Institute with another middle school. The Summer Institute helped focus on issues of literacy, culture and leadership, part of which was the parent and student voice. This year they decided that they would have again that leadership team, but each of them would take a focus of their work and each of them would facilitate and that they would do some action and some research around that theme. One of them is literacy, one of them is equity, one of them is parent and student voice, one of them is the issue of time and different ways of scheduling and then there is a component that is data. My job was facilitating all of this process.

The other thing which they are engaged in doing, and I have been assisting them in it, is to design action plans around these themes; this also means designing research around them so that teacher-research came about. So that may mean



assisting them in what data they may need to gather, what literature they may need to read, what people they may need to talk to in terms of students and parents, etc. Additionally, it meant accompanying them during their action stages in terms of documenting the experience as they move forward and that they get all of these pieces together in a cycle of inquiry, collaborative inquiry. An aim is that different systems are being set-up around important things that need to be changed in the school in order to allow interactions that may lead to intersubjective construction of understandings. In this fashion, shared understandings may develop so that all of our students can be proficient readers, writers, speakers, listeners...

**G.M.:** It sounds like a blooming dream...

**L.J.:** The dream is to make sure that parents of all cultures are not only welcomed, but even invited in order to become genuine partners, creating a community that is invested in the Education of *all* students and not only *my* student.

Even though this is just the beginning, it is an exciting one, it is the beginning of what schools could become. One of my roles is to be supportive of the leaders because there are times were there is lots of turmoil, and it is very easy to get discouraged. It is not an easy journey because what you are touching on is what is below the surface, underlying assumptions.