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The Critical Pedagogy that Transforms the Reality

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Abstract

Authors, teachers, students, family members, and other citizens from diverse cultures, gender options and countries have been and are developing critical pedagogy all over the world. However, there are authors of “critical pedagogy” who use this label for luxuries and egotism but who have never transformed nor supported the transformation of any school or educational project. This article presents four criteria to distinguish between the critical pedagogy that transforms reality and the “critical pedagogy” that only benefits those who use this label. The first criterion is the egalitarian dialogue that critical pedagogy authors use with very diverse citizens to achieve extensive and profound real transformations. The second one is the social impact of their work on society, especially on the oppressed, overcoming inequalities and improving their conditions of life. The third one is the equality of results of the oppressed in literacy as well as in sentiments and values, without segregating. The fourth one is the critical pedagogy style versus the Althusserian and market styles, highlighting the scientific and theoretical rigor of critical pedagogy authors opposed to the lack of theoretical basis of authors of “critical pedagogy”.

Keywords: critical pedagogy, oppressed, social impact, egalitarian dialogue, transformation

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Resumen

Autoras y autores, profesorado, estudiantes, familiares y ciudadanía de diversas culturas, opciones de género y países han desarrollado y desarrollan pedagogía crítica en todo el mundo. Sin embargo, hay autoras y autores de "pedagogía crítica" que utilizan esta etiqueta para el lujo y egoísmo pero que nunca han transformado ni apoyado la transformación de ningún proyecto educativo. Este artículo presenta cuatro criterios para distinguir entre la pedagogía crítica que transforma la realidad y la que sólo beneficia a quienes utilizan esta etiqueta. El primero es el diálogo igualitario que las y los autores de pedagogía crítica utilizan con ciudadanía muy diversa para conseguir transformaciones reales amplias y profundas. El segundo es el impacto social de su trabajo en la sociedad, especialmente en los grupos oprimidos, superando las desigualdades y mejorando sus condiciones de vida. La tercera, la igualdad de resultados de los grupos oprimidos tanto en alfabetización como en sentimientos y valores, sin segregar. La cuarta, el estilo de la pedagogía crítica frente a estilos althusseriano y de mercado, destacando el rigor científico y teórico de las y los autores de la pedagogía crítica frente a la falta de base teórica de las y los autores de la "pedagogía crítica".

Palabras clave: pedagogía crítica, oprimidos, impacto social, diálogo igualitario, transformación



In his first time in Barcelona, Freire said: *Now that I am saying words of benevolence and acknowledgment, I would also like to highlight here how much I owe and continue owing, in the process of my permanent training, not so much the academic practice I have had, as much as the workers of fields and cities from different parts of the world; peasants and urban workers, men and women with whom I'm learning, and in learning with them, I am teaching in turn* (Freire, 1989, p. 102). With this egalitarian dialogue, Paulo Freire created and implemented a literacy program in Recife which achieved extraordinary results among the oppressed. His literacy method, created in a continuous and egalitarian dialogue with the people becoming literate, oppressed people, was recreated and implemented in practice in many countries and projects. It has achieved results that are a key part of the transformation of education and society, which is the purpose and the meaning of critical pedagogy. His theory of dialogic action, his pedagogy of the oppressed, was born and developed in contrast between the best scientific and theoretical contributions then available and the practice that was already transforming reality.

For more than a hundred years, authors, professors, teachers, educators, citizens, workers, family members, students from diverse cultures, countries, genders have been developing critical pedagogy in egalitarian dialogue among them and transforming education and the world. The revision of literature of the authors of this article have found four criteria to differentiate critical pedagogy from the use of this label for publications that do not transform any school or educational project: egalitarian dialogue, social impact, equality of results, and rigorous theoretical basis.

Critical pedagogy was born and developed in the 20th century to contribute theoretical and practical elements to this real transformation of education and society. In his first minute in Barcelona, Freire asked Flecha about Ferrer y Guardia. Paulo is the main author of critical pedagogy and he recognized the previous excellent work made by authors like Ferrer y Guardia or Myles Horton; he also recognized the theoretical contributions of the Frankfurt school critical theory. Ferrer y Guardia created a school, the Escuela Moderna [Modern School], which also achieved extraordinary results in practice. As in the case of Freire, this concrete project created personally by Ferrer y Guardia was replicated and recreated in a number of countries and projects. In 1932,

Myles Horton founded Highlander, a popular school project that has promoted and collaborated in very relevant educational and social transformations highlighted by the book "We make the road by walking" (Horton & Freire, 1990); this project has not had replicability in other contexts but has been a source of inspiration for transformations in other places and countries. Rabindranath Tagore, the first non-Western Nobel Prize winner in literature, created in India the school that has succeeded in educating students as brilliant as Amartya Sen, who has made it clear that the achievements of science, culture, coexistence between cultures and gender equality do not come only from the West, but in many cases have occurred before in other places such as India. Authors of critical pedagogy have published about transformative schools, for instance Apple and Beane (1999).

In the last quarter of the 20th century, and even more so in the 21st century, the role of women in the development and improvement of both the theory and practice of critical pedagogy has finally been highlighted. The egalitarian dialogue between men and women of very different academic levels, socioeconomic status, cultures, gender options and professions is achieving more extensive and profound transformations of reality than in the past and giving visibility to other women who have preceded them, such as Sappho, creator of the first known women's school 26 centuries ago.

One of the projects developed by this egalitarian dialogue, the transformation of schools into Learning Communities, has achieved not only a previously unseen improvement in the results of the oppressed population, but also the recreation of the project in more than 10,000 contexts in very different countries and situations. This project was initiated by Ramón Flecha in La Verneda (Sánchez-Aroca, 1999) and is recreated by many and diverse scholars in different countries like Roseli Rodrigues de Mello, Maria Vieites and Rocío García-Carrión. There are authors who, without participating directly in these projects, are supporting with their writings and statements those who are transforming reality and, therefore, are also making critical pedagogy with these contributions.

In the literature available today on the subject, there is great confusion without clearly differentiating critical pedagogy from other approaches that are presented under that title and that have no impact on the transformation of reality, but only on the income, egotism and luxuries of some authors. The

objective of the research we present in this article is to provide a set of practical and theoretical indicators to distinguish between publications and approaches that have an impact on the transformation of reality, especially in favor of the most oppressed sectors, and those that do not have an impact on their real improvement.

Social Impact on Society, Especially on the Most Oppressed Groups

Critical pedagogy has a very clear aim: to transform the reality of education and society with an emphasis in overcoming the inequalities of the oppressed (Freire, 2018). The works of all authors mentioned in the first section of this paper have had a relevant social impact in relation to this aim, have transformed schools, educational and cultural projects and have contributed to transforming sciences and societies. There is evidence published in the most relevant scientific journals and in the voices of millions of citizens of the most deprived areas of all parts of the world. Most of those citizens overcame their own inequalities and then, instead of being integrated in the unjust luxury life of the unequal society, they became leaders of their societies' transformations, we have many examples from Rosa Parks, a Highlander participant, to Ana Lebron, a Verneda participant. These social impacts have been and will be the heart of critical pedagogy, its most profound creation of meaning.

Critical pedagogy is not only changing education and societies, it is also making decisive contributions to the change of science and its relations with citizens. The very notion of social impact is an increasing demand of citizens, especially the most oppressed ones, that has been promoted and supported by critical pedagogy. While oppressed citizens are living in poverty and unemployment or working very hard many hours a day, scientists and intellectuals are living with the resources created by the former. Citizens claim for the social impact of those scientists and intellectuals, they increasingly ask them for evidence of the transformations of the realities generated by their publications.

Critical pedagogy has also made key contributions to the elaboration of the notion of co-creation that is now incorporated in leading international scientific programs of research (European Commission, 2018; Gómez et al., 2019). One current requirement of an increasing number of research programs

is to create the scientific knowledge in egalitarian dialogue among authors and citizens (European Commission, 2018). This is already very well known in the poor areas in which critical pedagogists are having everyday egalitarian dialogues with their inhabitants. There are excellent professors like Carme García not only doing this but bringing excellent scientists of other disciplines there to have every day those dialogues with poor people, for instance some of the scientists that made the discovery of Atapuerca (Salvadó et al., 2021).

The success and the social prestige by this critical pedagogy have led to the achievement of other objectives very different and sometimes opposite to the aforementioned aim. In the last decades, there has been a use of the label of critical pedagogy without any social impact for oppressed people, but for the increasing of the economic retributions and fans of the authors using this label. This kind of “critical pedagogy” has a negative impact on the oppressed sectors and also on critical pedagogy (Puigvert Mallart et al., 2021). Of course, many of the followers of this “critical pedagogy” are not aware of those negative consequences and one of the objectives of this article is to open the possibility of all people about the different options and to choose freely if they want to develop critical pedagogy for the liberation of the oppressed or just for obtaining positions, remunerations and fans.

Professor Luis Huerta Charles, from the New Mexico State University, was incredibly clear and sincere making the following question to Professor Henry Giroux in one interview published in YouTube:

one big question in terms of the critical pedagogy field has been for example after almost four decades that we have been talking about critical pedagogy, why do you think we haven't reached a broad impact in universities, in normal schools in Latin American countries, or in educational policies? What has happened that has stopped us to move forward with the critical pedagogy?

Giroux is surprised by this question and asks Huerta: “Are you asking me why we have a broad impact or do not have a broad impact?”

Huerta answers clearly: “We don't have”.

Then, this is the answer of Giroux:

Well, I'm not so sure of that. I think that what we have is the rise of authoritarian governments all over the world that are doing everything they can to suppress critical pedagogy, critical thinking, critical race theory, you name it. This is really, even the attack in the United States, or the attacks in Brazil that are going on against Paulo Freire. That doesn't suggest that critical pedagogy is losing, that suggests that it's dangerous, and I think that's a very different issue. And I think critical pedagogy from its earlier inceptions when it emerged in full force in the 1960s and the 1970s has now reached a huge expanse of people throughout the world. And I'll tell you something else, I also think that as neoliberalism has failed in its promises to educate people, provide social mobility and all that sort of thing, educational systems have failed.

Giroux does not answer clarifying the evidence of the impact of critical pedagogy in universities, schools and educational policies; he recognizes that it has not had impact, situates the attacks of neoliberalism as the cause and says that neoliberalism has also failed in its promises to education. The revision of the literature makes it very clear that Luis Huertas is right, that in the last forty years there is a "critical pedagogy" that has not achieved any impact. But that is true in one kind of critical pedagogy, whereas the critical pedagogy that has its roots in Sappho, Freire, Highlander and Vineda is just the opposite, it has been, has and will have an increasing social impact, especially in the most oppressed people (Aubert et al., 2016; Flecha & Soler, 2013). Today, only in Latin American countries, there are almost 9.000 schools being transformed with the dialogic orientation. The aim of critical pedagogy is not to reach more followers of the authors, but to transform education and society.

The attacks to critical pedagogy cannot be an excuse for not having social impact. In fact, critical pedagogists like Freire or Flecha have been persecuted by dictatorships and their contributions have generated at the same time relevant social impacts. Despite the current attacks to Paulo Freire in Brazil, there are many scholars, educators and citizens in Brazil achieving relevant social impacts with the implementation of Freire's contributions. Critical pedagogy has not been created and developed for having social impact only in the non-capitalist societies, but precisely it has been created for liberating

the oppressed working under capitalists' societies and even under dictatorships.

Equality of Results without Segregating the Oppressed: Literacy, Sentiments, Anti-sexism, Anti-racism

The improvements of the social impact of Freire in the education of many countries are evident. There are some who say that Paulo was not worried about the improvement of the measurable educational results of the population; that is not true, he himself measured the number of people (300) he achieved to make literate in Recife in a very short time. He was also motivated by the improvement of the educational results of the oppressed people with the programs he oriented in different countries. All critical pedagogy authors are very motivated to combat and overcome the segregation of the results that are obtained by the privileged sectors and the oppressed sectors. Not only are they worried, but they evaluate their own actions according to whether they really contribute to that overcoming or not. Only in the “critical pedagogy” can we find authors criticizing the efforts to obtain these measurable educational results of the oppressed while they worry a lot about their success in their own careers and the educational results of their own children.

The authors of critical pedagogy work for the literacy of the whole population, prioritizing the most oppressed ones. They do not think that the others have red blood and their own children have blue blood, they do not criticize the aspiration of the oppressed for their own children to have the same results as the ones of those authors, this is a requirement of the equality they fight for. In fact, they do not struggle for equal opportunities, they struggle for equality of results. Indeed, they are obtaining this equality of results in an increasing number of schools of oppressed people in diverse countries. Authors of “critical pedagogy” do not overcome inequalities of the oppressed and they do not care about that, they cannot be found working regularly in the poorest areas, but being in the most luxurious hotels of the cities.

One excuse given by the segregationist authors is that if we care about the literacy of oppressed people in languages, mathematics, history and so on, we are subordinating the emotional development, the sentiments and the values.

They say that if those oppressed children become successful students in universities they will be individualistic, egotist, caring only about their own success and not about the inequalities of other oppressed people. This excuse has roots in the very egotism of the authors saying that, while any scientific evidence demonstrates the contrary. Many of the leaders of the social transformations in favor of oppressed people are the ones that overcame their poor origins thanks to authors caring about their success. The schools really transformed by the contributions of critical pedagogy authors are the best roots of which arise many of the best friendships and social transformers.

Some segregationist authors oppose caring about improvements of the results of literacy of oppressed people to caring about the development of non-racist and non-sexist values. Listening to them and reading them, it seems as if the oppressed children become good in language or mathematics, they will be sexist and racist, it seems like the unique possibility to be non-sexist and non-racist is to fail in mathematics and language. Of course, they establish this incompatibility only for oppressed children, not for their own children. The scientific evidence demonstrates just the opposite, it demonstrates what critical pedagogy authors have always said (Gómez et al., 2019).

The schools, educational or social projects really transformed thanks to the contributions of critical pedagogy authors give clear steps in the overcoming of inequalities of measurable results and, at the same time, they make many more steps than any other school or project towards being always active against any sexism or racism. Francisco Ferrer y Guardia, Paulo Freire, Rocío García-Carrión and so on have never made or supported any sexist or racist action, any gender violence, any isolating gender violence. Instead, an increasing number of actions, policies and legislations against sexism and racism are the result of the theoretical and practical contributions of critical pedagogy authors. Instead of that, we find actions of gender violence or isolating gender violence among “critical pedagogy” authors, sometimes in exchange of economical retributions and honors (Puigvert Mallart et al., 2021).

Critical Pedagogy Theory versus the Althusserian and Market Styles

The main authors of critical pedagogy have very rigorous, diverse and

profound theoretical bases and contributions. Freire, with his theory of dialogic action, advanced several years to the dialogic turn of social sciences and of all sciences; Habermas published his theory of communicative action thirteen years later. One of the main characteristics of the Ferrer y Guardia Modern Schools was the scientific thinking against all kinds of superstitions, including the religious and the laic superstitions, the superstitions of the right and of the left. Some people that have not profoundly read his theoretical contributions oppose Freire to science, presenting him just as one leftist ideologist. Instead, he wrote clearly that “I am absolutely certain that the educator must submit to the scientific rigor” (Flecha, 1989, p. 109). He also said that his reflection could be attacked both by right reactionaries and by left reactionaries (Freire, 1997, p. 34).

Like Freire and Ferrer y Guardia, the transformation of Schools as Learning Communities has roots in the most outstanding scientific and theoretical contributions of all disciplines including, among others, pedagogy, neuroscience, feminism, masculinities, sociology, anti-racism, psychology, linguistics, philosophy, biology. Not only university professors, also educators, family members and citizens read directly and debate the most important books of the main authors of all those disciplines (Roca-Campos et al., 2021). What they say, write and implement comes from their direct reading and dialogue of those books. They say, write and implement neuroscientific discoveries after reading and debating the books of the main author of neuroscience, Ramon y Cajal, and the main current book of this discipline: *The Principles of Neural Science* (Kandel, 1981). They talk and write about the works by Jane Adams, Lev Vygotsky or Michel Foucault by what they have directly read from their main books.

Those rigorous theoretical bases allow critical pedagogy authors to make theoretical contributions with a real effect in the transformation of education, sciences and societies. Citizens, including the most oppressed ones, know and feel enthusiastic about those contributions and the incredible consequences they have for them (Gómez et al., 2019). In the egalitarian dialogues between authors and other citizens, intellectuals do not try to impress citizens and organizations with the objective of increasing the invitations for lectures, the buying of their books. On the contrary, they are consequent with their obligation to bring to those egalitarian dialogues the main scientific and

theoretical contributions of all authors of the world in a way that citizens could clearly understand them and discriminate what is in favor of them and what is against them. This is one of the reasons why their contributions increase the reputation of critical pedagogy among leading scientists of the different disciplines.

It is the opposite of the situation of the “critical pedagogy” that does not create a real transformation of education, that does not contribute to overcoming the inequalities of the oppressed people and has not at all rigorous theoretical basis. It follows both the Althusserian style and the market style. As can be seen in the books of their most renowned authors of this “critical pedagogy”, they had Althusser and his followers as a key reference. They presented him as a theoretical and a reference against capitalism. Althusser wrote the book “To read the capital”, without having read himself “The Capital”, he was the kind of intellectual that talks and writes about authors and books they have never read directly. He killed his wife and many “critical intellectuals” of the time excused him. He was not the original creator but the most effective disseminator of the Althusserian style: how to get critical followers, how to get even reputation of being intellectual, without reading the works they talk about and committing gender violence and isolating gender violence. It is not surprising that anti-ethical individuals who publish critical books for having a luxury life instead of improving the lives of the oppressed also make gender violence and isolating gender violence and write about what they have not read. This is one of the reasons why scientists from diverse disciplines do not care about their contributions.

Several authors of the “critical pedagogy” that does not transform reality and have a lot of fans follow the Althusserian style, talking and writing about what they have never read. They combine this habit with the market style. Their followers can always find in any of their books a reference or an author they like obtaining what the authors look for: to sell many books, to be quoted and to be well paid for lectures. Their books are like markets offering consumers diverse products but all of them of very low quality. In any of those books, in any of those markets, one can find references of authors so transformative as Freire with authors who were in favor of the depenalization of pedophilia and rape as Foucault or with Nazi authors as Heidegger. Of course, they have not read directly the main works by Heidegger or Foucault,

even they do not know or they do not want to know that they were in favor of rape or Nazism; they write about them without profoundly reading them. These Althusserian and market styles are useful for their individual objectives but are totally unable to allow any real educational or social transformation, any action in favor of the oppressed people.

Conclusion

There are four clear criteria to distinguish the critical pedagogy that transforms education, sciences and societies and the “critical pedagogy” that generates benefits for a few individuals. The first criterion is the egalitarian dialogue with the oppressed to learn from them as Freire did. The second is the social impact transforming the conditions of life of citizens and mainly of the oppressed citizens. The third one is the existing evidence of the real overcoming of inequalities of the oppressed people and the opening of possibilities for them to become leaders of social transformations, as well as their clear actions in every dominion of their lives of those authors against sexism and racism. The fourth one is the theoretical and scientific rigor of their contributions.

References

- Aubert, A., Villarejo, B., Cabré, J., & Santos, T. (2016). La Verneda- Sant Martí Adult School: A Reference for Neighborhood Popular Education. *Teachers College Records, 118*(4), 1–32.
<http://www.tcrecord.org/library/abstract.asp?contentid=19362>
- Apple, M. W., & Beane, J. A. (1999). *Democratic schools*. Open University Press.
- European Commission. (2018, August 17). *A new horizon for Europe: impact assessment of the 9th EU framework programme for research and innovation*. Publications Office of the European Union.
<https://op.europa.eu/en/publication-detail/-/publication/00d78651-a037-11e8-99ee-01aa75ed71a1/language-en/format-PDF/source-77975709>

- Flecha, R. (1989). Conversant amb Paulo Freire. *Temps d'Educació*, 1, 105-9. <https://raco.cat/index.php/TempsEducacio/article/view/139168>
- Flecha, R., & Soler, M. (2013). Turning difficulties into possibilities: engaging Roma families and students in school through dialogic learning. *Cambridge Journal of Education*, 43(4), 451–465. <https://doi.org/10.1080/0305764X.2013.819068>
- Freire, P. (1989). La práctica educativa. *Temps d'Educació*, 1, 91-100. <https://raco.cat/index.php/TempsEducacio/article/view/139166>
- Freire, P. (1997). *A la sombra de este árbol*. El Roure.
- Freire, P. (2018). *Pedagogy of the oppressed* (50th-anniversary ed.). Bloomsbury Academic.
- Gómez, A., Padrós, M., Ríos, O., Mara, L.C., & Pukepue, T. (2019). Reaching Social Impact Through Communicative Methodology. Researching With Rather Than on Vulnerable Populations: The Roma Case. *Frontiers in Education*, 4, 1–8. <https://doi.org/10.3389/feduc.2019.00009>
- Horton, M., & Freire, P. (1990). *We make the road by walking* (J. Gaventa & J. Peters, Eds.). Temple University Press.
- Kandel, (1981). *Principles of Neural Science*. Elsevier Science & Technology.
- Puigvert Mallart, L., Kim, K. H., Khalfaoui, A., Rios Gonzalez, O., Rodrigues de Mello, R., Joanpere, M., & Flecha, R. (2021). Breaking the silence within critical pedagogy. *Multidisciplinary Journal of Educational Research*. <http://doi.org/10.17583/remie.2021.8748>
- Roca-Campos, E., Renta-Davids, A. I., Marhuenda-Fluixá, F., & Flecha, R. (2021). Educational impact evaluation of professional development of in-service teachers: The case of the dialogic Pedagogical Gatherings at Valencia “on giants’ Shoulders”. *Sustainability*, 13(8), 4275. <http://doi.org/10.3390/su13084275>
- Sánchez-Aroca, M. (1999). Voices inside schools - La Verneda-Sant Martí: A school where people dare to dream. *Harvard Educational Review*, 69(3), 320–336. <http://doi.org/10.17763/haer.69.3.gx588q10614q3831>
- Salvadó, Z., Garcia-Yeste, C., Gairal-Casado, R., & Novo, M. (2021). Scientific workshop program to improve science identity, science

capital and educational aspirations of children at risk of social exclusion. *Children and Youth Services Review*, 106189.

<http://doi.org/10.1016/j.chilyouth.2021.106189>

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