

Michel Foucault's Theory and its Educational Implication for Science Learning in the Nepalese Context

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Abstract

This paper focuses on the concept of discourse, power, reflective practice and construction of knowledge and its importance for non-positivist research in the postcolonial era to empower learners. At the same time, different concepts of discourse, power, reflective practice and construction of knowledge are used to recognize their choice clearly. This paper, therefore, aims to clarify the conceptual basis of working with discourses, power, reflective practices and knowledge construction based on the philosophical roots of social theory in the research in the present context of science teaching. Foucault theory can be applied to develop the capacity to critique their traditional materialistic reality learning approaches and empower science students to learn science through discourse, seminar, fieldwork and project work to retain the potential for reflectivity and critical argument; and reconfiguration being contextual of Nepalese scenario.

Keywords: discourse, critical theory, educational implication, philosophical roots, social theory

Introduction

Born Paul-Michel Foucault in Poitiers, France, on October 15, 1926. Michel Foucault, the French Postmodernist philosopher and educationist, was highly influential in shaping the understandings of power practised in society, disbelieving the materialistic reality (Bazzul & Carter, 2017). His critical study influence is seen in various social institutions, including medicine, education, and psychiatry and his work on the history of sexuality (Deacon, 2006). He was influenced by Friedrich Nietzsche, Immanuel Kant and Georges Dumézil. According to Deacon (2006), Foucault's detailed studies about madness, punishment, sexuality, and the human sciences and

their impact on society. He provided educational theories based on concepts like "discipline, problematization, analytical techniques and arguments about the intimate embrace of knowledge and power, and ways in which ethically human beings related subjects to themselves and others" (Deacon, 2006, p. 177).

The key idea of the archaeological method is that rules beyond grammar and logic (govern systems of thought and knowledge). The point of a genealogical analysis is to show that a given system of thought was the result of contingent (dependent) turns of history, not the outcome of rationally inevitable trends. Moreover, Deacon (2006) added that "disciplines are techniques for assuring the ordering of human groups to exercise power at the lowest cost and maximum efficiency and effectiveness to increase obedience"(p. 177).

Michel Foucault's concepts of discourse, power, reflective practices and construction of knowledge based on the social theory and overall educational implications of Foucault's arguments are found in contrast to those practised by other Social theorists. Foucault's theory contributed to emancipating and empowering socially and culturally deprived people's voices through critically arguing (Mashoko, 2022). In learning science, students need to be critical and empower the voices of marginalized and Dalit students in classroom discourse to support them in learning essential science courses (Freire, 2000). However, classroom discourse is not found in science learning in the context of Nepal. So this theory could be applicable in the Nepali education system to uplift their voices, so it is discussed in detail under the following heading. This paper aims to discuss mainly discourse, power, reflective practices, and construction of knowledge by Michel Foucault and the overall educational implication of this theory for science learning in the present context of Nepal.

Method

This paper is a theoretical article based on the literature review. The paper has consulted fifteen research articles and books relating to the field of Foucault's theory and its implication practice. This paper used data from secondary sources. Mainly data were taken from books, internet surfing, journal articles, and thesis and reports related to the topic using library methods visiting the library and different websites. Meta-analysis was

applied to select the appropriate web materials related to Foucault's theory and its implication for learning.

Discussion

Discourse

The concept of discourse is a multidimensional, broadly perceived word. Discourse mainly depends upon the language used. In the Nepalese classroom context, English or Nepali language hegemony was seen as highly influential in the diverse socio-cultural classroom. So, culturally diverse students present in the class are seen as silent in the interaction and knowledge-generation process. Teachers are mainly influenced by the ready-made western knowledge system and deliver the curricular content matter without considering the students' socio-cultural context in the classroom discourse. The literature notes that in the study of language, discourse often refers to the speech patterns and usage of language, dialects, and acceptable statements within a community (Pitsoe & Letseka, 2013). It is a subject of study about people living in fixed areas and sharing similar speech conventions. Sociologists, anthropologists and philosophers use the term "discourse" to describe the conversations and the meaning behind that made by them by a group of people with specific ideas in common. The concept of "discourse" originated from the Latin word "dis-cursus", and its meaning is "running to and from", and it refers to "written or spoken communication practice in the society". In general, discourse is a conversation between people, exchanging ideas and informing the knowledge from one person to another. But in the classroom discourse, it is two-way communication between the teachers and students in any subject matter. But for Foucault (1977), it is through discourse (through knowledge) that we are created; and that discourse joins power and knowledge, and its power follows from our casual acceptance of the "reality with which we are presented" (P. 24).

The discourse in society could be motivated towards the appreciation of reflexivity and reconfiguration of cultural people (Bazzul & Carter, 2017). However, it is perpetuated by those who have the power and means of communication in society (Foucault, 1977). For example, the mother tongue having Nepalese students could not apply their language in the school classroom discourse due to the either English or Nepali language control in

the classroom discussion as the name of national and international language. In each question answer and interaction practice, they felt inferior and could not express their knowledge properly in other languages. Foucault felt that classroom discourse in mother term they felt that truth, morality, and real meaning are created in the classroom discourse. In every society, the production of discourse is controlled according to a certain number of procedures, whose role is to avert its powers and dangers, cope with chance events, and evade its ponderous, awesome materiality (Powers, n. d). So, our classroom interaction was not being discursive as it should be.

Power

Power is a concept that has been at the heart of many academic and public debates both in the modern and cultural worlds. Foucault said that those who have knowledge in society use the power for the role whole over the community (Bazzul & Carter, 2017). Knowledge-holder people focus their attention power attraction on the social world (Purdy, 2015). Michel Foucault writes that there can be no possible exercise of power without a certain economy of discourses of truth which operates through and based on this association (Foucault, 1977. Bazzul and Carter (2017) further argue that the person who can establish the truth has done the power exercise. Foucault stated in his book discipline and punishment that the control of surveillance mechanisms in social systems is also a major source of productive power in the modern-day, not just in the realm of discipline and behaviour modification (Purdy, 2015).

Power is exercised concretely and in detail, visible in the working society. It is omnipresent either in the society or a nation. So, it comes from everywhere. It flows through relationships and discourse in every sector. But there is no discourse on how to make it acceptable for all to produce goods, bring pleasure, form knowledge, and produce new knowledge (Foucault, 1977). Stalh (2014) added power also has to do with madness and wisdom. Power produces and defines knowledge. Power and knowledge imply one another. Power should be viewed as a productive network versus a negative instance which represses" (p.4330).

Foucault criticism of two concepts that make a clear understanding of power (Weedon, 1997) .He further added the Marxist concept of "ideology"

and the Freudian concept of "repression." But, he opposed their ideology because his concept was always standing against something that is supposed to count as hegemonic count as truth. Ideology, he always refers to a subjective power of the culture. Marx and Marxist thought seek to unravel that ideological stratum to get down to the conflictual truth. According to him, those who are capable of knowing the truth are the working class in themselves. Foucault opposes the concept of "repression" because this concept is only about the effect of power as repression, and it does not support the empowerment of diverse people and society (Hutcheon, 1991).

According to Foucault, Europe's "productivity of power" increased after the 18th century worldwide as a form of intellectual and economic support. A new "economy of power" emerged that allowed the effects of power to circulate continuously, uninterruptedly. Poststructuralists to see the eye view of power as a form of hegemony (Foucault, 1977). In hegemony, the oppressed class people give the oppressors permission to more oppress for them in the form of better education, infrastructure development and education reform for quality education. Also, hegemony occurs through social practices and beliefs that neither the oppressors nor the oppressed are aware of. Thus, cultural people being a necessity for raising people's consciousness as a prerequisite for true freedom (Pitsoe & Letseka, 2013). In the school science teaching discourse also, teachers are teaching in diversified classes showing their pre-mind set knowledge of what they learned previously or prescribed in the curriculum as a formal education without considering students' needs and interests for developing critiquing power on students on their teaching. It indicates that our classroom teaching is not beyond the power hegemony. As Bazzul and Carter (2017) stated, students are losing criticality and social action in science learning, obeying the school rules and regulations. Both teachers and students are being deterministic in generating new ideas by challenging the hegemonic education system. Teachers are working in network form (Matthewman, 2013) with a central system of education. Science students should have developed the capacity to question the present practice of science learning in the classroom being critical.

Reflective Practice

Reflective practice plays a critical role in critiquing the present hegemonic phenomenon by arguing socio-culturally valuable knowledge. The school of thought developed by Foucault was based on society with his personal reflection on societal health. He valued reflection to consider how to go beyond the boundary of our existing knowledge sources to develop intellectual growth and freedom for the learners. He defined critical self-reflection as critiquing the formal education system by thinking differently rather than validating the previous knowledge system (Foucault, 1977).

According to Foucault, reflective ideas support society and social civilization through self-improvement and professional development. Reflective practice helps increase participation in the democratic process, community engagement (Freire, 2000), lifestyle improvement, etc, which helps emancipate socially deprived people (Bazzul & Carter, 2017). Thus, Reflective Practice is potentially a highly complementary concept in critical discourse (Woermann, 2012). The teacher should be reflective on what he practised before and what could change through science teaching, actively engaging students in classroom discourse.

Construction of Knowledge

According to Foucault, discourse constructs knowledge through use of language and their practices. The language support for description of the truth being reflective. However, the hegemonic language practice of Nepal deprived the culturally marginalized students of learning science in their own language. As Foucault (1977) said power produces knowledge implicated in what is considered true or false. According to him, power is embedded within knowledge and vice versa. Foucault talks about awareness of the "hidden curriculum". He insists on intercultural understanding and multilingualism in the process of knowledge construction. "Learning to learn" involves critical thinking, reasoning, and reflection (Foucault, 1977). For this, he points to reflective teaching. Finally, he argues that portfolio-based assessments, which will affect the school education system, including science education, are implemented now in the school education system.

Education Implication in the Science classroom

Foucault focused on pedagogical power relationships by contrasting the two most important forms of instruction, the lecture and the seminar

(Foucault, 1977). He argues that the lecture, is the traditional approach of teaching that focuses on non-reciprocal and unequal power relationships. It is more honest and less devious than the seminar about the relationships of power which inevitably invest each of them (Powers, n. d). It is tentative about its truth claims, which exposes itself to criticism and might neutralize power relations by rendering them more visible (Bazzul & Carter, 2017).

On this basis, Foucault felt that seminars, whilst necessary, might be better suited for training in methods than for developing free and critical thinking about scientific phenomena for science students. In the context of the Nepalese Institution, functionalist learning theory has the dominant power by using science teachers' lecture methods in the science classroom. Foucault's theory may be helpful in distributing the power towards the science learners through actively participating in seminars, workshops, fieldwork and conferences, which breaks the autocratic power and distributes the equal power of each participant to learn science inside and outside the classroom. Moreover, it provides learning, as well as critical reflectivity for transformative learning, being self-reflective (Paul, 2014). It develops the critique capacity of positivist science learning culture and enhances the science students to learn what they are expected to consider critical socio-cultural issues (Mashoko, 2022). So, Michel Foucault's discourse, power, reflective practice and construction of knowledge help construct new knowledge by applying social justice-based pedagogy (Morales-Doyle, 2017) in the postmodern era.

Conclusions

Michel Foucault's discourse, power, reflective practice and construction of knowledge, an interrelated social construct, can serve as analytical tools to better understand instructional classroom management. In our present context, instructional classroom management practices constitute a kind of order practice in which bureaucratic domination can be seen. These practices are undergirded by particular hegemonic theories and particular conceptions of humankind as a form of objectivity. Within our instructional classroom setting, the teacher's power as a tool of social reproduction shapes students to be able to play a part in power operations. They are motivated to get good marks in the school education system through social truth/belief, showing that they are good knowledge holders, which supports increasing their power. It means education is taken as the means of power

and prestige development in society. Hence, teachers can be regarded as agents of bureaucratic hegemony, for good or for ill, in any society. So Foucault's focus on the equal distribution of power in society and learning institutions.

In the present Nepalese context of educational institutions, Foucault's theory of Postmodernist is important as compared to modernism for challenging disciplinary learning (Bazzul & Carter, 2017). According to Powers (n. d), modernism is mainly dominated by functionalist theory and students are dominated by the teachers and rules and regulations of institutions. In this type of institution, students do not have got the chance to empower themselves, but in accordance to Foucault's, students have the chance to get the opportunity to engage in the teaching-learning process, which is possible in a postmodernist learning culture. This theory focuses on the emancipatory methodology and democratic practice of institutions which enhance the learning culture of our science students, so Foucault's theory is appropriate for teaching science in our teaching institutions. It emphasizes the free power practice and resistance in the institutions and teachers which provide progressive, practical and live-situated learning environments.

This theory opposes traditional lecturing in teaching-learning activities and emphasizes the seminar, project work, conference, fieldwork and dialogue through which it empowers science students to generate new scientific knowledge about socially, ecologically just and sustainable futures through involvement in discourse activities (Bazzul & Carter, 2017). Foucault's theory opposes the racism, caste, gender and class violence and insists intercultural understanding and multilingualism in the knowledge construction process. It is applicable in the present learning institutions to empower and equally exercise power. So, Foucault's theory of power is helpful to be critique and reflect to generate new knowledge and emancipation of science learners in educational institutions in the Nepalese context.

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