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 information systems. At the same time, there are different concepts of Discourse, Power, Reflective Practice and Construction of Knowledge that are used simultaneously and often without clear recognition what their choice entails. This paper, therefore, aims to clarify the conceptual basis of working with Discourses, Power, Reflective Practices and Knowledge Construction based on philosophical roots of social theory in the research in the present context of science teaching. To do this, it describes and compares the notions of discourse as we find them in the most influential discourse theory, namely that by Michel Foucault. Foucault theory can be applied to develop the capacity to critique their traditional material reality learning approaches and to empower science students for learning science through discourse, seminar, fieldwork and project work in order to retain the potential for reflectivity and reconfiguration being contextual of Nepalese scenario.

Introduction

Michel Foucault, the French postmodernist, has been hugely influential in shaping understandings of power. He was born in Poitiers, France on October 15, 1926. Known for his critical studies of various social institutions, including medicine, education, 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, Foucault's detailed studies of madness, punishment, sexuality, and the human sciences have provided educational theorists with a whole new array of concepts like discipline, and problematization, analytical techniques)such as archaeology, and genealogy(and arguments as about the intimate embrace of knowledge and power, and ways in which human subjects relate ethically to themselves and others)Deacon, 2006(.

The key idea of the archaeological method is that systems of thought and knowledge are governed by rules, beyond those of grammar and logic. 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. Sexuality becomes an essential construct in determining not only moral worth, but also health, desire, and identity. 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 philosophical root)s(vis-a-vis the research components of the social theory and overall educational implications of Foucault assertions in contrast to those of the other Social theorists and contextualize the discourse to the Nepalese scenario is discussed on the following heading in detail. This paper discusses mainly Discourse, Power, Reflective practices, and Construction of Knowledge by Michel Foucault and overall educational implication of this theory for science in the present context of Nepal.

Methodology

This paper is a theoretical article based on the literature review. The paper has consulted eleven research article papers in the field of Foucault's theory. This paper uses data from secondary sources. Mainly data are taken from books, internet surfing, journals articles, 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 discourse is multidimensional, broadly perceived and has several definitions. A plethora of 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 who live in secluded areas and share similar speech conventions. Sociologists and philosophers tend to use the term discourse to describe the conversations and the meaning behind them by a group of people who hold certain ideas in common. The concept discourse originates from Latin dis-cursus, meaning running to and from, and generally refers to written or spoken communication. In the simplest sense, discourse is conversation or information. 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(.

Discourse, as a social construct, is created and perpetuated by those who have the power and means of communication. For example, those who are in control decide who we are by deciding what we discuss. Foucault holds that truth, morality, and meaning are created through discourse. In every society, the production of discourse is at once controlled, selected, organized and redistributed according to a certain number of procedures, whose role is to avert its powers and its dangers, to cope with chance events, to evade its ponderous, awesome materiality (Powers, n.d(.

Power

Power is a concept that has been at the heart of many academic and public debates for as long as observers have been focusing their attention on the social world)Purdy, 2015(. In his examination and definition of power, 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(. Foucault stated in his book discipline and punish that the control of surveillance mechanisms in social systems is also a major source of productive power in the modern-day, and not just in the realm of discipline and behaviour modification)Purdy, 2015(.

Power is exercised concretely and in detail)in regards to specificity, techniques and tactics(. Power is visible. It is omnipresent. So, comes from everywhere. Flows through relationships and discourse. Is power simply a means of repression)domination(? According to Foucault, the answer is no. What makes power acceptable is that produces goods, induces)brings(pleasure, forms knowledge, produces discourse)Foucault, 1977(. According to Stalh)2014(, "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's criticism of two concepts makes clear his understanding of power)Weedon, 1997(. He further added that Marxist concept of "ideology" and the Freudian concept of repression. He opposes ideology because this concept always stands against something that is supposed to count as truth. Ideology always refers to a subject. It is always secondary to an infrastructure; a material, economic determinant. In Marxism, base determines superstructure means the relations of production determine the ideas. As Marx said, In every epoch, the ideas are the ideas of the ruling class (ibid). Marx and Marxist thought seek to unravel that ideological stratum to get down to truth which is the conflictual relationship between the proletariat and the bourgeoisie. The Subject who is capable of knowing this truth is the working-class-in-itself.

Foucault opposes the concept of repression because this concept is only about the effect of power as repression, i.e., power that says no and prohibits)Hutcheon, 1991(. It is a juridical conception of power. For him, repression is a negative conception of power. And as such, it is incomplete. What makes power hold good, what makes people accept it, is that it produces things, it induces pleasure, forms knowledge produces discourse)Hutcheon, 1991(.

According to Foucault, the productivity of power increased after the 18th century in Europe. A new economy of power emerged that allowed effects of power to circulate in a continuous, uninterrupted manner. Poststructuralists see power as a form of hegemony (Foucault, 1977). In hegemony, the oppressed class literally gives the oppressors the permission to oppress them. Much of the hegemony occurs through social practices and beliefs which neither the oppressors nor the oppressed are aware of, thus the necessity for raising the consciousness of people as a prerequisite for true freedom)Pitsoe & Letseka, 2013(. Foucault)1977(says, power is coextensive with resistance; productive, producing positive effects; ubiquitous, being found in every kind of relationship, as a condition of the possibility of any kind of relationship.

Power and surveillance

As we have seen thus far, surveillance practices and arrangements can constitute both repressive)power over(and productive)power to(forms of power, in both structural bases and through individual human agency (Deacon, 2006). However, like many concepts which are the focus of sociological inquiry, power is subject to change over time and in conjunction with other social changes. In Discipline and Punish, Foucault details the change from older repressive practices, with graphic descriptions of torture, hangings and other public displays of punishment)Foucault, 1977(.

While the surveillance was in play with these forms and exhibitions of repressive power, it was very much dependent upon the ability of those in positions of power to directly observe, or have observed for them, the behaviours of people)Foucault, 1977(. This obviously has its limits, in that to hide one's behaviours from this gaze would seem to be rather easy. As such, Foucault holds that the public spectacle of punishment, torture, etc. was necessary to get the point across to a population, and thus influence/prevent future sanctioned behaviours)ibid(. Over time, Foucault shows that surveillance became more refined, with things like the census of populations, and citizen registrations, allowing for more effective forms of surveillance and governing practices, which he demonstrates with a discussion of citizen surveillance and control during plague outbreaks)ibid(. Through these changes in surveillance, we can also see a change in the forms of power which are practiced. The examination of the prison, and the panopticon, in particular, suggests that power shifted away from repression and towards productive ends, with the emphasis on discipline and influencing people to modify their own behaviour)Foucault, 1977(.

However, Foucault's examination of the panopticon does, in the modern-day, appear to be a bit dated, perhaps due to the fact that it was written in the 1970s, and examined practices which took place many years before that)Matthewman, 2013(. And so we must ask ourselves how the balance between repressive and productive power has been affected by the huge growth and intensification of surveillance in recent history (ibid).

Modern society is characterized by the collection of information from nearly every aspect of life, and the use of this information to some end. For instance, every time you swipe your credit card)or punch in the numbers online(to make a purchase, information is logged regarding the amount and type of transaction which is made (Purdy, 2015(. Likewise, our interactions in the digital world, the searches that we carry out on Google, the pictures that we post, the comments that we leave, and most everything else, is logged by those who host the services

Reflective Practice

The school of thought by Foucault was mainly of society with his personal reflection for societal health. He valued reflection to consider how to go beyond the limits of our existing knowledge to work towards intellectual growth and freedom. He defined critical self-reflection as being. To know-how and to what extent it might be possible to think differently, rather than legitimating what is already known ... a test of the limits that we may go beyond (Foucault, 1977).

Foucault's perspective is an example of the evolution of Reflective Practice in terms of its potential reach and outcomes, i.e. at a societal level, way beyond the earliest notions of reflection as simple aimless contemplation. His ideas prompt us to see very easily that Reflective Practice is ultimately a tool by which society and civilization can improve, far beyond notions of individual self-improvement and professional development. We could imagine that Reflective Practice helps to increase participation in the democratic process, community engagement, lifestyle improvement, etc. Thus, Reflective Practice is potentially a highly complementary concept. Teachers who are unreflective about their teaching tend to accept the status quo in their schools and simply concentrate on finding the available means to address everyday issues that have largely been defined beforehand by others.

Construction of knowledge

According to Foucault, discourse constructs knowledge through language and practices. The language in which we describe facts interferes in the process of describing what is true or false. Power produces knowledge ➔ Power is implicated in what is considered to be true or false ➔ Power and knowledge imply one another)Foucault, 1977(. Foucault talks about awareness on hidden curriculum. He insists on intercultural understanding and multilingualism in the process of knowledge construction. Learning to learn for him is critical thinking, critical reasoning, and critical reflection)Foucault, 1977(. For this, he points at reflective teaching. Finally, he argues for portfolio-based assessments.

Philosophical Roots of Foucault's Theory

In the late twenties century, the traditional relationship of pedagogy and philosophy changed under the influence of globalization and internationalization of education. Based on the determinant analysis, it has been found that postmodernism)Foucault, 1977(and post-non-classical science serve philosophical grounds for transnational higher education formation. Like that, a critical social theory describes how groups of people exist concerning the historically based dominant ideologies that structure their experience)Woermann, 2012(. The specific process advocated by critical theory is the bringing about of self-liberating practices among groups of people using awareness of oppressive conditions. It is not clear exactly how these self-liberating practices are to be brought about, but it is clear that the practices must not be forced upon people by researchers or anyone else (ibid). As an example, I have discussed the coercive turn in the use by health professions of the term empowerment elsewhere and therefore choose not to use this term to refer to these self- liberating practices. Using the notions of ideology and false consciousness, critical theory seeks to identify ways in which social phenomena might become less oppressive. The ultimate goal of a critical theory is the emancipation of human beings as a consequence of becoming aware of an alternate interpretation, which includes a preferable future)Powers, n. d(. He further critiques of historically based social and political institutions that oppress people, while at the same time having a situated practical intent to decrease such oppression (ibid).

Education Implication in the Science classroom

Foucault sheds more light on pedagogical power relationships by contrasting the two most prominent forms of instruction: the lecture and the seminar)Foucault, 1977(. He argues that the lecture, that apparently non-reciprocal and unequal power relationship, is more honest and less devious than the seminar about the relationships of power which inevitably invest each of them (Powers, n. d(. A lecture which is tentative about its truth-claims and which exposes itself to criticism might neutralize power relations by rendering them more visible; whereas the ostensible freedom and reciprocity of the seminar may disguise power relations to the extent that science students uncritically absorb what is only the informed opinion of the teacher (Bazzul & Carter, 2017).

On this basis, Foucault felt that seminars, whilst necessary, might be better suited for training in methods than for the development of free and critical thinking about scientific phenomena towards science students. In the context of Nepalese Institution, functionalist learning theory has the dominant power by using the lecture methods in the science classroom by science teachers. Foucault's theory may be helpful to distribute the power towards the science learners through actively participating in the seminar, workshop, fieldwork and conference which breaks the autocratic power and distribute the equal power of each participant to learn science inside and outside the classroom. It develops the critique capacity of positivist science learning culture and enhances the science students to learn what they to be expected. So that Michel Foucault's

discourse, power, reflective practice and construction of knowledge is helpful to construct the new scientific knowledge in the postmodern era.

Conclusions

Michel Foucault's Discourse, Power, Reflective Practice and Construction of Knowledge are as a social interrelated constructs, can serve as analytical tools to achieve a greater understanding of instructional classroom management. Instructional classroom management practices constitute a kind of order which perpetuates bureaucratic domination. These practices are undergirded by particular theories and particular conceptions of humankind. Within an instructional classroom setting, the teacher's power as a tool of social reproduction shapes students to be able to play a part in power's operations. 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 institutions students have not 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 post-modernist learning culture. This theory focuses on the emancipatory methodology and democratic practice of institutions which enhance the learning culture of our science students so that Foucault's theory is appropriate teaching science in our teaching institutions. It emphasizes the free power practice and resistance in the institutions and teachers which provide the progressive, practical and live situated learning environments.

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

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