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Global crises, social justice, and the politics of teacher education

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Abstract: Diasporic population constitute an ever-growing proportion of children in the US schools. This is one of the reasons why there is a need to think about education globally. This paper begins with arguing for the need of a broader understanding of the effects and implications of globalization on the contexts and roles of teachers and teacher educators in these changing situations. It then underlines some “first principles” that may guide the understandings and actions of these educators in this context. It concludes by outlining the tasks of the critical scholars and activists that emerge in relation to the restructured role of the educators in the wake of the interfaces between globalization and politics of education.

Keywords: Globalisation, critical teacher education, social justice and education

Introduction

When the United States government released its 2007 census figures in January 2010, it reported that 12% of the US population—over 38 million people—were foreign born. First generation people were now 1 out of every 8 persons in the nation, with 80% coming from Latin America and Asia (US Census Bureau, 2010). This near record transformation, one in which diasporic populations now constitute a large and growing percent of communities throughout the nation and an ever growing proportion of children in our schools, documents one of the most profound reasons that we must think globally about education. This transformation is actually something of which we should be proud. The United States and a number of other nations are engaged in a vast experiment that has rarely been attempted before. Can we build a nation and a culture from resources and people from all over the world? The impacts of these global population flows on education and on teacher education are visible all around us.

No discussion of globalization and its relation to teacher education can be sufficient without an understanding of globalization in general.¹ Because of this, in this article I want to do a number of things. First, I want to argue for a broader understanding of globalization and its effects and point to some implications that this has for teachers and teacher educators as they try to comprehend and act on their changing situations. Second, I shall remind us of some “first principles” that should guide our understanding and actions. Third, I will point to some key works that should be required reading for anyone who wants to take seriously the realities of the effects of globalization on many of the countries and regions from where new populations may come from. In the process, I shall connect what I say in this paper to the set of tasks in which critically democratic educators and researchers need to engage if we are take seriously our

responsibilities in building and defending institutions, practices, and intellectual/political traditions that will enable us understand and act on current realities. My agenda is a large one. Because of this I can only outline a series of steps toward more critical understandings of globalization. But our problems are large as well. Thus, in my notes and references I provide further resources that are critical for going further into the issues I raise.

Understanding Globalization

If one were to name an issue that has come to be found near the top of the list of crucial topics within the critical education literature, it would be *globalization*. It is a word with extraordinary currency. This is the case not only because of trendiness. Exactly the opposite is the case. It has become ever more clear that education cannot be understood without recognizing that nearly all educational policies and practices are strongly influenced by an increasingly integrated international economy that is subject to severe crises, that reforms and crises in one country have significant effects in others, that immigration and population flows from one nation or area to another have tremendous impacts on what counts as official knowledge, what counts as a responsive and effective education, what counts as appropriate teaching, and the list could continue for quite a while (see Dale and Robertson, 2009; Burbules & Torres, 2009; Rhoads & Torres, 2006; Peters, 2005). Indeed, as I show in *Educating the "Right" Way* (Apple, 2006) and *Global Crises, Social Justice, and Education* (Apple, 2010), all of these social and ideological dynamics and many more are now fundamentally restructuring what education does, how it is controlled, and who benefits from it throughout the world.

While localities and national systems affect the processes of globalization differently and provide different contexts for struggles, a homogenization of educational policies and practices, driven by what Santos (2003) calls "monocultural logics," is very clearly evident within and between settings. These logics are very visible in current education policies both inside and outside of teacher education which privilege choice, competition, performance management, individual responsibility, and "risk management," as well as a series of attacks on the cultural gains made by dispossessed groups (Apple, Ball and Gandin, 2010). Neoliberal, neoconservative, and managerial impulses can be found throughout the world, cutting across both geographical boundaries and even economic systems. This points to the important "spatial" aspects of globalization. Policies are "borrowed" and "travel" across borders in such a way that these neoliberal, neoconservative, and managerial impulses are extended throughout the world and alternative or oppositional forms and practices are marginalized or attacked (Gulson & Symes, 2007, p. 9). The fact that the attacks on teacher education institutions that are sponsored by conservative think-tanks in the United States are now surfacing in many other nations documents part of this dynamic. The additional fact that performance pay for teachers is now part of official government policy in China at the same time that it is having major effects in discussions of and policies on teaching in the United States is yet another indication of the ways in which policies concerning teaching and teacher education travel well beyond their original borders.

The insight that stands behind the focus on globalization in general can perhaps best be summarized in the words of a character in a novel about the effects of the British Empire (Rushdie, 1981). If I may be permitted to paraphrase what he says, “The problem with the English is that they don’t understand that their history constantly occurs outside their borders.” We could easily substitute words such as “Americans” and others for “English.”

There is a growing literature on globalization and education. This is undoubtedly important and a significant portion of this literature has provided us with powerful understandings of the realities and histories of empire and postcolonialism(s), the interconnected flows of capital, populations, knowledge, and differential power, and the ways in which thinking about the local requires that we simultaneously think about the global. But as I will argue in the next section of this article, a good deal of it does not go far enough into the realities of the global crises so many people are experiencing or it assumes that the crises and their effects on education are the same throughout the world. Indeed, the concept of globalization itself needs to be historicized and seen as partly hegemonic itself, since at times its use fails to ground itself in “the asymmetries of power between nations and colonial and neo-colonial histories, which see differential national effects of neo-liberal globalization” (Lingard, 2007, p. 239).

This is not only analytically and empirically problematic, but it may also cause us to miss the possible roles that critical teacher education—and critical education and mobilizations around it in general—can play in mediating and challenging the differential benefits that the crises are producing in many different locations. Any discussion of these issues needs to be grounded in the complex realities of various nations and regions and of the realities of the social, cultural, and educational movements and institutions of these nations and regions. Doing less than that means that we all too often simply throw slogans at problems rather than facing the hard realities of what needs to be done—and what is being done now. But slogans about globalization and what is needed to help teacher educators and our current and future teachers understand its nature and effects are certainly not sufficient given current realities.

One of the main problems is that teachers and teacher educators are left with all too general stereotypes about “what diasporic children and their parents are like” and what the conditions are in the places where they may come from. But effective teaching requires that we understand students, their communities, and their histories not only where they live now, but the sum of their experiences before they came to the United States. Superficial knowledge may be not much better than no knowledge at all. It may also paint a picture of parents and youth as passive “victims” of global forces, rather than as people who are active agents continually struggling both in their original nations and regions and here in the United States to build a better life for themselves, their communities, and their children. Thus, teachers and teacher educators need to know much more about the home countries and regions—and about the movements, politics, and *multiple* cultural traditions and conflicts from where diasporic populations come.

Let me give an example. In my own university, the fastest growing minor for students enrolled in our elementary teacher education program is Spanish. This is based on a recognition of the ways in which global flows of people from the South to the North are having profound effects on educational policies and practices and on the resources that current and future teachers require given this. I do not want to speak against this choice of a minor at all. Indeed, I have a good deal of respect for future and current teachers who are willing to engage with diasporic students in “their own language.”

But the final words in the above paragraph speak powerfully to my point about knowing more about the politics and multiple cultural traditions of home countries. Many of the students from, say, Mexico and other Latin American nations speak *indigenous* languages as their first language. Spanish is their second language. In their home countries and regions, there are powerful movements among indigenous groups and their progressive allies to defend these languages and cultures. Not understanding this political history and the cultural traditions and struggles associated with it can lead teachers to assume that students being taught in Spanish who do not do well in spite of this are “less intelligent,” are in need of “special education” and other interventions. Having a much more detailed sense of and sensibility towards the complexities of the regions from which students come and the political and cultural movements and struggles there would be absolutely essential for creating curricular and teaching practices that are culturally relevant (see Ladson-Billings, 1994, Apple & Beane, 2007). But this would also help prevent us from mis-recognizing the actions of parents and communities in the areas in which the schools sit and the areas from where the people originally may have come.

This recognition of agency, of people and movements actively engaged in building a better future both “here and there,” would go a long way in reducing the tendencies among many educators in the United States to assume that they have nothing to learn from the global flows of people who are now transforming our nation and so many others. This is a crucial point. Major transformations in education and social life *are* going on in those nations and regions from where so many people are coming. Those of us in education here have much to learn about how we might transform our own often overly bureaucratic and at times strikingly unequal institutions by looking at other nations’ experiences and seeing people who have come from these nations as *resources*, not only as problems.

Let me give an example here. There are powerful models that specify more critical moments and processes in education from which we could learn, with the work of Luis Armando Gandin and myself on the justly well-known reforms in Porto Alegre, Brazil (see, e.g., Apple, 2013a; Gandin, 2006; Apple, et al., 2003; Apple, Au & Gandin, 2009) and Mario Novelli’s discussion of the ways in which trade union activism led to critical learning and new identities in Columbia (Novelli, 2007) being among the more important. Gandin’s and my analyses of the reforms in Porto Alegre—reforms that are having important influences throughout Latin America—have major implications for teaching and teacher education, since the growth and acceptance of more critically

democratic educational policies and practices there could not have been accomplished without the participation of a core of well-prepared and critically reflexive teachers. We have much to learn from these reforms that link together major critically democratic transformations in both social and educational policy and practice and in the close connections between teacher education and these transformations. The account that Kenneth Zeichner and Lars Dahlström give of the limits and possibilities of more democratic teacher education in parts of Africa also serves as a good example of the kinds of work that needs to be done as well (Zeichner and Dahlström, 1999).

These examples of critical work in nations outside the United States should not make us assume that discussions of globalization are only about “other” countries. Any complete analysis of the United States needs to be situated in the global realities here. This involves a probing investigation of an increasingly diverse society, one where major economic changes and the realities of multiculturalism, “race,” “diaspora,” and immigration play crucial roles, as does the fact that even with the legacy of such policies as No Child Left Behind, there is relatively weak central governmental control over education. Economic transformations, the creation of both paid and casualized and often racialized labour markets that are increasingly internationalized and unequal, demands for new worker identities and skills—and all of this in a time of severe economic crisis—are having profound effects (Apple, 2010). None of this can be understood without also recognizing the ways in which the realities of the United States are influenced and often shaped by our connections with economic, political, and cultural policies, movements, and struggles outside our official borders.

A critical question remains, however. *How* are we to understand these global realities and relations critically? This requires that we also criticize some of the accepted tenets of critical analysis in education itself. In some of the critical literature, there seems to be an unstated assumption that one can comprehend global realities through the use of a single lens—through class politics *or* gender *or* race—or more lamentably, that poststructural analyses are total replacements for structural understandings. Yet no one dynamic and no single theory is sufficient (Apple, 2006; Apple, 2013a; Apple, 2013b). It is the intersection of and sometimes contractions among multiple dynamics and histories—what is called in the literature on critical race theory “intersectionality” (Gillborn, 2008)—where we can find a more adequate sensitivity to the utter complexities surrounding globalization and its effects. When one adds to this a set of compelling understandings of “empire” and colonial and postcolonial realities (Apple, 2010), we get much closer to the complex foundations of the growing transformations of populations in the United States and other nations and the ways in which they understand the world and their place in it (see Gillborn, 2008; Leonardo, 2009; Fraser, 1997; Apple & Buras, 2006; Apple, 2014; Rege, 2003; Stambach, 2000).

These complexities require an analysis of many things that are foundational for a more thorough comprehension of what we face in education and of the causes of these conditions: political economy and the structure of paid and unpaid work both in the United States and in the countries from where diasporic people come; the ways in which

these realities are structured and experienced differently around such markers as class, gender, race, region, and increasingly religion; the identities that people bring with them and the ways in which these identities are transformed in the process of building a life here; and the fact that many people have hybrid identities based on their experiences of constantly crossing geographical borders as they go back and forth between countries, living basically in both (see, e.g., Lee, 2009; Lee, 2005; Sarroub, 2005; Suarez-Orasco, Suarez-Orazco & Todorova, 2008; Velez-Ibanez & Sampaio, 2002).

Because of all this, the situation we face in education also demands a rich mix of theoretical and critical traditions, all of them appropriately political, that deal with both of the sets of dynamics that Nancy Fraser had identified as crucial to the reconstruction of our core institutions: the politics of redistribution and the politics of recognition (Fraser, 1997). The first refers to the ways in which the economy works, how it is controlled, and who benefits from it. The second deals with cultural struggles over identity, the gaining or denial of respect, the basic ways in which people are recognized or mis-recognized as fully human and deserving of rights.

Of course, there are those who would reject this more integrative approach, who believe that there is only one way a critical scholar/activist can be legitimately critical. For them, an approach that seeks to deal respectfully with and learn from critical theories and resources from multiple sources and multiple critical traditions is misguided. For me and many others, however, the key is to heed Fraser's aforementioned absolutely imperative call for a politics of redistribution and a politics of recognition in ways that *do not interrupt* each other (Fraser, 1997). Such an approach, one in which one learns respectfully from each other and respectfully disagrees when necessary, is not an example of losing one's political soul. Indeed, as I have said before, while we need to be very cautious about theories that turn the world into simply discourses and that fly above the gritty materialities of real life, we are not in a church so we should not be worried about heresy (Apple, 2006). The key is the relationship between one's nuanced understanding and one's concrete political/educational action—and a willingness to build alliances and participate in the social agendas of other groups who suffer from the structures of this society. This will require using theoretical/political resources that are varied, but still intensely political and committed.

Without expanding our critical theoretical and empirical resources, we will not be able to answer two of the most crucial questions facing educators and activists today: What do the global realities that increasingly challenge education and teacher education look like? And, what can we as educators and community members do to alter these realities? These are questions that I have tried to answer in *Can Education Change Society?*, but I need to say more about them here.

Facing Reality

Before we go further, however, it is important to face reality, both in terms of the ways many educators, even many progressives who say that they are committed to social

justice in education, misrecognize the nature of educational reform and in terms of the daily lives of millions upon millions of people throughout the world.

Let us be honest. Much of the literature on educational reform, including much of the mainstream literature in teacher education, exists in something of a vacuum. It fails to place schooling sufficiently in its social and political context, thereby evacuating any serious discussion of why schooling in so many nations plays the complex roles that it does. Class and gender relations, racializing dynamics and structures, political economy, discussions of empire and colonialism, and the connections between the state and civil society, for example, are sometimes hard to find or when they are found they seem to be words that are not attached to any detailed analysis of how these dynamics actually work.

But this absence is not the more mainstream literature's only problem. It is all too often romantic, assuming both that education can drive economic transformations and that reforming schools by only focusing on the schools themselves and the teachers within them is sufficient. Policies that assume that instituting such things as performance pay for teachers or marketizing teacher education will basically solve the educational crises in inner cities provide clear examples of this tendency. Or it limits our attention only to schools, thereby cutting us off from powerful external interventions made in educational movements in communities among oppressed people. The naiveté of these positions is not only a historical; but it also acts as a conceptual block that prevents us from focusing on the real social, ideological, and economic conditions to which education has a dialectical and profoundly intricate set of connections (Anyon, 2014). A concern for social justice may then become more rhetorical than its proponents would like.

One of the most important steps in understanding what this means is to reposition oneself to see the world as it looks like from below, not above. Closely connected to this is another step, one that is directly related to the topic of this essay. We need to think internationally, to not only see the world from below, but to see the social world *relationally*.¹¹ In essence, this requires that we understand that in order for there to be a "below" in one nation, this usually requires that there be an "above" both in that nation and in those nations with which it is connected in the global political economy. Indeed, this demand that educators think relationally and face the realities of the global political, economic, and cultural context has been one of the generative impulses behind the growth of critical analyses of the relationship between globalization and education in the first place (Apple, 2010; Apple, Kenway & Singh, 2005).

Any future or current teachers who wish to take the issue of teaching in a global world seriously need to understand global realities *much* better than they often do today. For example, in *Cultural Politics and Education* (Apple, 1996), I spend a good deal of time discussing the relationship among "cheap French fries," the internationalization of the production of farm commodities, and the production of inequalities inside and outside of education. I focus on the connections between the lack of schools, well-educated teachers, health care, decent housing, and similar kinds of things in one particular Asian nation—all of which lead to immense immiseration—and the constant pressure to drive

down the cost of labour in the imperial center. My basic point is that the connections between the exploitation of identifiable groups of people in the “Third World” and the demand for cheap commodities—in this case potatoes—here in the United States may not be readily visible, but they are none the less real and extremely damaging. We might think of it as the “Wal-Martization” of the world economy.

Powerful descriptions of these relations are crucial and as conditions worsen, some deeply committed scholars are bearing witness to these realities in compelling ways. Perhaps one particularly powerful author’s work can serve as an example. It is a book that should be required reading for any teacher and teacher educator who wants to get a clearer picture of the conditions of people’s lives and of the resiliency and struggles in many of those nations and regions from where new populations are coming. If ever there was a doubt in anyone’s mind about the growth of these truly distressing conditions, Mike Davis’s volume *Planet of Slums* (2006) makes this reality crystal clear. At the same time, Davis also powerfully illuminates both the extent of, and what it means to live (exist is a better word) in, the immiserating conditions created by our need for such things as the “cheap French fries” that I pointed to. Let me say more about Davis’s arguments, since many of them stand at the very root of a more adequate understanding of the realities a vast number of people face throughout the world.

Davis provides us with a powerful analysis of political economy, of structures of dominance, one of the key elements that I mentioned in building an adequate understanding of globalization. And it does this not simply by rhetorically challenging the economic, housing, ecological, educational, and other policies that are advanced by international bodies such as the World Bank and the IMF and by dominant groups within the “less developed” world. Rather, Davis draws together empirical and historical evidence that demonstrates time and again not only the negative effects of dominant policies, but also—given the realities of poor peoples’ lives—*why* such policies cannot succeed (see also Robertson & Dale, 2009; Apple, Au & Gandin, 2009). And he does this by placing all of these proposals for reform directly into the contradictory necessities of daily life in the increasingly large and growing slums throughout the “less developed” world.

One third of the global urban population now lives in slums. Even more staggering is the fact that over 78 percent of urbanites in the least developed countries lives in slums (Davis, 2006, p.23). The economic crisis in these slums is experienced by the people living there in ways that are extraordinarily powerful. Rather than thinking about “jobs” in the usual sense of that term, it is better to think of “informal survivalism” as the major mode of existence in a majority of Third World cities (Davis, 2006, p.178).

Echoing the situation I described at the beginning of this section, Davis is clear on what is happening throughout the Third World. “As local safety nets disappeared, poor farmers became increasingly vulnerable to any exogenous shock: drought, inflation, rising interest rates, or falling commodity prices. Or illness: an estimated 60 percent of Cambodian small peasants who sell their land and move to the city are forced to do so by

medical debts” (Davis, 2006, p.15). This understanding allows him to show the dilemmas and struggles that people must face everyday, dilemmas and struggles that should force us to recognize that for the poor certain words that we consider nouns are better thought of as *verbs*.

Take “housing” for example. It is not a thing. Rather it is the result of a complex and ongoing—and often dangerous—trade-off among contradictory needs. Thus, the urban poor who live in the slums “have to solve a complex equation as they try to optimize housing cost, tenure security, quality of shelter, journey to work, and...personal safety.” And while the very worst situation “is a...bad location without [government] services or security” (Davis, 2006, p.29); in many instances these people have no choice. As Davis documents, the role of the IMF in this process is crucial to point out. Its policies, ones expressly supported by the United States, have constantly created these conditions and have made them considerably worse over time (Davis, 2006, pp. 66-69).

If all of this is so visible to Davis and many other committed people, why do the realities and very real complexities in this situation seem to be so readily ignored by governments, international agencies, and as Davis also demonstrates, a number of NGOs. Part of the explanation is that many Third World cities (and diasporic and poor populations of cities in the First World as well) exist in something like an epistemological fog, one that is sometimes willfully opaque. Most governments—and unfortunately not a few teachers in our urban areas and the teacher educators who teach them—know least about the slums, about the housing in them, about the services that they need and (almost always) don’t get, and so on. The lack of knowledge here provides an epistemological veil (Davis, 2006, p.42). What goes on under the veil is a secret that must be kept from “public view.” To know is to be subject to demands.ⁱⁱⁱ

It is important not to give the impression that the utter degradation that is being visited upon millions of people like the ones both Davis and I have pointed to has led only to a politics of simple acceptance. Indeed, as I argued earlier, one of the major elements we need to better understand is the agency of oppressed people inside and outside of education. This is certainly true in nations such as Brazil, India, and elsewhere. This much more respectful understanding is a crucial step in our rejecting the stereotypes that often go with an almost missionary sense that pervades teachers’ perspectives on global immigrants. “They are passive, less intelligent, and need to be saved.”

While Davis’s book is not a conscious response to Spivak’s well-known question “Can the subaltern speak?” (Spivak, 1988), it does provide a number of insights into where and how we should look to recognize the agency that does exist. Such agency may be partial and even contradictory, but it is nearly always present.

As Davis shows in his own accounts, the “informal proletariat” of these slums is decidedly *not* passive.

Even within a single city, slum populations can support a bewildering variety of responses to structural neglect and deprivation, ranging from charismatic churches and prophetic cults to ethnic militias, street gangs, neoliberal NGOs, and revolutionary social movements. But if there is no monolithic subject or unilateral trend in the global slum, there are nonetheless myriad acts of resistance. Indeed, the future of human solidarity depends upon the militant refusal of the urban poor to accept their terminal marginality within global capitalism. (Davis, 2006, p.202)

Davis's discussion of the ways in which resistance operates and its organizations and forms is thoughtful. It helps us think through the manifold and sometimes contradictory voices and identities taken up by subaltern groups (Apple & Buras, 2006). Just as crucially, it documents how creative poor people are. This makes me stop and wonder whether many current and future teachers and many teacher educators actually recognize how powerfully resilient and creative the parents and communities of their diasporic students actually are. Only if these characteristics are recognized can we engage in a politics of recognition and respect and see global diasporic people as *resources of hope* in our schools and communities. They have already demonstrated through their lives how much they are willing to sacrifice and constantly struggle to assist their children in having a better life. Why do so many educators here in the United States look at them as if they were uncommitted to education and simply knowable by their economic circumstances now? Perhaps by thinking of words such as housing and food as *verbs*, as requiring constant labour and constant strategic and intelligent action, we might give "the other" the respect they have earned.

Planet of Slums provides us with a deeply honest account of the realities and complex struggles in which diasporic people engage. We cannot, however, ignore education's role in challenging such immiseration. Indeed, as the aforementioned example of Porto Alegre in Brazil so clearly shows, when deeply connected to a larger project of critical social transformation, educational transformations in schools, in the relationship between schools and communities, and in teacher education can and do take on crucial roles in altering the relationship between the state and local communities, in radically challenging the unequal distribution of services, and in helping to create new activist identities for slum dwellers and for the teachers of their children, and in using local resources to build new and very creative forms of oppositional literacy (Apple, 2013a; Apple, 2010; see also Fisher, 2009; Apple, et al., 2003; Apple & Buras, 2006). Combining Davis's thoroughly unromantic picture of the conditions, struggles, and creative resilience of the poor with a recognition of the ways in which schools such as those in Porto Alegre can often serve as arenas for building toward larger social transformations (see Apple, et al., 2003, Apple and Buras, 2006; Apple, Au and Gandin 2009; Apple, Ball & Gandin, 2010)—and how teacher education programs can participate in assisting in these transformations—can provide us with some of the tools we need to go forward.

Inside the Global North

My discussion in the previous part of this article has largely been on the Third World and the “Global south.” But even given the immensity of the problems that are occurring in the slums to which Davis bears such eloquent witness, we also need to focus a good deal of our attention on what is (perhaps too arrogantly) called the “First World.” We need to do this for a number of reasons. First, there is ever-growing immiseration within this part of society, stimulated by exploitative economic conditions and the international divisions of labour and border crossing populations that accompany this, by the move toward what has been called “knowledge economies” and new definitions of what are “required skills,”^{iv} and of who does and does not have them (Apple, 2010; Lauder, Brown, Dillabough & Halsey, 2006), by the severe economic crisis so many nations are experiencing, and by the fact that in essence “the Empire has come home” (Centre for Contemporary Cultural Studies, 1982).

Second, as I mentioned earlier, we need to think relationally. There are extremely important connections between crises in the “center” and those on the “periphery.” Of course, even using such words to describe these regions is to reproduce a form of the “imperial gaze” (see, for example, Said, 1993; Bhabha, 1994). Yet, not to focus on what is too easily called the center, can lead us to forget something else. Not only do economic, political, and ideological crises in those nations “at the center” have disastrous consequences in other nations and regions, but the more privileged lives of many people in these more advantaged nations and regions also require that other people living there pay the costs in the physical and emotional labour that is so necessary to maintain that advantage.

As Pauline Lipman has clearly demonstrated in her discussion of educational reforms in Chicago, the advantages of the affluent in global cities (New York, Chicago, Los Angeles, London, Mumbai, and so many others) depend on the availability of low paid—and gendered and raced—“others” who are “willing” to do the labour that underpins the affluent life-styles of those higher up on the economic ladder (Lipman, 2004). No analysis of the realities of schooling in cities in the United States or of the relations between cities, suburbs, and rural areas in the United States for example can be complete without this an understanding of how schooling is implicated in these relations. And no significant changes in preparing teachers to teach in these areas can be successful if these realities are not given due attention.

This is not only the case in our urban areas. Throughout the rural regions and small towns of the United States, large numbers of Latino/as are working on farms, in meat-packing plants, and in similar occupations. Their labour (often in deeply exploitative conditions) also underpins the “American lifestyle.” This says something important about what teachers and teacher educators often assume about globalization. It is seen as a “problem” of cities. This is decidedly not the case. Just as the growth of the United States economy depended originally on slavery, on the unpaid domestic labour of women in homes and on farms, on the removal of native populations from the land, on a large

numbers of workers from all over the world, so too do we now massively benefit from the often unseen labour of these urban and rural workers today. Thus, once again, rather than seeing poor diasporic students and their parents and communities as problems to be “fixed,” we must first start out by acknowledging our *debt* to them. Their labour underpins our relative affluence.

Like all educators, teacher educators themselves need more adequate pictures, and theories that give these pictures meaning, that provide more powerful critical insights and descriptions of what all this means for our work. Having future and current teachers come to grips with a critical analysis that places the schools into urban and rural political economies, that demonstrates how the lives of so many more middle class and affluent urban and suburban dwellers are fully dependent on low paid and often disrespected immigrant and migrant labour, is crucial if teachers and their educators are to recognize the contributions of globalized workers both here in the United States and around the world. Critical intellectual resources—theoretical and historical—are essential tools here.

The Uses of “Powerful” Theory

In order to fully understand this, I need to say more about the word “theoretical” in the previous paragraph and its place in critical work in education on issues surrounding globalization. In so doing, I want to ground the current section of this article in what may seem a somewhat odd, and partly autobiographical, way. When I was being trained as a teacher (I use the word trained consciously), I went to a small state teachers college at night. Nearly every course that I took had a specific suffix—“for teachers.” I took “Philosophy for Teachers,” “World History for Teachers,” “Mathematics for Teachers,” “Physics for Teachers,” and so on. The assumption seemed to be that since I had attended inner city schools in a very poor community—a community that had a large immigrant population and had been rocked by economic decline caused by the mobility of capital and its factories as they moved to nations where labour was less organized and could be more completely exploited—and was going back to teach in those same inner city schools, I needed little more than a cursory understanding of the world around me, of the disciplines of knowledge, and of the theories that stood behind them. Theory was for those who were above people such as me. As long as I had some grounding in various practical teaching methods, I would survive.

There were elements of good sense in this. After all, when I had been taught particular kinds of theory both at that small state teachers college and even at times later on in my graduate studies, it was all too often totally disconnected from the realities of impoverishment, racism, class dynamics, gendered realities, decaying communities and schools, cultural struggles, global forces, diasporic peoples, and the lives of teachers and community members. It too often also was disconnected from critically democratic educational practices. The realities of teaching, curriculum, and assessment in constantly changing urban and rural schools were in essence seen as forms of “pollution” that would somehow dirty our search for pure theory.

But the elements of bad sense, of being intellectually marginalized because of my class background and of being positioned as a “less than,” were palpable. For me and many others who grew up poor in that largely immigrant community and who wanted to more fully understand both our own experiences and why schooling, the economy, and indeed the world itself, looked the way they did, the search for adequate explanations became crucial. Learning and using *powerful* theory, especially powerful *critical* theories, in essence, became a counter-hegemonic act. Getting better at such theories, employing them to more fully comprehend the ways in which differential power actually worked, using them to see where alternatives could be and are being built in daily life, and ultimately doing all this in what we hoped were non-elitist ways gave us two things.

First, all of this made the realities and complexities of dominance both sensible—and at times depressing. But, second, it also provided a sense of freedom and possibility, especially when it was connected to the political and educational *actions* in which many of us were also engaged. These same experiences could be spoken of by members of many other groups who have been marginalized by race, by sex/gender, by class, by colonialism, and by an entire array of other forms of differential power.

I say all this here because these memories remind me of some of the reasons why critical theoretical, historical, political, and empirical resources are so essential to creating a richer and more detailed understanding of the society in which we live and the role of education and teacher education in it. New and more honest political and ethical perspectives provide resources for building and defending more politically and ethically wise responses in policies, schools, classrooms, and teacher education programs—if once again these theories are also connected to specific movements and actions and to the major transformations that are occurring in our schools and communities.

First Principles

But how are these theoretical, historical, political, and empirical resources to be mobilized? There are some key principles that are significant in this regard. Over the past four decades, I and many others have argued that education must be seen as a political act. As I stated earlier in this article, we need to think *relationally*. That is, understanding education requires that we situate it back both into the unequal relations of power in the larger society and into the realities of dominance and subordination—and the conflicts—that are generated by these relations. Take the issues surrounding the curriculum, for example. Rather than simply asking whether students have mastered a particular subject matter and have done well on our all too common tests, we should ask a different set of questions: Whose knowledge is this? How did it become “official”? In our increasingly globalized world, what is the relationship between this knowledge and the ways in which it is taught and evaluated and who has cultural, social, and economic capital in this society and others? Who benefits from these definitions of legitimate knowledge and from the ways schooling and this society are organized and who does not? How do what are usually seen as “reforms” actually work? What can we do as critical educators, researchers, and activists to change existing educational and social

inequalities and to create curricula and teaching that are more socially just (Apple, 2014; Apple, 2013a; Apple, 1996; Apple, 2012; Apple, et al., 2003; Apple and Beane, 2007; Lipman, 2004; Buras, 2008; Au, 2009; Gutstein, 2006; Valenzuela, 2005; North, 2009)?

As I also stated, answering these questions also requires that we engage in the process of *repositioning*. That is, we need to see the world through the eyes of the dispossessed and act against the ideological and institutional processes and forms that reproduce oppressive conditions. Engagement with this process has led to a fundamental restructuring of what the roles of research, researcher, teacher, and teacher educator are (Apple, Au and Gandin, 2009; Weis and Fine, 2004; Smith, 1999). This role has been defined in many ways, but perhaps the best descriptions center around what the Italian political activist and theorist Antonio Gramsci (1971) called the *organic intellectual* and the cultural and political historian Russell Jacoby (2000) termed the *public intellectual* (see also Burawoy, 2005).

The restructured role of the researcher and teacher educator—one who sees her or his task as thinking as rigorously and critically as possible about the relations between the policies and practices that are taken for granted in education and the larger sets of dominant national and international economic, political, and cultural relations, and then connects this to action with and by social movements—is crucial to the task of a more invigorated and critical teacher education. In order to more fully understand this, I need to say more about the specific tasks of the critical scholar/activist in education. Although some of these arguments are developed in more detail elsewhere (see Apple, 2013a; Apple, 2010; Apple, Au and Gandin, 2009), detailing the complexities of this role will enable us to see more clearly what we need to do in the context of growing global inequalities and can push us toward an enlarged sense of our intellectual and political responsibilities as teacher educators.

On the Tasks of the Critical Scholar/Activist in Education

There are nine tasks in which critical analysis (and the critical analyst) in education and teacher education must engage.^v

1. It must “bear witness to negativity.”^{vi} That is, one of its primary functions is to illuminate the ways in which educational policy and practice are connected to the relations of exploitation and domination—and to struggles against such relations—in the larger society.^{vii} For all educators and especially the educators of our current and future teachers, this requires a firmer foundation in global realities, in the ways in which our actions are affected by and strongly affect other nations and regions, and in the debts we owe.
2. In engaging in such critical analyses, it also must point to contradictions and to spaces of possible action. Thus, its aim is to critically examine current realities with a conceptual/political framework that emphasizes the spaces in which more progressive and counter-hegemonic actions can, or do, go on. This is an absolutely

crucial step, since otherwise our research can simply lead to cynicism or despair. In this regard, as we document the dangers of the powerful attacks on critically democratic educational policies and practices in schools and in teacher education programs, we also should do so with an eye to where we can make gains at the same time (see, e.g., Cochran-Smith, et al., 2008; Cochran-Smith, et al., in press; Zeichner, 2009; McDonald, 2005; McDonald & Zeichner, in press).

3. At times, this also requires a broadening of what counts as “research.” Here I mean acting as critical “secretaries” to those groups of people, social movements, and teacher educators who are now engaged in challenging existing relations of unequal power or in what elsewhere has been called “non-reformist reforms,” a term that has a long history in critical sociology and critical educational studies (Apple, 2014) and one that might also productively find its way into the thoughtful discussions in teacher education. This is exactly the task that was taken on in the thick descriptions of critically democratic school practices in *Democratic Schools* (Apple and Beane, 2007) and in the critically supportive descriptions of the transformative reforms such as the Citizen School and participatory budgeting in Porto Alegre, Brazil (see Gandin, 2006; Apple, 2013a; Apple et al., 2003). Thus, we need to redouble our efforts at compelling descriptions of existing critically democratic teacher education programs and of their effects in creating deeply committed and successful teachers of *all* students (Cochran-Smith, et al., 2008; Zeichner, 2009; McDonald, 2005).
4. When the noted Italian political theorist and activist Antonio Gramsci (1971) argued that one of the tasks of a truly counter-hegemonic education was not to throw out “elite knowledge” but to reconstruct its form and content so that it served genuinely progressive social needs, he provided a key to another role “organic” and “public” intellectuals might play. Thus, we should not be engaged in a process of what might be called “intellectual suicide.” That is, there are serious intellectual (and pedagogic) skills in dealing with the histories and debates surrounding the epistemological, political, and educational issues involved in justifying what counts as important knowledge and what counts as an effective and socially just education in general and in teacher education programs in particular to prepare teachers to engage in such an education. These are not simple and inconsequential issues and the practical and intellectual/political skills of dealing with them have been well developed. However, they can atrophy if they are not used. We can give back these skills by employing them to assist communities in thinking about this, learning from them, and engaging in the mutually pedagogic dialogues that enable decisions to be made in terms of both the short-term and long-term interests of dispossessed peoples (see Burawoy, 2005; Freire, 1970; Borg & Mayo, 2007).
5. In the process, critical work has the task of keeping traditions of radical and progressive work alive. In the face of organized attacks on the “collective memories” of difference and critical social movements, attacks that make it increasingly difficult to retain academic and social legitimacy for multiple critical approaches that have proven so valuable in countering dominant narratives and relations, it is

absolutely crucial that these traditions be kept alive, renewed, and when necessary criticized for their conceptual, empirical, historical, and political silences or limitations. This involves being cautious of reductionism and essentialism and asks us to pay attention to what following Fraser I have called both the politics of redistribution and the politics of recognition (Fraser, 1997; see also Anyon, et al., 2009). This includes not only keeping theoretical, empirical, historical, and political traditions alive but, very importantly, extending and (supportively) criticizing them. And it also involves keeping alive the dreams, utopian visions, and “non-reformist reforms” that are so much a part of these critical traditions in education and in teacher education (Apple, 2014; Jacoby, 2005; Teitelbaum, 1993).

6. Keeping such traditions alive and also supportively criticizing them when they are not adequate to deal with current realities cannot be done unless we ask “For whom are we keeping them alive?” and “How and in what form are they to be made available?” All of the things I have mentioned above in this taxonomy of tasks require the relearning or development and use of varied or new skills of working at many levels with multiple groups. Thus, journalistic and media skills, academic and popular skills, and the ability to speak to very different audiences are increasingly crucial (Apple, 2006). The popularity of neo-liberal and neoconservative criticisms of teacher education programs and of schools of education themselves and the Right’s ability to circulate these criticisms widely points to the importance of our finding ways of interrupting these arguments and of showing their weaknesses. This requires us to learn how to speak in different registers and to say important things in ways that do not require that the audience or reader do all of the work. Of crucial import right now is the ability to expand the spaces of articulate uses of the media so that different ideas about the power of critically democratic teacher education programs circulate widely (see, e.g., Boler, 2008).
7. Critical educators must also *act* in concert with the progressive social movements their work supports or in movements against the rightist assumptions and policies they critically analyze. This is another reason that scholarship in critical education implies becoming an “organic” or “public” intellectual. One must participate in and give one’s expertise to movements engaged in actions to transform both a politics of redistribution and a politics of recognition. It also implies learning from these social movements (Anyon, 2005) and listening carefully to the needs and accumulated wisdom of diasporic people. This means that the role of the “unattached intelligentsia” (Mannheim, 1936), someone who “lives on the balcony” (Bakhtin, 1968), is not an appropriate model. As Bourdieu (2003, p. 11) reminds us, for example, our intellectual efforts are crucial, but they “cannot stand aside, neutral and indifferent, from the struggles in which the future of the world is at stake.”
8. Building on the points made in the previous paragraph, the critical scholar/activist in teacher education and in other areas of education has another role to play. She or he needs to act as a deeply committed mentor, as someone who demonstrates through her or his life what it means to be *both* an excellent researcher and teacher and a

committed member of a society that is scarred by persistent inequalities. She or he needs to show how one can blend these two roles together in ways that may be tense, but still embody the dual commitments to exceptional and socially committed research and participating in movements whose aim is interrupting dominance. It should go without saying that she or he needs to embody all of these commitments in her or his teaching. If we do not embody these global understandings and social/educational commitments in our own classes, how can we expect that our students—our current and future teachers—will do this in their own settings (see, Zeichner, 2009; Cochran-Smith, et al., 2008)?

9. Finally, participation also means using the privilege one has as a scholar/teacher/activist. That is, each of us needs to make use of one's privilege to open the spaces at universities and elsewhere for those who are not there, for those who do not now have a voice in that space and in the "professional" sites to which, being in a privileged position, you have access. This can be seen, for example, in the history of the "activist-in-residence" program at the University of Wisconsin Havens Center for Social Structure and Social Change, where committed activists in various areas (the environment, indigenous rights, housing, labour, racial disparities, education, and so on) were brought in to teach and to connect our academic work with organized action against dominant relations. Or it can be seen in a number of Women's Studies programs and Indigenous, Aboriginal, and First Nation Studies programs that historically have involved activists in these communities as active participants in the governance and educational programs of these areas at universities. What roles might community activists from diasporic and global rights groups play in our teacher education programs and in challenging the ways in which we think about and interact with their children, their schools, and their communities?

The list is not meant to be a final one. But it suggests a range of responsibilities, many of which of are currently being taken very seriously in some of our teacher education programs (Zeichner, 2009; Cochran-Smith, et al, 2008; McDonald, 2005; McDonald & Zeichner, in press). Of course, no one person can do all of these things simultaneously. These are *collective* responsibilities, ones that demand a cooperative response. But these varied tasks should constantly be on the minds of all of us who are dedicated to building teacher education programs that deal powerfully with the global realities our current and future teachers will increasingly face.

Some Final Thoughts

In taking these tasks as seriously as they deserve, we can be grounded in something that Ricardo Rosa has articulated. As he has said, "For new structures to come into being and new political engagements to be nurtured, it is necessary that we have a language to bring it into existence—a lexicon of change, so to speak." (Rosa, 2008, p.3). One of these languages of course is the language of globalization. But this language can both open and close at the same time. It can provide us with powerful resources of understanding and of possible educational actions, but only if it is connected to a rich

and detailed sensitivity to complexity, to politics, to cultural struggles both here and abroad, to an enhanced sense of agency and respect for those whom this society all too often sees as “the other,” and finally to a recognition of the debts we must repay to those who labour so hard for our benefit.

The language of globalization speaks to the constant struggles both to more fully understand the global and local forces of dominance and to keep them from preventing or destroying an education worthy of its name. These struggles for what I have elsewhere called *thick democracy* occur both inside and outside of schools, colleges, and universities (Apple, 2013a; Apple, 2006). They signify the continuation of what Raymond Williams (1961) so felicitously called “the long revolution,” the ongoing movements in so many nations to create a vision of critical democracy and critical teaching that responds to the best in us.

A key here is what I mentioned in my taxonomy of tasks in this article: *non-reformist reforms*. Reforms such as building and defending schools and teacher education programs that are grounded in more global realities, that can be jointly controlled by all of the people involved, and that may partly interrupt dominance are crucial. But of the many reforms that are needed, we should engage in those that we predict will more clearly lead to expanding the space of further interruptions. Reforming teacher education programs and institutions must be done with an eye toward their role in expanding the space of even more critically democratic reforms (Zeichner, 2009).

The ongoing relations among education and dominance/subordination and the struggles against these relations are exactly that, the subject of struggles. The constant attempts by real people in real movements in real economic, political, and ideological conditions to challenge their circumstances—and the ensuing actions by dominant groups to regain their hegemonic leadership and their control of this terrain—makes any statement about a final conclusion meaningless. What we can do is to help ensure that these movements and counter-hegemonic activities in teacher education and in the schools and communities such programs ultimately serve are made public and that we honestly ask ourselves what our roles are in supporting the struggles toward the long revolution.

What I personally can hope for is that the critical theoretical, educational, and political resources I have suggested here can help us “bear witness,” illuminate spaces for critical work, keep alive the multiple critical traditions in teacher education and the larger field of education, and act as secretaries for the tendencies, movements, and people who demand something better for themselves, their children, their schools, and their teachers in a world filled with both pain and possibility. The first step is having a firmer understanding of globalization and its effects. But let us then take the many steps that follow.

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Notes

- ⁱ Versions of the arguments advanced in this article can be found in Apple (2010) and Apple (2013b).
- ⁱⁱ Such relational understanding is also based in a recognition of the importance of Bourdieu's comment that "Intellectual life, like all other social spaces, is a home of nationalism and imperialism" (Bourdieu 1999, p. 220).
- ⁱⁱⁱ Thus, here the very *lack* of Foucault's panopticon (Foucault 1977) constitutes a form of control. This is a political and conceptual intervention that is not overtly made by Davis, but it is a significant one. I hope that it causes some of those within the post-modern educational research community within teacher education and the general research community who are uncritically wedded to Foucault as a theorist of new forms of control to raise questions about whether the *absence of knowledge* and the absence of the panopticon may be equally as important when we are talking about massive structural global inequalities such as those being discussed here.
- ^{iv} The concept of "skill" is not a neutral word. It is an ideological and political concept. For example, the work that women and minoritized people have historically done has had a much harder time being labeled as skilled labor.
- ^v These tasks are developed in much more detail in Apple (2013a).
- ^{vi} I am aware that the idea of "bearing witness" has religious connotations, ones that are powerful in the West, but may be seen as a form of religious imperialism in other religious traditions. I still prefer to use it because of its powerful resonances with ethical discourses. But I welcome suggestions from, say, Muslim critical educators and researchers for alternative concepts that can call forth similar responses. I want to thank Amy Stambach for this point.
- ^{vii} Here, exploitation and domination are technical not rhetorical terms. As I noted, the first refers to economic relations, the structures of inequality, the control of labour, and the distribution of resources in a society. The latter refers to the processes of representation and respect and to the ways in which people have identities imposed on them. These are analytic categories, of course, and are ideal types. Most oppressive conditions are partly a combination of the two. These map on to what Fraser (1997) calls the politics of redistribution and the politics of recognition.

Redefining teacher education and re-imagining teaching: a case of a teacher training college

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Abstract: The challenges facing the 21st education system globally and in particular teacher education, teaching and research as a discipline in a consistent and disciplined manner is explored. Education is pivotal to the socio-economic development of any society because “education is not a preparation for life; education is life itself”. A critical discourse analysis is employed to [re]define teacher education globally, re-imagining teaching locally at teacher training college by comparing it with the metaphorically Phoenix. In [re]defining an ‘institution of teacher education’ for reaccreditation, I discusses in this conceptual paper, the challenges and changes in higher education globally. Furthermore, several concerns in relation to the prevalent negative views of the teaching profession is discussed. Furthermore, a rethink is necessary by integrating technology-based teaching and learning strategies in teacher education programs for sustainable development. This is crucial to accommodate the digital natives and digital immigrants into the main stream to select technology tools to help them obtain information in a timely manner, analyze and synthesize the information, and present it professionally. Several strategies are recommended to [re]define teacher education globally, by re-imagining teaching locally.

Diasporic population constitute an ever-growing proportion of children in the US schools. This is one of the reasons why there is a need to think about education globally. This paper begins with arguing for the need of a broader understanding of the effects and implications of globalization on the contexts and roles of teachers and teacher educators in these changing situations. It then underlines some “first principles” that may guide the understandings and actions of these educators in this context. It concludes by outlining the tasks of the critical scholars and activists that emerge in relation to the restructured role of the educators in the wake of the interfaces between globalization and politics of education.

Keywords: Teacher training, technology-based teaching and learning, teacher education

Introduction

The challenges facing our education system globally and in particular India as developing countries and the continent, which [re]define teacher education, re-imagine teaching and research of education as a discipline in a consistent and disciplined manner. Education is pivotal to the socio-economic development of the society because “*education is not a preparation for life; education is life itself*” (John Dewey) as far as we are concerned. The primary focus of teacher education programs are the training of a professional educator, a dedicated and knowledgeable school leader-manager and an

enlightened planner and policy maker who is committed to reflective teaching and education in general as a lifelong career. A professional teacher researcher does not only impart knowledge and skills to his or her learners. But he or she is committed to the initiation of our children “into a life of spirit, a training of the human soul in the pursuit of truth and the practice of virtue” (Vijay Lakshmi Pandit) so that they become useful citizens in our society and responsible members of their families. Therefore your current curriculum reform efforts will focus on the development of programs that re-focus on teacher professionalism, situated learning, and pedagogical content knowledge as central to the process of teacher education and development. From this short introduction, this paper focused on teacher education as means to [re]define teacher training globally, re-imagining teaching locally at a teacher training college. To achieve the objective of this conceptual paper, a [re]defining an ‘institution of teacher education” for reaccreditation, the discussion of the challenges and changes in higher education globally is explored in particular how it might impact on teacher training. Furthermore, several concerns in relation to the prevalent negative views of the teaching profession is explained. Lastly, the [re]-invention of integrating technology-based teaching and learning strategies into teacher education programmes.

[Re]defining Teacher Education

For purposes of this conceptual paper, the term “institution of teacher education” means an educational institution in any State that:

- (1) Admits as regular students persons having a certificate of graduation from a school providing secondary education, or the recognized equivalent of such a certificate, or persons who meet the requirements of that institution;
- (2) Is legally authorized within such State to provide programme of education beyond secondary education;
- (3) Provides educational programmes for which the institution awards a bachelor’s degree or provides not less than a two-year programme that is acceptable for full credit toward such a degree, or awards a degree that is acceptable for admission to a graduate or professional degree program, subject to review and approval by the Secretary;
- (4) Is a public or other non-profit institution; and
- (5) Is accredited by a nationally recognized accrediting agency or association, or if not so accredited, is an institution that has been granted pre-accreditation status by such an agency or association that has been recognized by the Secretary for the granting of pre-accreditation status, and the Secretary has determined that there is satisfactory assurance that the institution will meet the accreditation standards of such an agency or association within a reasonable time.

In view of the preceding definition of an “institution of higher education”, therefore colleges of teacher education, which for decades strive to be institutions of excellence by

serving the community at large. The challenge for most institutions are to [re]define it's role as an institution of higher learning providing opportunities and set the pace for next decade to educate teachers to be change agents. To achieve and remain an institution of relevance and excellence in Teacher Education, this conference can/must be the impetus/watershed moment to accelerate the core values as set out in the vision and mission of this training college. To be an institution of excellent requires each member of this institute to make the core values their own. At the institution, such the University of South Africa (Unisa), the College of Education instil and strive to live out the 11C's in their daily praxis. This is the institution's driving force, the fuel for their engine for change and excellence. The same is also true about the Bombay Teacher Training College (BTTC) whereby they strive to be excellence in training teachers as change agents. To achieve these noble objective, Unisa as well BTTC, are facing enormous global challenges in relation to develop student teachers globally.

In the next paragraph, the challenges facing higher educations globally are discussed.

Challenge and Changes in Higher Education Globally

Graduate employability is usually placed within the context of a 'knowledge' economy and in the context of a locally, nationally and globally competitive labour market environment as well influences by national imperatives (Vasagar and Shepherd, 2010). Embedding employability into the core of higher education sector will continue to be a key priority of governments, universities and colleges, and employers' agenda. This will bring significant private and public benefit, demonstrating higher education's broader role in contributing to economic growth as well as its vital role in social and cultural development. It is important here that a distinction between employment as a graduate outcome, that may be measured and used within the information published by universities, and the issue of a pedagogy for employability, which relates to the teaching and learning of a wide range of knowledge, skills and attributes to support continued learning and career development. I therefore reiterate that developing employability skills for graduates is a critical issue for the higher education sector, but in particular teacher education, not only in relation to the first job that students may gain after their studies, but also important for graduate prospects at future points of career development or change. In addition, for the globally 9.2 million part-time and distance learners, many of whom are already working, developing employability through higher education study is part of a lifelong learning process both to improve employment prospects and to achieve personal learning goals.

Sustainable Teacher Education Programmes: A Case of Bombay Teachers Training College

The Bombay Teachers' Training College (BTTC) which clearly demonstrated and is a shining example of what could be achieved through hard work by obtaining an accredited "A" grade in 2004 which ultimately proved that how you reconstructed your teacher education programmes for the demands of education [national imperatives],

Redefining teacher education and re-imagining education

globally and locally, as an institution of excellence. BTTC as an institution arise like the *Phoenix from the ashes* to be a college which remains relevant and provide excellent training opportunities for teachers and students in India and globally. To remain in this league, BTTC shows “servant leadership” to their community who arise above many challenges of budgetary constraints, low increase of student enrolment, lack of enough facilities ect but this institution is set to strive in the quest for excellent as set out in the vision statement of the college. Please take heart from the case of the metaphorically *Phoenix*. Build on the last decade of what works in BTTC teacher education programmes- This institution stick to the things which work for them but [keep doing the right things better- do not change for the sake of change but stick to the success formula [re]thinking strategically on those aspects/challenges for improvement. BTTC introduces benchmark what have worked and [re]define] some of core values were change and rethought.

Having made the distinction between employment and employability, it is important that we are aware of the different employment environments that graduates participate in, and that gain from higher education for those that participate continue to be unevenly distributed (Korthagen and Wubbels, 2001). BTTC can rise up to this challenge for the next decade and beyond by playing a greater role by supporting student population with public-private partnerships/initiative on job placements [employment in public and private schools]. By supporting teachers and student teachers, BTTC will be strengthening relationships with stakeholders and provide sustainable future relevant teacher education programmes. Through experience, it remains the case that the opportunities to gain initial graduate-level employment for student teachers after graduation are influenced by a number of factors. These are:

- the status and reputation of the institution attended, in this case Bombay Teacher Education programmes that some private and government (employers) continue to choose to recruit new graduates from particular institutions in which they have built up confidence (Brown and Hesketh, 2004), often the more ‘prestigious’ universities (BTTC);
- the gateway subject(s) studied (Mathematics, Science, Accounting, English Language, Engineering ect) and labour market factors have an effect on the speed with which graduates obtain their first graduate-level job (Purcell and Elias, 2004);
- graduates from some ethnic backgrounds find it difficult to gain employment comparable to that gained by the ethnic majority and some other ethnic groups (Blasko et al., 2002);
- a similar situation applies in respect of graduates from lower socio-economic groups (Vasagar and Shepherd, 2010; Blasko et al., 2002) and for graduates with disabilities (Brown and Hesketh, 2004).

Emanating from the latter, effective pedagogy demands consistent policy frameworks redefinition, with support for learning for diverse students as their main focus at the institute. Policies at government, system, institutional and organisational level need to

recognise the fundamental importance of learning for the individual, teams, organisational, institutional, national and system success. This is where BTTC passed with flying colours as that of the rising Phoenix bird and setting new standards and benchmarks in teacher training. During the previous cycle, BTTC re-defined several policies by inputs of all stakeholders and maximum community involvement. BTTC as a teacher training institution reviewed policies and programmes by [re]designing and re-imagining the teaching learning programmes. BTTC as a case of excellence in education decided to create effective, enabling and equitable learning programmes and environments for all student teachers to benefit socially and economically.

[Re]-imagining Teaching Locally: Changing the Negative Views of the Teaching Profession

The teaching profession remains under siege (Pinar, 2004), and more and more teachers are leaving the profession after only a few years in the school setting. Those who remain in the profession work harder but too often, with less reward. The satisfactions of this impossibly complex and difficult profession are less and less obvious in this era of accountability and high stakes testing. Traditional satisfactions of teaching often espoused in the literature are harder to realize and even harder to believe in. In a graduate class I recently taught, an interesting occurrence took place. The class citizenry consisted of folk already engaged in, or committed to, the teaching profession, and we gathered in the late afternoon and early evening every week to study. BTTC as an institution of excellent is to [re]define education and expanding horizons by rising as the *Phoenix* bird. In pursuing this ultimate goal in quality education in this 21st century as the centre for excellence, the essential purpose of education as cultivating citizenship in a democratic order where decision-making based on rational evidence is fundamental to stability and sustainable economic development. To achieve the goal true “servant leadership”, BTTC demonstrated ultimately a passion for quality service for all student teachers. Herewith are crucial issues that BTTC over the last decade demonstrated true “servant leadership” by:

- Setting an example of relevance and excellence [this is reflected in BTTC vision, mission statements and in the core values];
- Providing the necessary competencies for relevant praxis [school-based / work-integrated learning];
- Setting standards for quality assurance in teacher education programmes [use recommendation from re-accreditation outcomes as benchmarking and set clear targets for improvement];
- Building relationships a public-private partnership [create and build communities of practices]; and
- Executing servant leadership throughout well constructive and relevant teacher training programmes.

The next challenge is to put theory into practice. Teaching can be challenge but BTTC took up this challenge and rising to new heights and set benchmarks for the 21st century challenges and beyond in teacher education. This is evident through the various learning programs and degree course to meet the needs of the country.

Integration of Course Curricula between Foundational Courses and Subject Methods Courses

The teacher education curriculum historically has been divided between foundations courses, on the one hand, and teaching methodology (pedagogy) courses, on the other. Foundations courses are meant to provide the ‘foundational,’ which often meant disciplinary knowledge for teaching. Such knowledge would include knowledge of learners and learning, from educational psychology; knowledge of the purposes of school, taken from history and philosophy of education; and knowledge of school and classroom structures. Methods courses have generally included the courses most focused on practice, including courses related to the teaching of particular subject matter, classroom management, and assessment.

Embedded within this curricular division is the distinction between the goals of these courses. Foundational courses are meant to impart ‘conceptual tools’ – the principles, frameworks, or guidelines that teachers use to guide their decisions about teaching and learning (Grossman, Smagorinsky, and Valencia 1999). These tools may include general, applicable theories such as constructivist theories of learning, motivation, and instructional scaffolding or more philosophical views related to the purposes of schooling such as social justice and the goal of improving educational opportunities for historically under-served students. Conceptual tools facilitate teachers’ framing and interpretations of practice, but they do not offer specific solutions for negotiating the dilemmas that arise in interactions with students.

Methods courses, in contrast, historically have been designed to help students develop strategies and tools for teaching. These courses are more likely to be seen as providing teachers with ‘practical tools’ – the kinds of practices, strategies, and relationships that teachers can enact in classrooms as they strive to accommodate the needs of students and challenge them with intellectually rigorous content (Grossman et al., 1999). While conceptual tools are general in nature, practical tools are specific, concrete, and meant to be enacted in classrooms. On the other hand, we see practical tools as not purely technical strategies divorced from the intellectual, but rather as defined through a socio-cultural perspective (Chaiklin and Lave, 1996). In this view, practice incorporates both the technical and the intellectual, and is enacted not by single individuals but as members of a broader community of practice (Grossman and McDonald, 2008; Chaiklin and Lave, 1996; Grossman et al., 2009; Miller and Goodnow, 1995). Even in methods courses, the emphasis may be more on learning *about* instructional methods and less about learning to enact such practices fluidly. As Lampert (2005) comments:

Currently, teacher education in the US is built around a collection of 'methods' courses in which prospective teachers learn about what methods exist for teaching particular subjects and how they are grounded in educational theory and research. For teachers already out in schools, new methods are taught in courses or in workshops offered at the school site. But learning about a method or learning to justify a method is not the same thing as learning to do the method with a class of students, just as learning about piano playing and musical theory is not learning to play the piano. The latter requires getting one's hands on the instrument and feeling it 'act back' on one's performance. Because teaching is situated in instructional interaction, learning how to teach requires getting into relationships with learners to enable their study of content. It is here that one learns how to teach as students 'act back' and responses must be tailored to their actions (p. 36).

In view of the latter, this separation between methods courses and foundations courses, and their respective aims is problematic for a variety of reasons:

- It contributes to the fragmentation that so many teacher educators have identified as problematic in teacher preparation, in particular, the disconnection between theoretical knowledge and teachers' practical work in classrooms;
- It relegates issues regarding the practices of teaching to particular courses rather than integrating them throughout teachers' professional preparation and
- It places the focus of learning to teach upon the conceptual underpinnings of teaching as opposed to the concrete practices new teachers may need to enact when they begin teaching – practice is not at the core of the curriculum (Grossman and McDonald, 2008).

[Re]designing Quality Teacher Education Programmes, Pedagogy and Courses

The divide between theory (Subject Content Knowledge), practice (Pedagogical Content Knowledge) and ICT (Pedagogical Technical Content Knowledge) in teacher education is best exemplified by the historical separation between university-based course work and fieldwork in local primary and secondary schools. An underlying assumption of this separation is that the theoretical resides in university course work and the practical resides in school-based placements. Often, teacher education lecturers emphasize the conceptual tools for teaching within coursework and consider school placements as the sites where pre-service teachers can enact these concepts through their engagement with specific strategies (Rosaen and Florio-Ruane, 2008).

Numerous scholars in the field of teacher education have challenged this assumption. In 1904, John Dewey argued that professional instruction of teachers necessarily must include both theoretical and practical work, raising the question of how theory and practice relate in the context of professional education and in particular to initial teacher education programmes. Since then and particularly once teacher education became part of the university, teacher educators have been challenged to conceptualize the relationship between theory and practice and to develop structures and practices within

professional preparation that support prospective teachers to develop theories and practical strategies for teaching. Korthagen and Wubbels (2001) argue:

... many studies in teacher education show that student teachers do not use much of the theory taught in teacher education. Moreover, beginning teachers often complain about the fact that, once in school, they meet many problematic situations for which they were not sufficiently prepared. (p. 32)

Integrating Technology-Based Teaching and Learning Strategies in Teacher Education Programmes

The 21st century demands high standards of knowledge and competence from graduates of universities given the higher quality resource access they are assumed to have. Countries that excel at preparing their young people for the opportunities of the 21st century thrive. Citizens of countries that succeed in harnessing ICT opportunities to nurture, promote and utilize talent will blossom.

Institutions are challenge to [re]-invent and innovatively integrating technology into teaching and learning in teacher education programmes to be front runners in this globalized world. The increase of student population, refer to as the *digital native* forces teacher education faculties to refocus traing programmes to accommodate students. The integration of technology should serve to guide, expand and enhance learning objectives in specific programmes. It is understood that teachers and students do need to spend time learning the basics of using a computer. This is necessary in order to move to effectively integrating technology. Curriculum integration with the use of technology involves the infusion of technology as a tool to enhance the learning in a content area or multidisciplinary setting Technology enables students to learn in ways not previously possible. In this case, colleges who want to be relevant of providing excellent course must implement technology-based teaching and learning strategies in teacher education programmes to accommodate diverse learners.

My view is that effective integration of technology is achieved when teachers and students are able to select technology tools to help them obtain information in a timely manner, analyze and synthesize the information, and present it professionally. The technology should become an integral part of how the classroom functions as accessible as to all other classroom tools. It is obvious that if you expect teachers to integrate technology into the curriculum there needs to be a degree of familiarity with the computer. The question is how familiar? How much does a teacher need to know about computers to effectively integrate them into the curriculum? Teachers don't need to know how a computer works but rather how to use and apply a computer in the classroom.

In any teacher training programmes, integrating Information and Communications Technologies (ICT) can be a "*diverse set of technological tools and resources used to communicate, and to create, spread, store, and manage information*" (Honey, Culp and Carrigg, 2000). These technologies include computers, the Internet, broadcasting technologies and telephony that have been boosted as potentially powerful enabling tools

for educational change and improvement. Teachers should strive for two goals when integrating technology. The first goal is to become a computer-using teacher. It may be the producing materials to use in the classroom such as handouts, banners or newsletters. It may be using the computer to manage your students' marks or using a software program to strengthen a particular skill (van Wyk, 2013). The second goal is to make the computer a teaching partner rather than an object of study. Geisert and Futrell (1995) content that "the instructional goals of computer-using teachers are in art, science, math, language arts, social studies, or other disciplines, not in computers." (p.5). The old cliché "*knowledge is power*", therefore teachers and students need to be empowered with specific competencies to use ICT as an effective instrument to achieve specific outcomes for the purpose for employing it in the classroom.

Currently, the ongoing and unprecedented development of ICT has led to a widespread intention of using ICT to advance educational goals (Cheng and Townsend 2000). This is in part driven by the belief that ICT can play an important role in reshaping education to respond to contemporary information needs. Recent developments across the world have moved much beyond the vision of using ICT as a teaching and learning aid, but towards reshaping the delivery of instruction and bringing about changes in education – transforming education in the globalised society to education in the information society (Law, Yuen, Ki, Li and Lee, 1999). Fewer studies exist on the beliefs and attitudes that student teachers hold in relation to their use of ICT in their teaching practice. Students have been reported to attribute their progress in using ICT for teaching mainly to their use of computers for personal purposes at home, at work, and in university (Cuckle *et al*, 2000; Trushell *et al*, 1995).

Conclusion

The challenges facing the 21st education system locally as well globally and in particular teacher education programmes. Education is pivotal to the socio-economic development of any society because education is not a preparation for life; education is life itself. [Re]defining an 'institution of teacher education' for reaccreditation, the challenges and changes facing higher education globally. Furthermore, several concerns in relation to the prevalent negative views of the teaching profession are expressed. Research has shown by integrating technology-based teaching and learning approaches into teacher education programmes further teacher capacity. The ICT approach is crucial to accommodate the digital natives and digital immigrants into the main stream of education. Currently, teacher education programmes must be [re]define and re-imagine teaching as a profession. To be relevant, Bombay Teacher Training College (BTTC) need to be strategic in building a continental and global mindset. To be relevant, BTTC must show visionary leadership by inspiring a shared sense of purpose and create a culture of servant leadership. BTTC arises from the ashes like the Phoenix by building dynamic organizational structures and architecture in the last decade of teacher training which deliver on key performance targets. Globally, teacher education programmes are to be committed to "regenerative thinking, open to multiple possibilities" and set a transformative learning path to be relevant in the 21st century and beyond.

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Teacher educators on taxonomy of educational skills

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Abstract: The paper presents the need for introducing and implementing a Taxonomy of Educational Skills in Teacher Education. The Taxonomy contains 12 Domains, namely, Self Development Skills, Social Skills, Life Skills, Critical Thinking and Training Thinking Skills, Research Skills, Constructivist and Connectionist Skills, Systems Thinking Skills, Information Age Skills, Leadership, Administration and Management Skills, Spiritual Development Skills, Yoga Skills and Wholistic Development Skills. These domains have been further differentiated into 30 skills. An attempt has been made to study the status of 31 Teacher Educators on these skills. Finally, the paper presents a Course Outline on Taxonomy of Educational Skills for Teacher Education.

Keywords: Taxonomy, educational skills, teacher educators

Introduction

The ultimate aim of education is to develop a universal being. Skills, both hard and soft, need to be developed in all the domains to live full, meaningful, productive, peaceful and universal life. Hard skills are the core skills which are required for innovation, creation, construction, and production in various disciplines, such as, Physics, Chemistry, Mathematics, Biology, Engineering and Technology, Arts, Commerce. The various phases are sensitivity, germination, incubation, innovation, creation, construction, development, implementation and connection, whether it is designing, production and flying of an aero-plane or sensing, creating, composing and reciting a poem, or formulating, producing, analyzing and injecting a drug, or designing, development, organization and administration of an institution. Soft skills are needed for everyday transaction. These are required for how people relate to each other: communicating, engaging in dialogue, giving feedback, cooperating as a team member, contributing in meetings and resolving conflicts, setting an example, team-building, facilitating meetings, encouraging innovations, solving problems, making decisions, planning, delegating, observing, instructing, coaching, encouraging and motivating. Hard Skills emerge from our left brain—the logical center, whereas, soft skills from the right brain—the emotional center. Hard skills are skills where the rules stay the same regardless of whom we work with. In contrast, soft skills are self management skills, wherein we need to moderate our temperament with respect to the temper of the ambience. We need to learn to change and regulate the soft skills. Programming is a hard skill. The rules for how we can be excellent at creating the best source code to do a function is the same regardless of where we work. Communication skills are a set of soft skills. The rules for how to be effective at communication change and depend on the context, and audience

we are communicating. Hard skills can be learned in school. There are usually designated level of competency and a defined path as to how to excel with each hard skill. All soft skills cannot be taught in the schools and have to be learned in life through trial and error. Careers can be classified into three categories, careers that need mostly hard skills and a little soft, both hard and soft skills, mostly soft skills and a little hard.

But, Hard Skills and Soft Skills combination is rarely found. There is less research, but, more publication, less creation but more communication, less production, but, more marketing and vice versa. Masses are lost in customary designs. Hard Skills which emerge through sound theoretical base or lead to theory, with practice, patience and perseverance having precision and perfection passionately emerge. Soft skills demand environmental sensitivity and action. Communication, transaction and transmission through the soft skills infuse life into this sphere.

Here, the intent is to arrive at a combination of hard skills and soft skills. Hard and soft skills are often referred to when entering into and living a profession. While hard skills are essential to enter, it is the soft skills that facilitate professional ethics and aesthetics. To be a good personality fit for any profession we need to be quality producers, humanistic communicators, and civilized and scientific consumers. The spread of skills is like incomplete infinite. We need to develop skills every moment.

The establishment has outgrown in most of the fields in India, such as, Teacher Education, Engineering, Medicine, and even Agriculture. The main cause and effect are the improper planning and unemployable product. The human development should ensure self-employability in respective fields.

Science without experimentation skills, Art without creativity, Commerce without substance, Mathematics without speculation, Logic without reasoning, Schools without life skills, Polity without Statesmanship, and Nature without Beauty are empty. There is a need to realize skills in all the areas. But, the question is have Life Skills, Thinking Skills, Human Development Skills, Management Skills, Emotional Skills, Adaptability and Social Responsibility Skills, Vocational Skills, Professional Skills, and many more skills have achieved the status of Skills? We need to realize skills and their field compatible taxonomy.

Goel (1989) designed, developed and implemented two degree Programs Bachelor of Computer Education (B.C.Ed.) and Master of Computer Education (M.C.Ed.) at School of Education, Devi Ahilya Vishwavidyalaya, Indore, Madhya Pradesh, India. The pass out of these Programs are domain leaders, particularly, ICT in Education, globe over.

Helaiya (2011) conducted a doctoral study on enhancement of life skills through development and implementation of a Life Skills Program for Secondary Student-Teachers. The Ten Life Skills identified by the WHO were considered for the study. An exhaustive attempt was made to differentiate all these Life Skills into various components. Number of Activities were designed, developed and implemented to

enhance the Life Skills. The Life Skills Program was implemented on the Pre-Service Teachers during 2008-2009 at the Maharaja Sayajirao University of Baroda, Vadodara, Gujarat, India. Post-intervention scenario on the Life Skills of the Student-Teachers revealed that there was a remarkable gain in their Self Awareness Skill, Effective Communication Skill, Inter-personal Relationship Skill, Coping with Emotions Skill, Decision Making Skill and Problem Solving Skill. There was moderate gain in their coping with stress skill, Empathy Skill, Critical Thinking Skill and Creative Thinking Skill. The most impeding factor in life is that most of us lack Self Awareness Skill, that is, neither we know our strengths, nor do we know our weaknesses. We do not know our goals. As a result we are poor in many other life skills. If we fail to identify with the self, then we fail to identify with others also, that is, we lack empathy skill. Creative Thinking Skill and Critical Thinking Skill, both in one, is a rare combination. We need to learn how to zoom out and zoom in. The complexities of life are increasing day by day. We need to learn how to cope up with the stress and emotions. We need to learn how to be our own selves and equally how to be one with the others. We need to realize healthy constellation through empathy, interpersonal relations and effective communication. We need to make right decisions, timely. Teachers need to possess healthy life skills for development of healthy society. So the Life Skills should be integrated in Teacher Education.

Dutta (2011) designed, developed and implemented a Program to enhance the emotional skills of Secondary Level Student Teachers. Student Teachers of varied personality attributes were significantly benefitted through the intervention Program. The study has very well demonstrated that how the natural, spontaneous, powerful emotional outbursts can be peacefully regulated, within reasonable time, through scientifically designed skills.

Dhodi (2012) conducted a doctoral study on Development of Info-Savvy Skills in Student Teachers. The study demonstrates very well how the info-savvy skills of Asking, Accessing, Analyzing, Applying and Assessing were developed in the Pre-Service Teachers of India through surfing on Cultural Heritage of India, Buddhist Heritage of India and on their domains of disciplines. It is a joyful experience to travel through this research volume experiencing various surfing skills, viz., skimming, scanning, authenticating, hyper-linking, switching, skipping culminating into Educational Immersion for seeking solutions.

Gupta (2013) conducted a study on role of ICT for Wholistic Development of the Student Teachers. It is evident from the study that ICT does play its role in wholistic development of Student Teachers. We need to extend the role of ICT for development of all the domains wholistically.

It is evident that the complexity of the prevailing conditions demands skills for healthy, peaceful, harmonious, full and meaningful living under highly complex socio-cultural-political-economic-demographic conditions. So, there is a need to integrate skills in Education. There are numerous skills which various tasks demand. There is a need to arrive at skill level in all the areas to cope up with the challenges. Education ought to be

rational as well as scientific. There is a need to realize skill inclusive, skill integrated, and skill evolving School Education and Teacher Education at all levels, right from pre-primary through elementary, secondary, higher secondary, tertiary and lifelong education.

Taxonomy of Educational Skills

Taxonomy of Educational Skills (Goel and Goel, 2014) has been presented under the following 12 Domains:

1. Self Development Skills
2. Social Skills
3. Life Skills
4. Critical Thinking and Training Thinking Skills
5. Research Skills
6. Constructivist and Connectionist Skills
7. Systems Thinking Skills
8. Information Age Skills
Info-savvy Skills, Techno-pedagogic Skills, Digital Age Skills, Open Education Resourcing Skills
9. Leadership, Administration and Management Skills
Creative Leadership Skills, Administration Skills, Time management Skills, Key Skills for Every Manager
10. Spiritual Development Skills
11. Yoga Skills
12. Wholistic Development Skills

1. Self Development Skills

Category-I: Self Development Skills

- a) Monitoring one's own learning needs
- b) Locating appropriate resources
- c) Transferring learning from one domain to another

2. Social Skills

Category-II: Interpersonal and Collaborative Skills

- a) Demonstrating Networking and Leadership
- b) Adapting to Varied Roles and Responsibilities
- c) Working Productively with others
- d) Exercising Empathy
- e) Respecting Diverse Perspectives

Category-III: Communication Skills

- a) Sender Analysis
- b) Message Analysis
- c) Receiver Analysis
- d) Medium Analysis
- e) Communication Analysis

Category-IV: Social Responsibility

- a) Acting Responsibly
- b) Demonstrating Ethical Behaviour in
 - i) Personal life
 - ii) Workplace
 - iii) Community

Category-V: Human Relation Skills

- a) Decency
- b) Decorum
- c) Discipline
- d) Empathy
- e) Sharing
- f) Fellow-Feeling
- g) Politeness
- h) Peace and Harmony
- i) Healthy Competition

Category-VI: Emotional Skills

- a) Self Awareness
- b) Self Management
- c) Social Sensitivity
- d) Social Management

Category-VII: Adjustment Skills

- a) Skill of Home Adjustment
- b) Skill of School Adjustment
- c) Skill of Social Adjustment
- d) Skill of Emotional Adjustment
- e) Skill of Health Adjustment
- f) Skill of Symbiosis

Category-VIII: Human Development Climate

- a) Trust
- b) Risk Taking
- c) Openness
- d) Reward
- e) Responsibility
- f) Support
- g) Feedback
- h) Team Spirit
- i) Collaboration

Category-IX: Citizenship Skills

- a) Sovereign
- b) Social Sensitivity
- c) Learning about Community
- d) Secularity
- e) Democratic
- f) Public and Republic

Teacher educators on taxonomy of educational skills

- g) Leadership
- h) Management
- i) Cooperation and Collaboration
- j) Participation Skill

Category-X: Accountability and Adaptability

- a) Exercising personal responsibility in personal, workplace and community contexts;
- b) Setting and meeting high standards.

3. Life Skills

Category-XI: Life Skills

- a) Self Awareness
- b) Empathy
- c) Interpersonal Relationship
- d) Effective Communication
- e) Critical Thinking
- f) Creative Thinking
- g) Decision Making
- h) Problem Solving
- i) Coping up with emotions
- j) Coping up with Stress

4. Critical Thinking and Training Thinking

Category- XII: Critical Thinking Skill

- a) Analyzing
- b) Reflecting
- c) Querying Evidence
- d) Conjecturing Alternatives
- e) Drawing Conclusion
- f) Stating Results
- g) Justifying Procedures
- h) Presenting Arguments
- i) Self Regulation

Category XIII: Training Thinking

- a) Depressive to Booming
- b) Non-Pathological to Pathological
- c) Invalid to Valid
- d) Polar to Null
- e) Ego-centric to Socio-centric
- f) Obsessive to Final
- g) Partistic to Wholistic
- h) Non-sensible to Sensible
- i) Traditional to Modern
- j) Pessimistic to Optimistic
- k) Crooked to Straight
- l) Rigid to Flexible
- m) Unsocial to Social
- n) Dependent to Autonomous
- o) Narrow to Broad

- p) Practical and Theoretical
- q) Non-Technical to Technical
- r) Non-Logical to Logical
- s) Non-Imaginative to Imaginative

5. Research Skills

Category-XIV: Research Skills

- a) Skill of identifying problem
- b) Skill of formulating Problem
 - Developing Conceptual Framework
 - Skill of Reviewing and implication
 - Skill of Research Questioning
 - Developing Rationale
 - Constructing Statement
 - Enunciating Objectives
 - Formulating Hypotheses
 - Operationlization/Explanation of Terms
 - Deciding Research Type
 - Research Designing
 - Cognizing Population and Sampling Techniques
 - Specifying Delimitation
 - Constructing/Selecting Tools and Techniques
 - Laying down Data Collection Procedure
 - Working out/ Deciding Data Analysis Techniques
 - Interpreting Analyzed data
 - Formulating Findings
 - Discussion Mechanism
 - Converging into Theses
- c) Building Theory

6. Constructivist and Connectionist Skills

Category-XV: Constructivist Skills

- a) Engagement
- b) Germination
- c) Incubation
- d) Innovation
- e) Creation

Category-XVI: Connectionist Skills

- a) Interpretation of units
- b) Activation of the network of units
- c) Learning Algorithm
- d) Recurrent Neural Networking
- e) Evolving continuous, dynamic systems approaches

7. Systems Thinking

Category-XVII: Systems Thinking

- a) Cognizing all the parameters
- b) Establishing interrelation and interdependence

Teacher educators on taxonomy of educational skills

- c) Realizing Integrated Whole
- d) Ensuring Efficiency
- e) Ensuring Cost Effectiveness

8. Information Age Skills

Category-XVIII: Info-Savvy Skills

- a) Asking
- b) Accessing
- c) Analyzing
- d) Applying
- e) Assessing

Category-XIX: Techno-Pedagogic Skills

- a) Media-Message Compatibility
- b) Media Designing
- c) Integration of message, media and modes
- d) Proximity of Message Forms
- e) Media Language Proficiency
- f) Media Choice
- g) Media Credibility and Message Authenticity

Category-XX: Digital Skills

- a) Functional Literacy Skills: Use of images, graphics, videos, charts and visual literacy.
- b) Scientific Literacy Skills: Understanding of both theoretical and applied aspects of science and mathematics.
- c) Technological Literacy Skills: Competence in the use of information and communication technologies.
- d) Information Literacy Skills: Ability to find, evaluate and make appropriate use of information, including via the use of ICTs.
- e) Cultural Literacy Skills: Appreciation of diversity of cultures.
- f) Global Awareness Skills: Understanding of how nations, corporations and communities all over the world are interrelated.

Category-XXI: Open Education Resourcing

- a) Open Education Resources for Learners
 - i) Learning- Content (geogebra, google earth)
 - ii) Creativity (hot potato, C map)
 - iii) Evaluation (R-campus and Mahara)
- b) Open Education Resources for Teachers, Teacher Educators & Facilitating Learning
 - i) Learning Management System (Moodle and Wiki spaces)
 - ii) Teacher Managed Communication Platforms (Classroom 2.0 and Web Quest)
 - iii) Statistical Tools for data processing
 - iv) e-Journals
 - v) e-books
 - vi) e-News Letters
 - vii) Webinars and Web Conferencing
 - viii) WBI

9. Leadership, Administration and Management Skills

Category XXII: Creative Leadership Skills

- a) Socio-centric rather than ego driven
- b) Empowers the people to make decisions rather than take decisions
- c) Listen oriented than tell oriented
- d) Pulls the organization towards a vision
- e) Listens to intuition
- f) Generates lasting commitment
- g) Open minded than opinionated
- h) Teaches importance of self responsibility rather than teaches subordinates to take directions
- i) Models self responsibility rather than in a self protect mode
- j) Knows, relaxing control yields results rather than is afraid of losing control
- k) Focuses on building on strengths rather than finding & fixing problems.
- l) Teaches how to learn from mistakes rather than quick to fire those that fail

Category: XXIII: Administration Skills

- a) Planning
- b) Organizing
- c) Staffing
- d) Coordinating
- e) Budgeting

Category XXIV: Time Management

- a) The ability to Say "No", Learning to Say "No", How to Say "No"
- b) Spacing Things Out; do not procrastinate
- c) Using Social Time Wisely
- d) Prioritizing and Re-prioritizing constantly
- e) Keeping your health/sleep/exercise in check

Category- XXV: Key Skills for Every Manager

- a) Leadership and People Management
 - Attract, retain, motivate, coach and develop team members for high performance.
- b) Communication Skills
 - Communicate, present, assert, speak senior management language
- c) Collaboration Skills
 - Influence, build relationships, manage conflicts
- d) Business Management Skills
 - Understand strategy, business functions, decision-making and workflow
- e) Finance Skills
 - Budget, forecast, manage cash flow, understand financial statements, manage business metrics
- f) Project Management Skills
 - Plan and manage successful projects, manage risks, costs, time and project teams

10. Spiritual Development Skills

Category XXVI: Spiritual Development

- a) Religiosity
- b) Knowledge of Soul

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- c) Quest for life values
- d) Conviction, Commitment and Character
- e) Happiness and Distress
- f) Brotherhood
- g) Equality
- h) Acceptance and Empathy
- i) Love and Compassion
- j) Flexibility
- k) Leadership in Educational Change

11. Yoga Skills

Category XXVII: Yoga Skills

- a) Yama or Eternal Vows: Ahimsa, Satya, Asteya, Aprigraha and Brahmacharya
- b) Niyama or Observances: Saucha, Santosha, Tapas, Savdhya, Ishvarapranidhana
- c) Asana: Firm, Comfortable Meditative Posture
- d) Pranayama: Regulation of the Vital Force
- e) Pratyahara
- f) Dharna
- g) Dhyana
- h) Samadhi

12. Wholistic Development Skills

Category XXVIII: Wholistic Education Skills

- a) Subject Knowledge
- b) Inter-disciplinary
- c) Environmental Attitude
- d) Health Development
- e) Emotional Development
- f) Spiritual Development
- g) Integrated Development

Status of Education Faculty

Rationale of the study

Educational Skills emerge scientifically through problem specific theorization, instantaneously. Now the question is have various skills been integrated in Teacher Education scientifically and comprehensively. 21st century conditions demand skills for healthy, peaceful, harmonious, meaningful and full living under highly complex socio-cultural-political-economic-demographic and environmental conditions. Skill is the Science applied artistically or art applied scientifically, precisely, easily, joyfully, cost effectively. It demands perfect, instantaneous coordination of mind and motor muscles patiently and passionately. Education ought to be science based, skill based and technology integrated. The present paper attempts to explore the status of Education Faculty on various skills.

Objectives of the study

1. To study the relative status of Education Faculty on various skills, faculty-wise.
2. To study the comprehensive profile of Education Faculty on various skills.

Methods

Sample

The sample for the study is constituted of 31 Teacher Educators and Prospective Teacher Educators available at the School of Education DAVV, Indore on the date of data collection.

Tools and techniques employed

A Skill Status Inventory was constructed by the investigators on 30 Skills, having various items against 5 point scale- Very Often, Often, Sometimes, Rarely, Never, as follows (Table 1):

Table 1: Skill status inventory

Sl.No.	Skill	Number of Items
1.	Self Development Skill	3
2.	Interpersonal & Collaborative Skill	5
3.	Communication Skill	5
4.	Resilience Skill	5
5.	Social Responsibility	4
6.	Human Relation Skill	9
7.	Emotional Skill	4
8.	Adjustment Skill	6
9.	Human Development Climate Skill	9
10.	Citizenship Skill	10
11.	Accountability & Adaptability	4
12.	Life Skills	10
13.	Critical Thinking Skill	9
14.	Training Thinking Skill	19
15.	Research Skill	12
16.	Constructivist Skill	5
17.	Connectionist Skill	5
18.	Systems Thinking Skill	5
19.	Info-Savvy Skill	5
20.	Techno-Pedagogic Skill	7
21.	Digital Skill	6
22.	Open Education Resourcing for Learners	3
23.	Open Education Resourcing for Teachers & Teacher Educators	8
24.	Creative Leadership Skill	12
25.	Administration Skill	5
26.	Time Management Skill	7
27.	Management Skill	6
28.	Spiritual Development Skill	11
29.	Yoga Skill	8
30.	Wholistic Development Skill	7

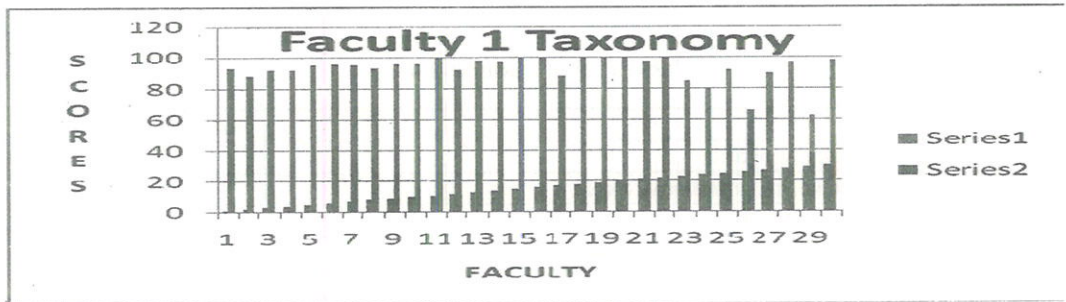
Data collection

The Skill Status Inventory was administered on the available 31 Faculty Members. They registered their responses against the 5-point scale.

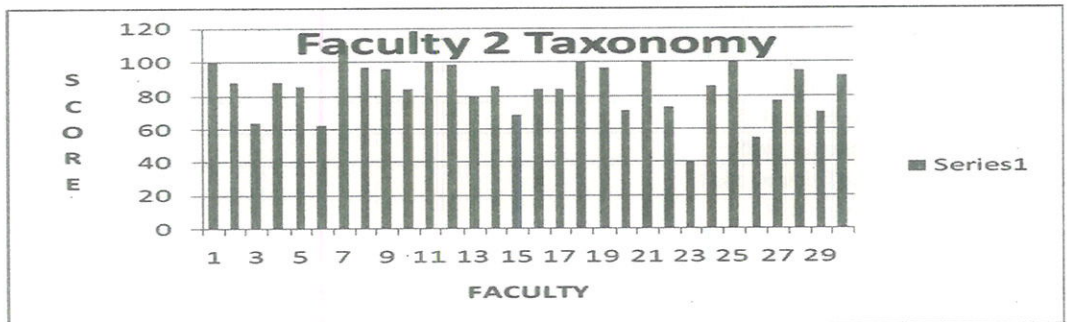
Results

The data were analyzed in terms of frequencies and % responses. Objective-wise data analysis is presented as follows:

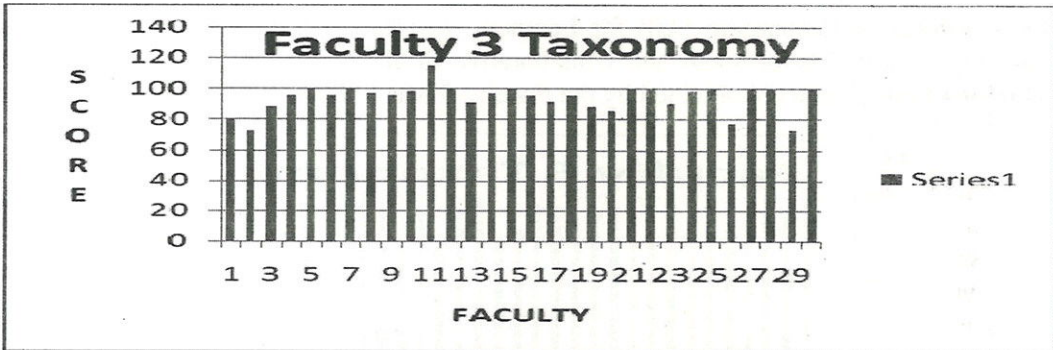
A. Status of Education Faculty on various Skills, Faculty-wise



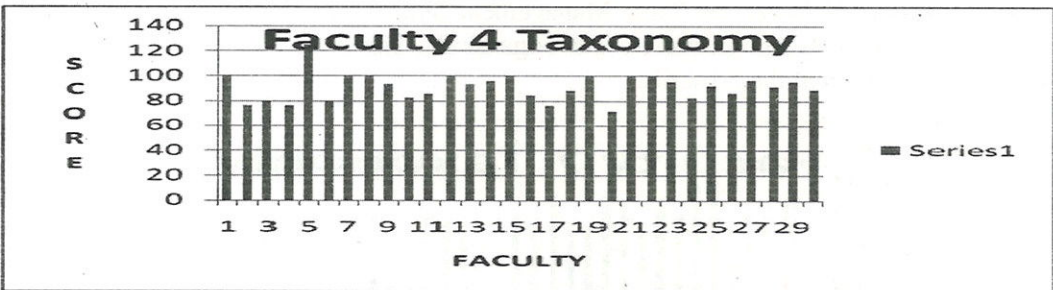
It is evident that Faculty-1 was found to be higher on the skills Accountability and Adaptability, Research Skills, Constructivist Skills, Systems Thinking Skills, Info-Savvy Skills, and Techno-Pedagogic Skills, whereas, relatively lower on Yoga Skills and Time Management. The score obtained by the Faculty-1 was $\geq 80\%$ on 28 of the 30 skills.



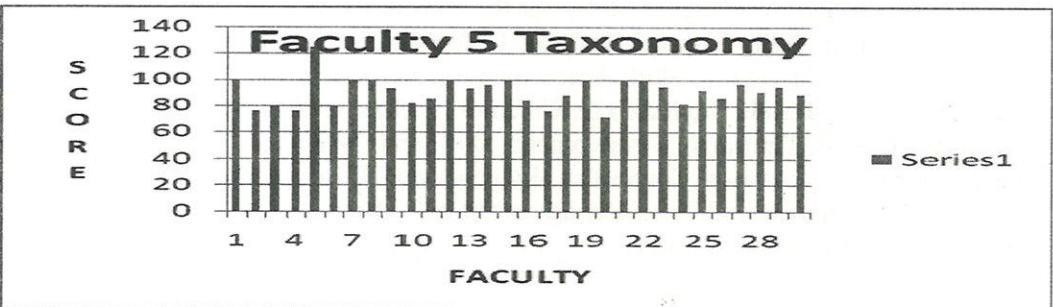
Faculty-2 was found to be higher on Emotional Skill, Self Development Skill, Accountability and Adaptability, Systems Thinking Skill, Digital Skill and Administration Skill, whereas, relatively lower Open Education Resourcing for Teachers and Teacher Educators, Time Management Skill, Human Relation Skill and Communication Skill. The score obtained by the Faculty-2 was $\geq 80\%$ on 20 of the 30 skills.



Faculty-3 was found to be higher on Accountability and adaptability, Social Responsibility, Emotional Skill, Life Skill, Research Skill, Digital Skill, Open Education Resourcing for Learners, Administration Skill, Management Skill and Spiritual Development Skill, whereas, relatively lower on Interpersonal and Collaborative Skill, Yoga Skill and Time Management. The score obtained by the Faculty-3 was $\geq 80\%$ on 27 of the 30 skills.



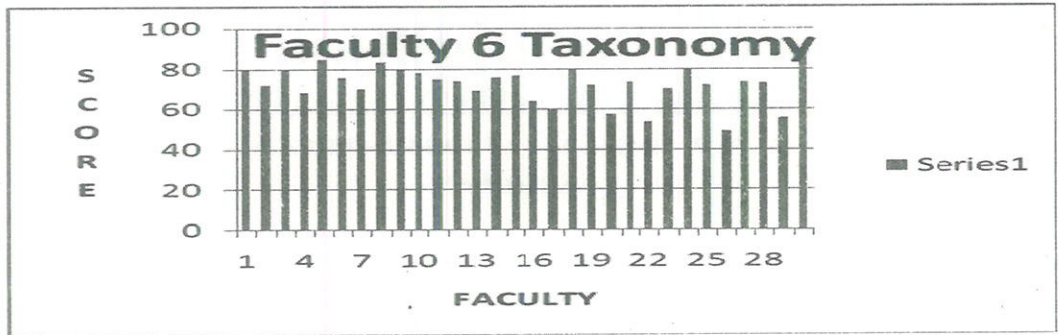
Faculty-4 was found to be higher on Social Responsibility Skill, Self Development Skill, Emotional Skill, Adjustment Skill, Life Skill, Research Skill, Info-Savvy Skill, Digital Skill and Open Education Resourcing for Learners, whereas, relatively lower on Techno-Pedagogic Skill, Interpersonal and Collaborative Skill & Resilience Skill. The score obtained by the Faculty-4 was $\geq 80\%$ on 26 of the 30 skills.



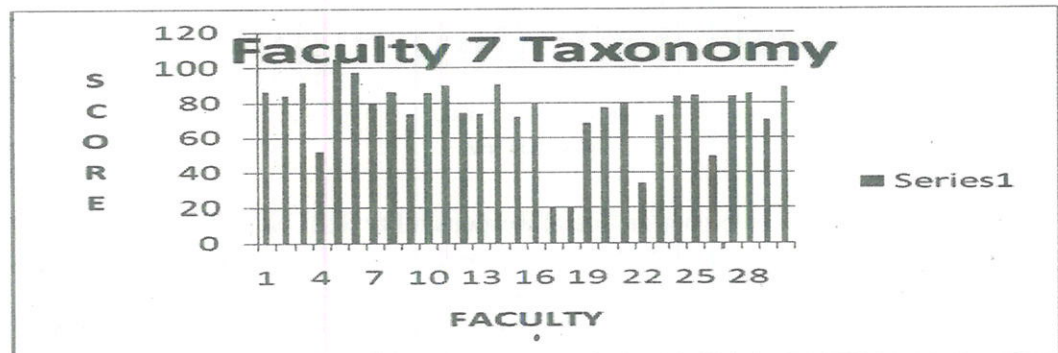
Faculty-5 was higher on Social Responsibility Skill, Self Development Skill, Emotional Skill, Adjustment Skill, Life Skill, Research Skill, Info-Savvy Skill, Digital Skill and

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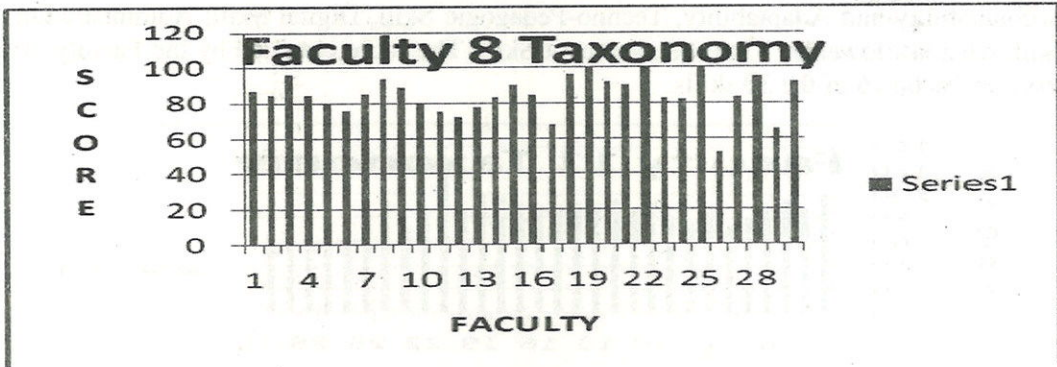
Open Education Resourcing Skill for Learners, whereas, relatively lower on Techno-Pedagogic Skill, Interpersonal and Collaborative Skill, Resilience Skill, and Training Thinking Skill. The score obtained by the Faculty-5 was $\geq 80\%$ on 26 of the 30 skills.



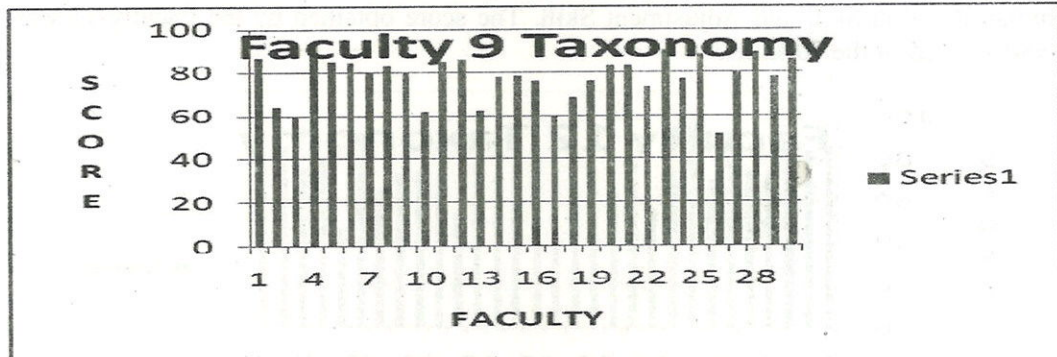
Faculty-6 was found to be higher on Wholistic Development Skill, Social Responsibility Skill, Adjustment Skill, Self Development Skill, Communication Skill, Human Development Climate Skill, Systems Thinking Skill, and Creative Leadership Skill, whereas, relatively lower on Time Management Skill, Open Education Resourcing for Learners, Techno-Pedagogic Skills, and Yoga Skills. The score obtained by the Faculty-6 was $\geq 80\%$ on 8 of the 30 skills.



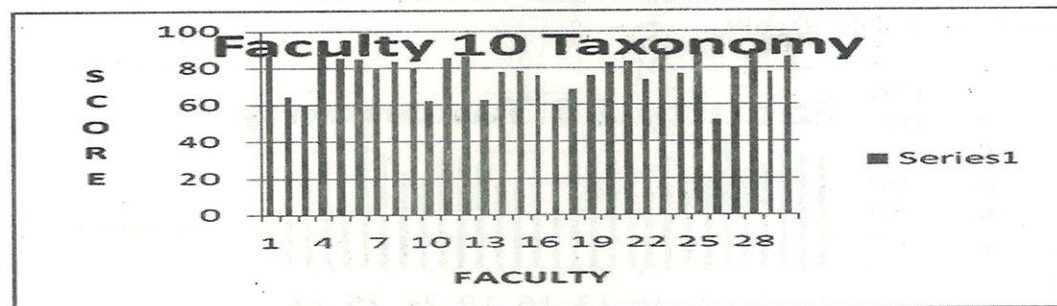
Faculty-7 was found to be higher on Social Responsibility Skill, Human Relation Skill, Self Development Skill, Interpersonal and Collaborative Skill, Communication Skill, Adjustment Skill, Citizenship Skill, Accountability and Adaptability, Training Thinkinfg Skill, Constructivist Skill, Digital Skill, Creative Leadership Skill, Administration Skill, Management Skill, Spiritual Development Skill and Wholistic Development Skill, whereas, relatively lower on Connectist Skill, Systems Thinking Skill, Open Education Resourcing for Learners and Time Management Skill. The score obtained by the Faculty-7 was $\geq 80\%$ on 17 of the 30 skills.



Faculty-8 was found to be higher on Info-Savvy Skill, Open Education Resourcing for Learners, Administration Skill, whereas, relatively lower on Time Management Skill, Human Relation Skill, Yoga Skill, and connectionist Skill. The score obtained by the Faculty-8 was $\geq 80\%$ on 23 of the 30 skills.



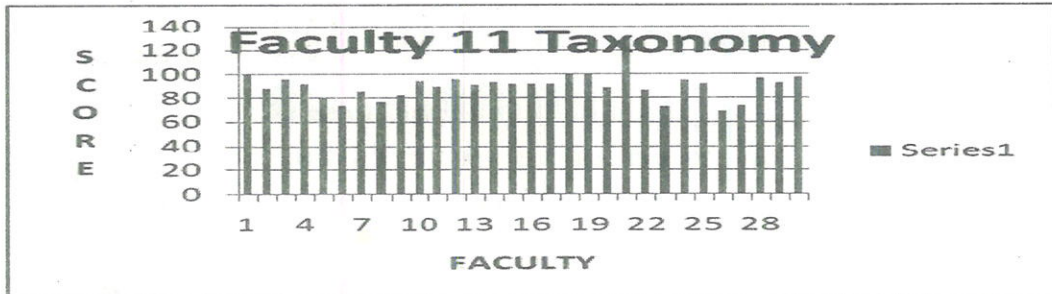
Faculty-9 was found to be higher on Open Education Resourcing for Teachers and Teacher Educators, Administration Skill, Spiritual Development Skill, Wholistic Development Skill, Self Development Skill, Resilience Skill, Social Responsibility, and Human Relation Skill whereas, relatively lower on Time Management Skill. The score obtained by the Faculty-9 was $\geq 80\%$ on 16 of the 30 skills.



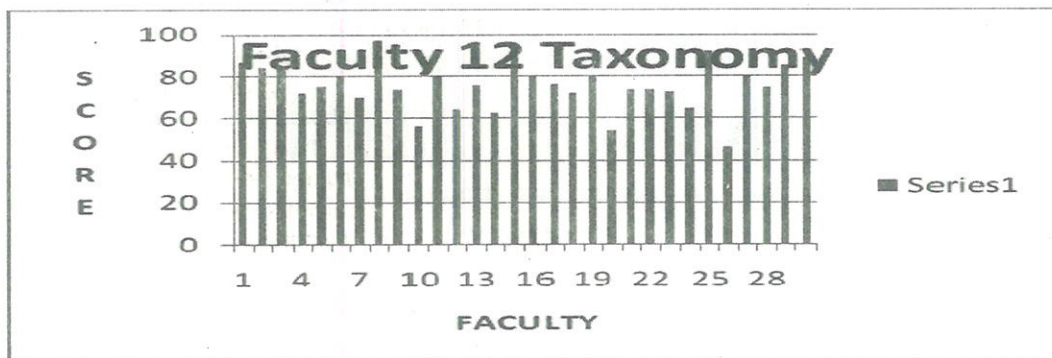
Faculty-10 was found to be higher on Spiritual Development Skill, Self Development Skill, Resilience Skill, Social Responsibility, Human Relation, Emotional Skill,

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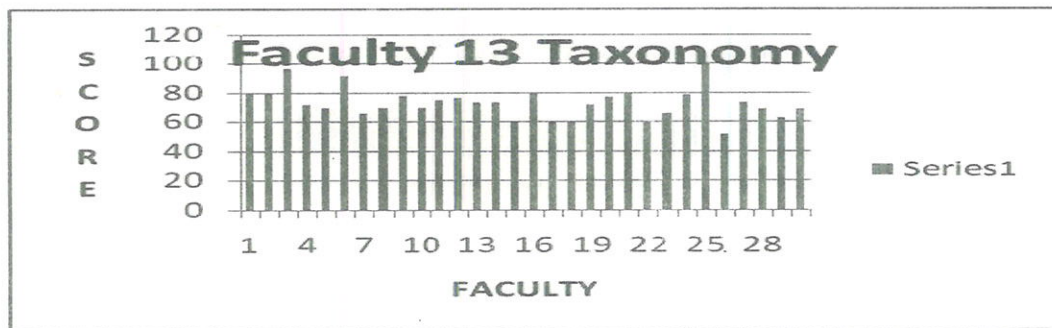
Accountability and Adaptability, Techno-Pedagogic Skill, Digital Skill, Administration Skill, whereas, lower on Time Management Skill. The score obtained by the Faculty-10 was $\geq 80\%$ on 16 of the 30 skills.



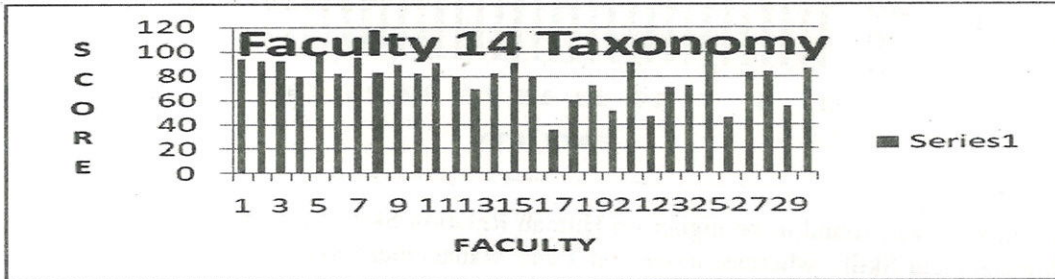
Faculty-11 was found to be higher on Digital Skill, Self Development Skill, Systems Thinking Skill, Info-Savvy Skill, whereas, lower on Time Management Skill, Management Skill, Open Education Resourcing for Teachers and Teacher Educators, Human Relation Skill and Adjustment Skill. The score obtained by the Faculty-11 was $\geq 80\%$ on 25 of the 30 skills.



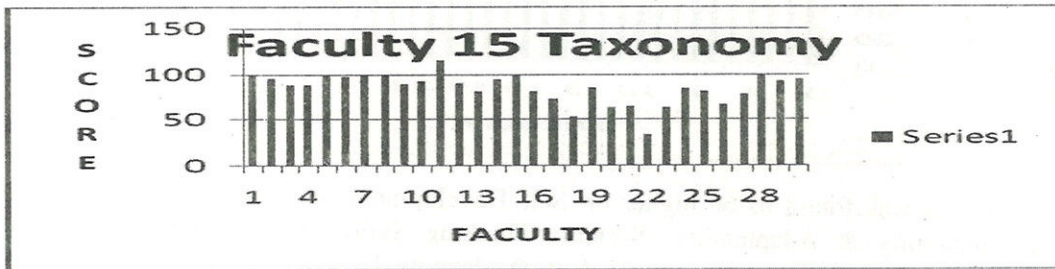
Faculty-12 was found to be higher on Research Skill, Administration Skill, Wholistic Development Skill, Adjustment Skill, whereas, lower on Time Management Skill, Techno-Pedagogic Skill and Citizenship Skill. The score obtained by the Faculty-12 was $\geq 80\%$ on 13 of the 30 skills.



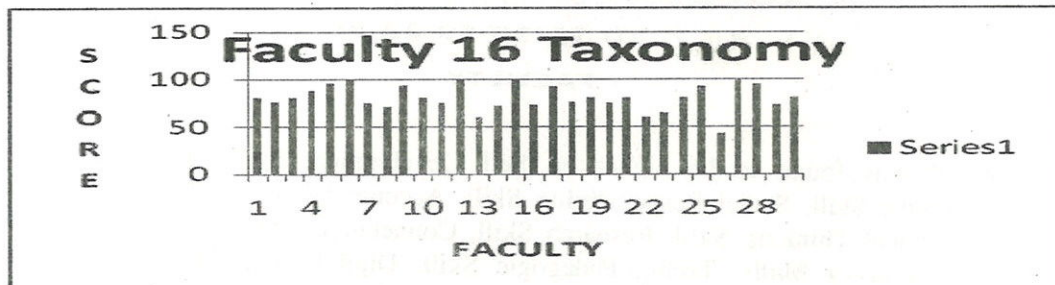
Faculty-13 was found to be higher on Time Management Skill, Communication Skill, Human Relation Skill, whereas, lower on Time Management Skill. The score obtained by the Faculty-13 was $\geq 80\%$ on 8 of the 30 skills.



Faculty-14 was found to be higher on Administration Skill, Social Responsibility Skill, Emotional Skill whereas, lower on Connectionist Skill, Techno-Pedagogic Skill, Time Management Skill, Open Education Resourcing for Learners and Yoga Skill. The score obtained by the Faculty-14 was $\geq 80\%$ on 19 of the 30 skills.

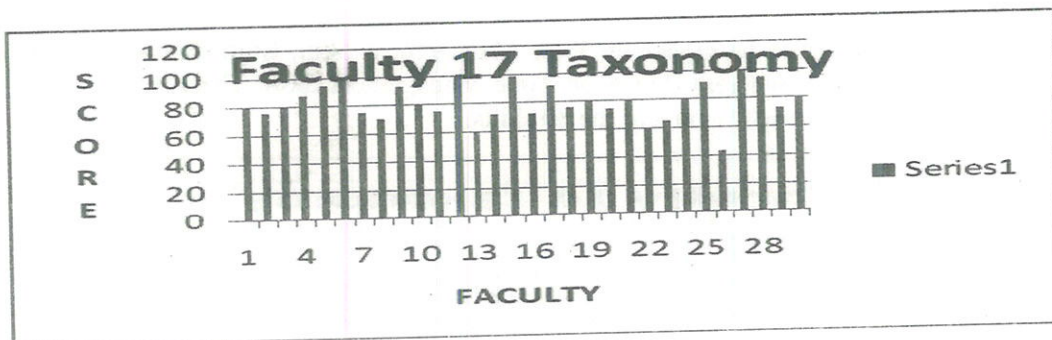


Faculty-15 was found to be higher on Accountability and Adaptability, Self Development Skill, Social Responsibility, Human Relations, Emotional Skill, Adjustment Skill, Research Skill, and Spiritual Development Skill, whereas, lower on Open Education Resourcing for Learners, Systems Thinking Skill, Techno-Pedagogic Skill, Digital Skill, Open Education Resourcing for Teachers and Teacher Educators, Time Management Skill and Management Skill. The score obtained by the Faculty-15 was $\geq 80\%$ on 20 of the 30 skills.

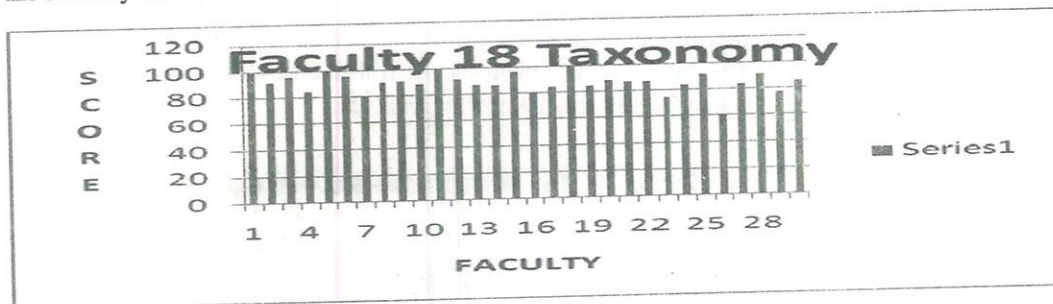


Faculty-16 was found to be higher on Human Relation Skill, Life Skills, Research Skills, Management Skills, whereas, lower on Time Management Skill. The score obtained by the Faculty-16 was $\geq 80\%$ on 10 of the 30 skills.

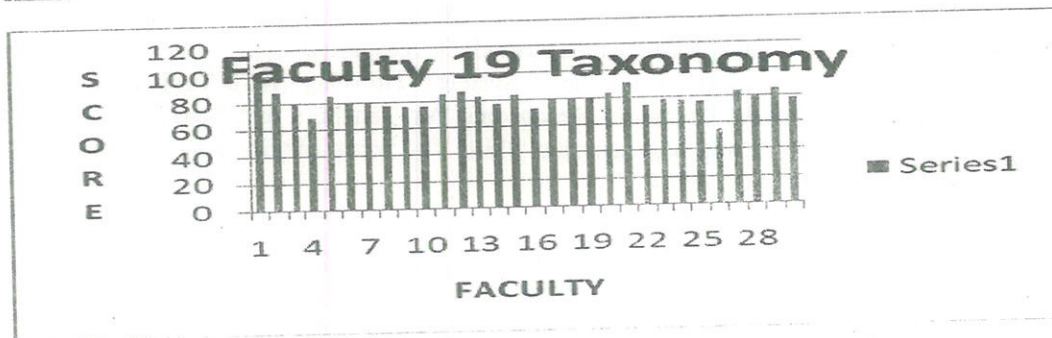
Teacher educators on taxonomy of educational skills



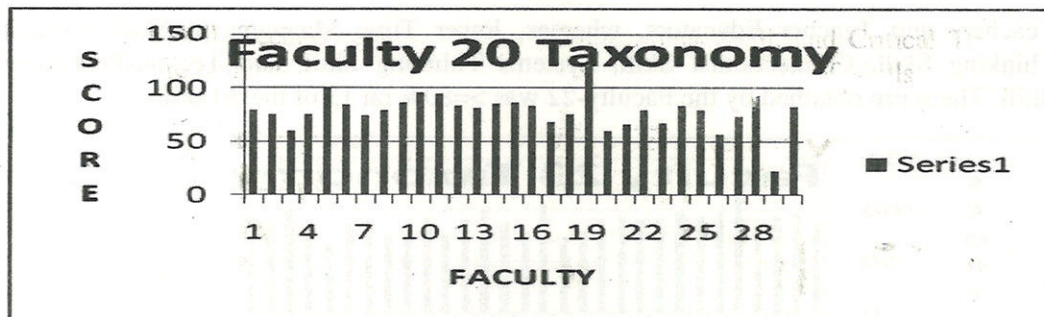
Faculty-17 was found to be higher on Human Relation Skill, Life Skills, Research Skill, Management Skill, whereas, lower on Time Management Skill. The score obtained by the Faculty-17 was $\geq 80\%$ on 17 of the 30 skills.



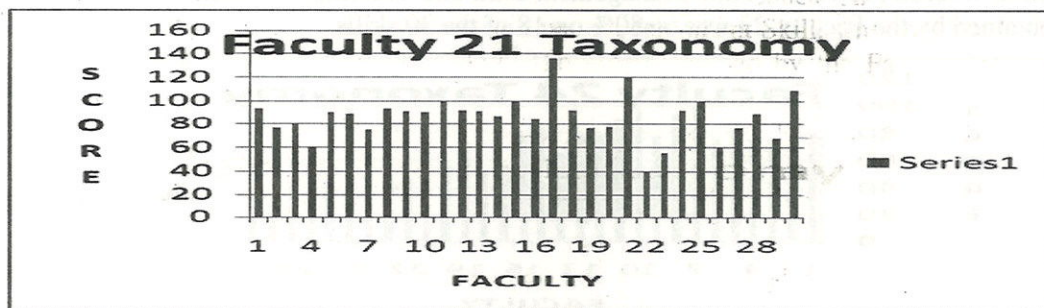
Faculty-18 was found to be higher on Self Development Skill, Social Responsibility, Accountability & Adaptability, Systems Thinking Skill, whereas, lower on Time Management Skill. The score obtained by the Faculty-18 was $\geq 80\%$ on 27 of the 30 skills.



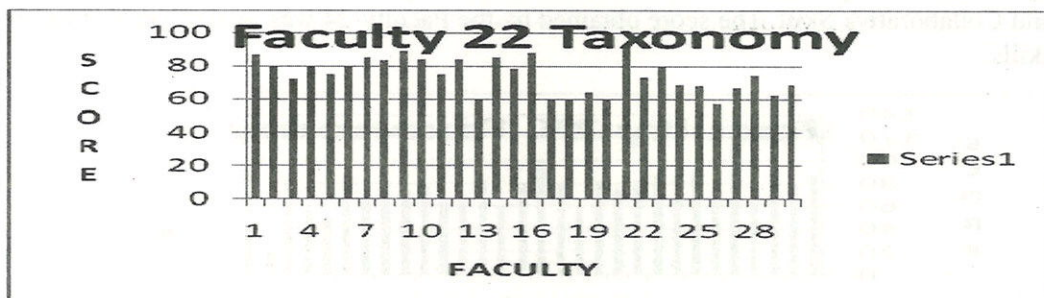
Faculty-19 was found to be higher on Self Development Skill, Interpersonal and Collaborative Skill, Social Responsibility Skill, Accountability and Adaptability, Life Skills, Critical Thinking Skill, Research Skill, Connectionist Skill, Systems Thinking Skill, Info-Savvy Skills, Techno-Pedagogic Skill, Digital Skill, Management Skill, Spiritual Development Skill and Yoga Skill, whereas, lower on Time management Skill and Resilience Skill. The score obtained by the Faculty-19 was $\geq 80\%$ on 18 of the 30 skills.



Faculty-20 was found to be higher on Info-Savvy Skill, Social responsibility, Citizenship Skill, Accountability and Adaptability, and Spiritual Development Skill, whereas, lower on Yoga Skill, Communication Skill, Techno-Pedagogic Skill and Time management Skill. The score obtained by the Faculty-20 was $\geq 80\%$ on 7 of the 30 skills.



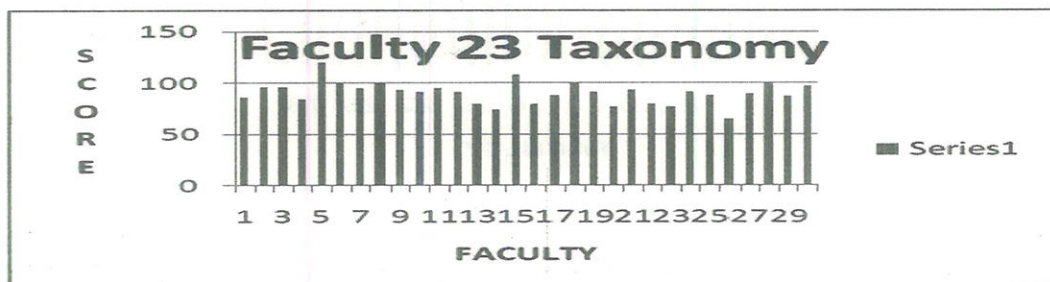
Faculty-21 was found to be higher on Connectionist Skill, Digital Skill, Administration Skill, Creative Leadership Skill, Spiritual Development Skill, Self Development Skill, Social Responsibility Skill, Human Relation Skill, whereas, lower on Open Education Resourcing for Learners, Teachers & Teacher Educators, Time Management Skills and Resilience Skill. The score obtained by the Faculty-21 was $\geq 80\%$ on 20 of the 30 skills.



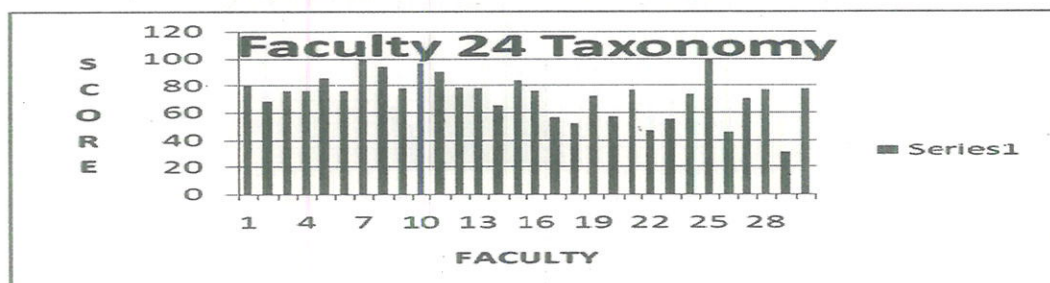
Faculty-22 was found to be higher on Digital Skill, Self Development Skill, Interpersonal and Collaborative Skill, Resilience Skill, Human Relation Skill, Emotional skill, Adjustment Skill, Human Development Climate Skill, Citizenship Skill, Life Skills, Trining Thinking Skill, Constructivist Skill, Open Education Resourcing for

Teacher educators on taxonomy of educational skills

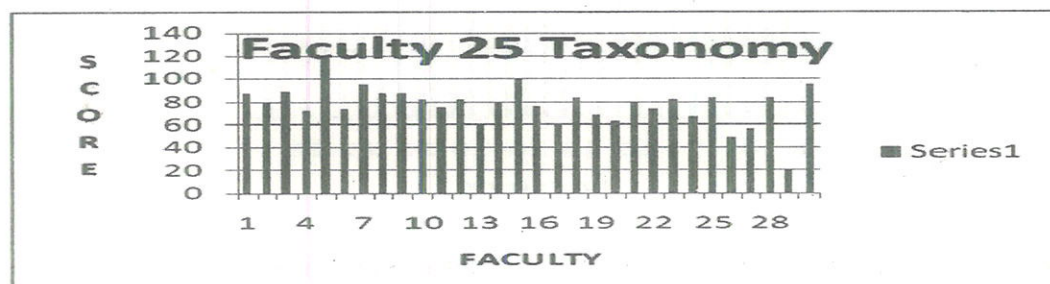
Teachers and Teacher Educators, whereas, lower Time Management Skill, Critical Thinking Skill, Connectionist Skill, Systems Thinking Skill, and Techno-Pedagogic Skill. The score obtained by the Faculty-22 was $\geq 80\%$ on 13 of the 30 skills.



Faculty-23 was found to be higher on Social Responsibility Skill, Human Relation Skill, Adjustment Skill, Research Skill, Systems Thinking Skill and Spiritual Development Skill, whereas, lower on Time Management Skill and Training Thinking Skill. The score obtained by the Faculty-23 was $\geq 80\%$ on 18 of the 30 skills.

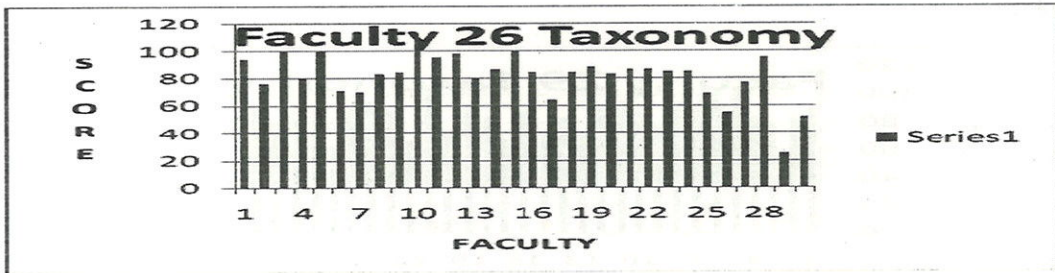


Faculty-24 was found to be higher on Emotional Skill, Administration Skill, Social Development Skill, Social Responsibility, Adjustment Skill, Citizenship Skill, Accountability and Adaptability, Research Skill, whereas, lower on Yoga Skill, Time Management Skill, Open Education Resourcing for Learners, Techno-Pedagogic Skill, Systems Thinking Skill, Connectionist Skill, Training Thinking Skill and Interpersonal and Collaborative Skill. The score obtained by the Faculty-24 was $\geq 80\%$ on 8 of the 30 skills.

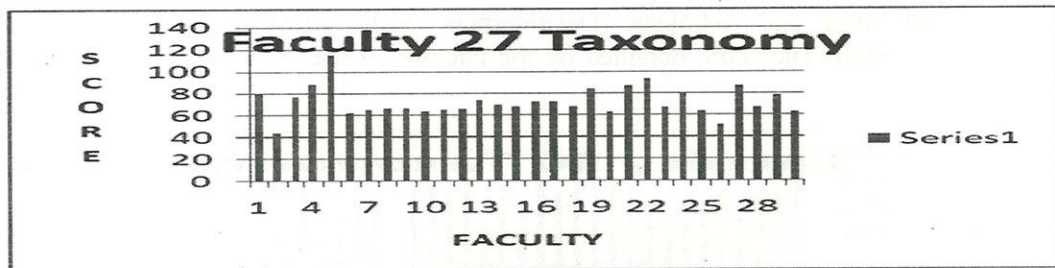


Faculty-25 was found to be higher on Social Responsibility, Research Skill, and Wholistic Development Skill, whereas, lower on Yoga Skill, Management Skill, Time

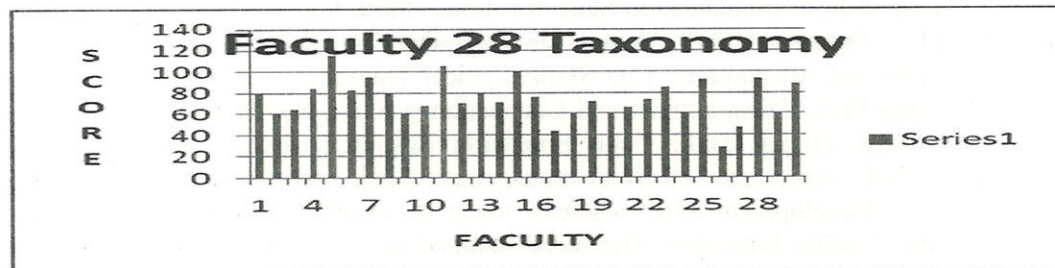
Management skill, Techno-Pedagogic Skill, Connectionist Skill, and Critical Thinking Skill. The score obtained by the Faculty-25 was $\geq 80\%$ on 17 of the 30 skills.



Faculty-26 was found to be higher on Citizenship Skill, Communication Skill, Social responsibility, Accountability and Adaptability, Life Skills, Critical Thinking Skill, Training Thinking Skill, Research Skill, Constructivist Skill, Systems Thinking Skill, Info-Savvy Skill, Techno-Pedagogic Skill, Digital Skill, Open Education Resourcing for Learners, Creative Leadership Skill and Spiritual Development Skill, whereas, lower on Yoga Skill, and Time Management Skill. The score obtained by the Faculty-26 was $\geq 80\%$ on 21 of the 30 skills.



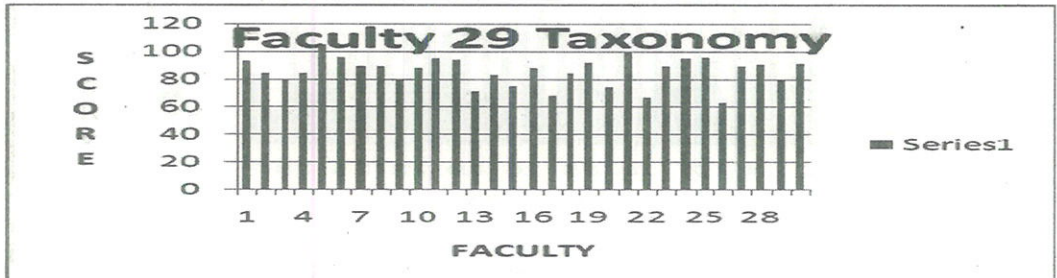
Faculty-27 was found to be higher on Social Responsibility, Resilience Skill, Info-Savvy Skill, Digital Skill, Open Education Resourcing for Learners, Creative Leadership Skill, and Management Skill, whereas, lower on Interpersonal and Collaborative Skill, Time Management Skill and Human Relation Skill. The score obtained by the Faculty-27 was $\geq 80\%$ on 8 of the 30 skills.



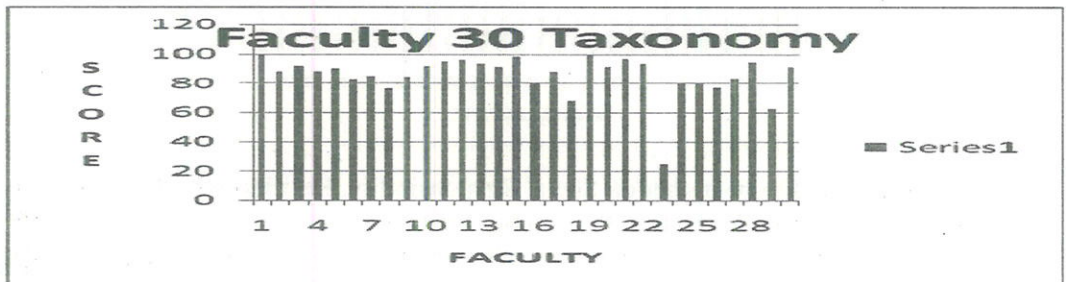
Faculty-28 was found to be higher on Social Responsibility, Accountability and Adaptability, Research Skill, Open Education Resourcing for Teachers and Teacher Educators, Administration Skill, Spiritual Development Skill and Wholistic

Teacher educators on taxonomy of educational skills

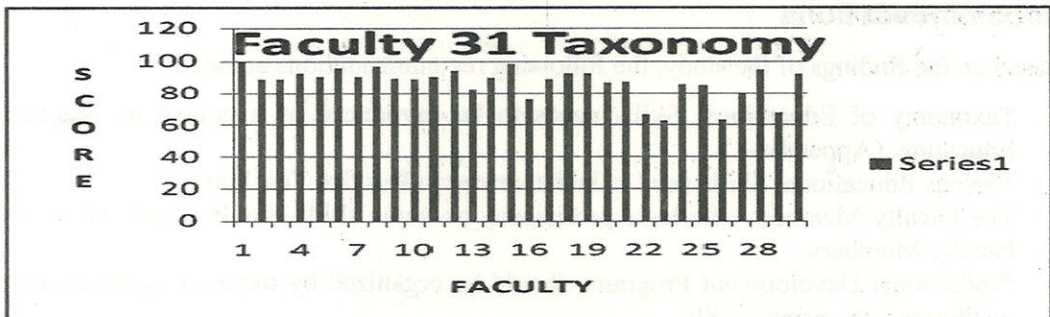
Development Skill, whereas, lower on Time Management Skill, Management Skill, and Connectionist Skill. The score obtained by the Faculty-28 was $\geq 80\%$ on 13 of the 30 skills.



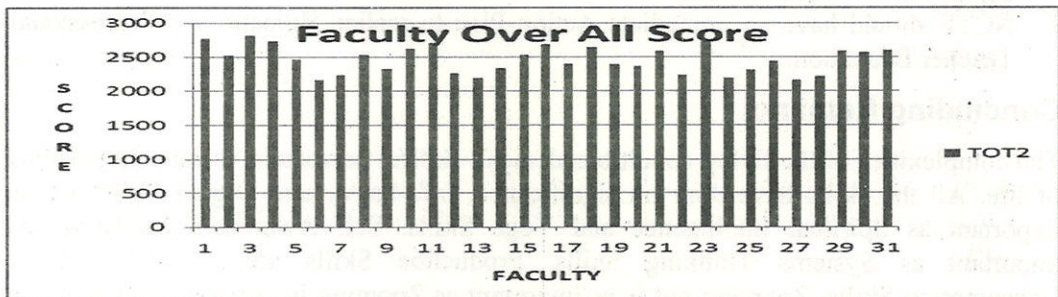
Faculty-29 was found to be higher on Social Responsibility Skill, Self Development Skill, Interpersonal and Collaborative Skill, Resilience Skill, Human Relation Skill, Emotional Skill, Adjustment Skill, Citizenship Skill, Accountability and Adaptability, Life Skills, Training Thinking Skill, Constructivist Skill, Systems Thinking Skill, Info-Savvy Skill, Digital skill, Open Education Resourcing for Teachers and Teacher Educators, Creative Leadership Skill, Administration Skill, Management Skill, Spiritual development Skill and Wholistic Development Skill, whereas, lower on Time Management Skill. The score obtained by the Faculty-29 was $\geq 80\%$ on 24 of the 30 skills.



Faculty-30 was found to be higher on Self Development Skill, Interpersonal and Collaborative Skill, Communication Skill, Resilience Skill, Social Responsibility Human Relation Skill, Emotional Skill, Human Development Climate Skill, Citizenship Skill, Accountability and Adaptability, Life Skills, Critical Thinking Skill, Training Thinking skill, Research Skill, Constructivist and Connectionist Skill, Info-Savvy Skill, Techno-Pedagogic Skill, Digital Skill, Open Education Resourcing for Learners, Creative Leadership Skill, Administration Skill, Management Skill, Spiritual Development Skill and Wholistic Development Skill, whereas, lower on Open Education Resourcing for Teachers and Teacher Educators. The score obtained by the Faculty-30 was $\geq 80\%$ on 25 of the 30 skills.



Faculty-31 was found to be higher on a large number of skills, except Time Management Skill, Yoga Skill, Open Education Resourcing for Learners, Teachers and Teacher Educators. The score obtained by the Faculty-31 was $\geq 80\%$ on 25 of the 30 skills.



Faculty overall skill status revealed that Faculty 3 was highest on skills, whereas, Faculty 6 was lowest on skills. 14 of the 31 Education Faculty had scored $\geq 75\%$, whereas, all the Faculty members had scored $\geq 66\%$. The mean score was 2460.61 out of 3000. The maximum score obtained was 2820.42, whereas, minimum score obtained was 2162.25. No mode is available, meaning thereby, that, no two faculty members were found to be at the same level of overall skills. The Faculty had made very meaningful perceptions on the Educational Skills. There was no mode on the over all status of the skills of the Faculty, that is, no two Faculty Members were found to have same overall skill level. As, a whole the skill scenario of the Faculty had been found to be promising. But, there is always scope for perfection. We should be in a position to employ any skill timely, easily, precisely and joyfully. But, how to realize it?

Emerging theses

- About 25 % (8/31) the Teacher Educators have been found to have $\geq 80\%$ marks on 25 Skills out of 30. 7 out of 31 (about 23%) of the Teacher educators have been found to have $\geq 80\%$ marks on 10 Skills out of 30
- A sizable number of the Teacher Educators (16/31, that is, about 50%) have been found to be low on Time Management Skill, whereas, (6/31, that is, about 20%) of the Teacher Educators have been found to be low on Yoga Skill.
- There has been found an ample scope for enhancement of Educational Skills amongst the Teacher Educators.

Recommendations

Based on the findings of the study, the following recommendations are made.

1. Taxonomy of Educational Skills needs to be introduced as a course in Teacher Education. (Appendix-1)
2. Various Educational Skills need to be integrated in Practice Teaching.
3. The Faculty Members who have proficiency on some skills should orient the other Faculty Members.
4. Professional Development Programs should be organized by the apex agencies and institutions on various skills.
5. There should be networking amongst Teacher Education Institutions for Skill Sharing.
6. Regional and Central Consortiums for Teacher Education should be established for deployment of various skills.
7. NCTE should have an immediate Action Plan to realize Humane and Professional Teacher Education.

Concluding Remarks

The complexities of the living conditions demand skillful persons in various dimensions of life. All the skills have their on significance. Info-Savvy and Digital Skills are as important as Spiritual Intelligence and Yoga Skills. Self Awareness Skills are as important as Systems Thinking Skills. Production Skills are as important as Consumption Skills. Zooming out is as important as Zooming in. Personal Skills are as significant as Citizenship Skills. General as well as Special Skills have their own value. Research is as important as Construction. Downloading is as important as uploading. How can life be a network of arrays of numerous skills, where, ideas spring, feelings flow, motor creates, spirit reins, and the self resonates with the sphere in this digital age? Dancing crops, flowing wisdom, enchanting music, touching songs, resonating dance, immersing verses, speaking sculptures, enlightened learners, innovative researchers, skillful scholars and creative constructors are the wonderful springs of nature.

India ought to have skill, scale and speed to realize sustainable development. We need to be proficient on hard skills and soft skills, Research Skills and Constructivist and Connectionist Skills, Self Direction Skills and Social Development Skills, Digital Age Skills and Spiritual Development Skills, Cognitive Skills and Emotional Development Skills, Micro-Specialist Skills and Wholistic Development Skills, Time-Space-Personnel Management Skills and Spiritual Development Skills, Production Skills and Marketing Skills, Human Development Skills and Universal Becoming Skills, Production and Consumption Skills, Downloading Skills and Uploading Skills, becoming skills and debecoming skills, and above all Skills for living and leading full meaningful, happy and healthy life. There is an immediate need to evolve and integrate Taxonomy of Educational Skills in Teacher Education.

Every organism should be in a position to employ art scientifically and science artistically to realize the beauty of Nature. Essential attributes of Education are ease, precision and perfection in every bit of thinking and action construction and connection.

Life without Skill, Scale and Speed is Lifeless. Education without Skills is Empty. How to realize the substance, the essence of education? Education is to liberate, not to enslave. Education is to realize freedom than to imprison. Education is to unfold than to withhold.

Indian GURUS have their own GRIMA. Their Text has its own Testimony. Their skills have their own ease, precision and perfection. Their lives are unique. Their styles are unique. We feel proud of our Teachers – the VIDYAVID. We need to emulate them in every bit of breath & action. Education needs to interweave the Skills and Styles of Indian GURUS at all levels. We need to realize the Skill, Scale and Speed to survive. The NCTE, NCERT, UGC, AICTE, IITs, IIMs, IIITs and all the educational institutions of India should work toward realizing skill sensitivity.

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Appendix-1: Taxonomy of Educational Skills

Objectives

1. The student teachers will be in a position to identify and classify various Educational Skills.
2. The student teachers will be in a position to employ various Educational Skills, viz., Techno-savvy Skills, Techno-Pedagogic Skills, Research and Construct Skills, Yoga and Spiritual Development Skills and Self Development, Citizenship Skills and Life Skills.

Unit-1: Techno-Savvy Skills

- Info-Savvy Skills- Skills of Asking, Accessing, Analyzing, Applying and Accessing.
- Digital Age Skills-Global Awareness Skills, Cultural Literacy Skills, ICT literacy, Scientific LitLiteracy Skills, Functionaleracy Skills Online Learning to Twitters, Face-book to Semantic Web, Web-1.0 to Web-2.0 to Web-3.0 technology, Smart Classrooms, Wi-Fi, i-Pad, e-book, e-Reader, e-News Letter and Webinars.

Unit-2: Techno-Pedagogic Skills

Media-Message compatibility, Temporal and Spatial Proximity of Message Forms, Media Language Proficiency, Message, Media and Mode integration, Realizing Media Credibility and Message Authenticity, Media Search and Choice.

Unit-3: Research and Construct Skills

Imagination and creativity, logic and reasoning, conceptual and theoretical thinking, reflection and feedback, data collection, experimentation, analysis and dissemination.. The Constructivist skills, such as, Engaging, Exploring, Explaining, Elaborating and Evaluating.

Unit-4: Yoga and Spiritual Development Skills Unit

a. Yoga

- Yama or Eternal Vows: Ahimsa, Satya, Asteya, Aprigraha and Brahmacharya
- Niyama or Observances: Saucha, Santosha, Tapas, Savdhyaya, Ishvara-pranidhana
- Asana: Firm, Comfortable Meditative Posture
- Pranayama: Regulation of the Vital Force
- Pratyahara: Sense withdrawal
- Dharna : Concentration
- Dhyana : Meditation
- Samadhi : Absorption

b. Spiritual Development

- Concept of Soul, Quest for Life and Spiritual Values, such as, Conviction, Commitment and Character, Healthy State in Happiness and Distress, and values such as Brotherhood, Equality, Acceptance, Flexibility, Empathy, Love and Compassion.

Unit-5: Self Development Skills, Citizenship Skills and Life Skills

- Adaptability and Accountability, Responsibility in Personal, Workplace, and Community Context, Management Skills, Social Responsibility Skills, Human Relations Skills, Emotional Skills, Human Development Climate Skills and Wholistic Education Skills.

- Life Skills – Self-Awareness, Empathy, Inter-Personal Communication, Coping-up with Stress, Coping-up with Emotions, Creative Thinking, Critical Thinking, Decision Making and Problem Solving

Mode of Transaction

1. Live demonstration of Info savvy skills.
2. Media based analysis of techno pedagogic skills.
3. Activity based approaches of life skills.
4. Field based and ICT aided development of Research and Construct Skills.
5. Demonstration and practice of Yoga skills.
6. Presentations, activities, community work.

Practical Activities

1. Practice of Yogasanas and Pranayama.
2. Practice of Communication Skills.
3. Feedback Skills Practice.
4. Reflective Practice.
5. Reflective Journalism.
6. Media Analysis.
7. Reflection on Character Building.

Professional commitment of primary school teachers

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Abstract: This study reports with the professional commitment of primary school teachers. The major objective of the study was to find out the significant difference if any in the professional commitment and its dimensions with respect to the background variables. The sample consisted of 500 primary school teachers from four districts of Tamilnadu, viz. Kanyakumari, Tirunelveli, Tuticorin and Madurai. The tool for Professional Commitment was developed and validated by the investigator. The statistical techniques used were mean, standard deviation, t-test and ANOVA. The findings of the study revealed that the primary teachers had moderate level of Professional Commitment. It was found that female teachers were better than male teachers in their commitment to learner and commitment to society, but male teachers were better than female teachers in commitment to profession, commitment to basic human values and commitment to achieve excellence. Teachers working on permanent basis were better than those working on temporary basis in their commitment to learners and commitment to profession. Christian teachers were better than Muslim teachers in their commitment to society, and Hindu teachers were better than Muslim teachers in their commitment to basic human values. Suggestions have been made based on the findings of the study.

Keywords: Professional commitment, primary school teachers, background variables

Introduction

A teacher is the key figure in the building of a nation. The task of a teacher is transaction of knowledge imparting the skill and inculcation of values (Chamundeswari and Vasanthi, 2009). Teachers are recognised as professionals. In the words of Sri. Ramamurthy (1990) "The teacher is a professional, such as a doctor, an engineer or a lawyer. Unless teachers are competent, committed to the delivery of quality service and seek autonomy for decision making in the discharge of their professionals they cannot maintain the dignity of being professionals (Kumar Ajay, 2013). A teacher holds an important, critical and direct role in making the formal education system. Recognising the importance of teacher, NPE (1986) has rightly remarked "No system of education can rise above the level of its teachers (Murali, 2010). Though the teacher occupies important place in the development of the nation, a lot of responsibilities lies with him to execute in his day to day activities. For effective teaching, besides required knowledge and skills, the teacher should have a favourable attitude towards the teaching profession and commitment to the job (Deepthi, 2012).

Teachers need to be strongly committed to the highest development of each individual child and also be sensitive to the social and economic context within which the child must operate. The teacher not only implements educational programmes but acts as an

Professional commitment of primary school teachers

innovator and originator of new educational ideas. He knows the abilities, capabilities, needs, aims, weakness and their level of aspiration of his students and uses various methods to achieve them (Sharma, 2010). This is a noble task which is possible only by total commitment and devotion to the profession on the part of the teacher. For this teacher should have a true love to his profession. If he loves his job, he will love his students and those activities concerned with the students. The investigator feels that primary teacher are laying the foundation for the education of the youth and today many of the teachers do not show their true love to the profession. So the investigator felt the need to investigate the professional commitment of primary school teachers.

Objectives

The investigator had framed the following objectives of the study:

1. To find out the level of professional commitment of primary school teachers
2. To find out the significant difference if any, in the professional commitment of primary school teachers with respect to gender, nature of the post, religion.

Hypotheses

The following research hypotheses were formulated:

1. The level of teaching competency of primary school teachers is moderate.
2. There is no significant difference between male and female primary school teachers in their professional commitment.
3. There is no significant difference between primary school teachers working in permanent and temporary basis in their professional commitment.
4. There is no significant difference among primary school teachers in their professional commitment with respect to religion.

Methods

The survey method was used for the present study. The investigator used the stratified random sampling technique to select a sample of 500 primary teachers from the schools of four districts in Tamilnadu.

Tools used

The investigator developed a tool for professional commitment and validated it by taking expert opinion.

Statistical technique used

Mean, standard deviation, t-test and ANOVA were used to analyse the data collected.

Results

Hypothesis 1

Table 1: *Level of professional commitment of primary school teachers*

Dimensions of Professional Commitment	Level	Frequency	Percentage
Commitment to learner	Low	84	16.8
	Average	350	70.0
	High	66	13.2
Commitment to profession	Low	42	8.4
	Average	358	71.6
	High	100	20.0
Commitment to society	Low	65	13.0
	Average	363	72.6
	High	72	14.4
Commitment to basic human values	Low	85	17.0
	Average	368	73.6
	High	47	9.4
Commitment to Achieve excellence	Low	56	11.2
	Average	369	73.8
	High	75	15.0
Commitment as a whole	Low	65	13.0
	Average	363	72.6
	High	72	14.4

The level of professional commitment of primary school teachers is moderate.

From Table 1, it is inferred that, out of the 500 sample of primary school teachers 16.8 percent had low level, 70.0 percent had average level and 13.2 percent had high level of commitment to learners; 8.4 percent had low level, 71.6 percent had average level and 20.0 percent had high level of commitment to society; 17.0 percent had low level, 73.6 percent had average level and 9.4 percent had high level of commitment to basic human values; 11.2 percent had low level, 73.8 percent had average level and 15.0 percent had high level of commitment to achieve excellence; 13.0 percent had low level, 72.6 percent had average level and 14.4 percent had high level of commitment as a whole among primary school teachers.

Further it is concluded that a good percent of primary school teachers had average level of professional commitment.

Hypothesis 2

There is no significant difference between male and female primary school teachers in their professional commitment.

Table 2: *Difference between male and female primary school teachers*

Dimensions of professional commitment	Gender	N	Mean	Std. Deviation	P-value	t-value	Level of Significance
Commitment to learner	Male	179	23.74	3.21	0.04	2.05	S*
	Female	321	24.43	3.79			
Commitment to profession	Male	179	16.50	2.56	0.00	4.58	S**
	Female	321	15.35	2.76			
Commitment to society	Male	179	24.74	5.72	0.04	2.02	S**
	Female	321	25.63	4.01			
Commitment to basic human values	Male	179	23.13	2.44	0.02	2.25	S**
	Female	321	22.66	2.08			
Commitment to Achieve excellence	Male	179	18.84	2.79	0.02	2.41	S**
	Female	321	18.27	2.38			

S**- Significant at 0.01 level; S*- Significant at 0.05 level

From Table 2, it is known that the calculated P values for the dimension of commitment to profession, is less than 0.01 at 1 percent level of significance, but the p values for the dimension commitment to learner, commitment to society, commitment to basic human values and commitment to achieve excellence are less than 0.05 at 5 percent level of significance, hence the null hypothesis, "there is no significant difference in the professional commitment of primary school teachers with respect to gender" is partially rejected. Hence there is significant difference in professional commitment with respect to gender.

While comparing the mean scores of male ($\bar{X} = 23.74$) and female ($\bar{X} = 24.43$) primary school teachers in their commitment to learners female teachers were better than male teachers.

While comparing the mean scores of male ($\bar{X} = 16.50$) and female ($\bar{X} = 15.35$) primary school teachers in their commitment to profession male teachers were better than female teachers.

While comparing the mean scores of male ($\bar{X} = 24.74$) and female ($\bar{X} = 25.63$) primary school teachers in their commitment to society female teachers were better than male teacher.

While comparing the mean scores of male ($\bar{X} = 23.13$) and female ($\bar{X} = 22.66$) primary school teachers in their commitment to basic human values male teachers were better than female teacher.

While comparing the mean scores of male ($\bar{X} = 18.84$) and female ($\bar{X} = 18.27$) primary school teachers in their commitment to achieve excellence, male teachers were better than female teachers.

Hypothesis 3

There is no significant difference between permanent and temporarily working primary school teachers in their professional commitment.

Table 3: Difference between permanent and temporarily working primary school teachers

Dimensions of commitment professional	Nature of the post	N	Mean	Std. Deviation	P-value	t-value	Level of Significance
Commitment to learner	Permanent	269	23.87	2.85	0.05	1.94	S**
	Temporary	171	23.36	2.93			
Commitment to profession	Permanent	269	16.57	2.37	0.03	2.11	S*
	Temporary	171	16.12	2.40			
Commitment to society	Permanent	269	25.95	4.02	0.39	0.86	NS
	Temporary	171	25.64	3.96			
Commitment to basic human values	Permanent	269	22.92	2.29	1.00	0.32	NS
	Temporary	171	22.72	2.13			
Commitment to achieve excellence	Permanent	269	17.46	3.39	0.28	1.08	NS
	Temporary	171	17.79	3.37			

S**- Significant at 0.01 level; S*- Significant at 0.05 level

From Table 3, it is known that the calculated P values for the dimension of commitment to learner and commitment to profession are less than 0.05 at 5 percent level of significance, hence the null hypothesis, "there is no significant difference in the professional commitment of primary school teachers with respect to nature of post" is partially rejected. Hence there is significant difference in professional commitment with respect to nature of the post.

While comparing the mean scores of teachers working in permanent ($\bar{X} = 23.87$) and temporary ($\bar{X} = 23.36$) basis in their commitment to learner, permanent working teachers were better than temporary working teachers.

Professional commitment of primary school teachers

While comparing the mean scores of teachers working in permanent ($\bar{X} = 16.57$) and temporary ($\bar{X} = 16.12$) basis in their commitment to profession, permanent working teachers were better than temporary working teachers.

Hypothesis 4

There is no significant difference among primary school teachers in their professional commitment with respect to religion.

Table 4: *Sum of scores and mean square variance of professional commitment and its dimensions of primary school teachers with respect to Religion and calculated 'F' values*

Dimensions of professional commitment	Religion	Variance	Sum scores	of Mean square	Df	F	P	Remarks
Commitment to learner	Hindu	Between	36.105	18.05	2	2.16	0.12	NS
	Christian							
	Muslim	Within	4149.917	8.35	497			
Commitment to profession	Hindu	Between	9.271	4.636	2	0.81	0.44	NS
	Christian							
	Muslim	Within	2839.929	5.714	497			
Commitment to society	Hindu	Between	136.945	68.473	2	4.35	0.01	S**
	Christian							
	Muslim	Within	7815.237	15.725	497			
Commitment to basic human values	Hindu	Between	31.719	15.859	2	3.24	0.04	S*
	Christian							
	Muslim	Within	2432.831	4.895	497			
Commitment to Achieve excellence	Hindu	Between	2.427	1.213	2	0.22	0.79	NS
	Christian							
	Muslim	Within	2675.595	5.383	497			

S**- Significant at 0.01 level; S*- Significant at 0.05 level

From the Table 4, it is seen that the calculated P values of dimension commitment to society are less than 0.01 at 1 percent level of significance, and the P values of dimension commitment to basic human values are less than 0.05 at 5 percent level of significance, hence the null hypothesis, "there is no significant difference in the professional commitment of primary school teachers with respect to religion" is partially rejected. Hence there is significant difference in commitment to society and commitment to basic human values of primary school teachers with respect to religion. To find out the significant difference among the group, Post-Hoc Scheffes' test was applied.

Post Hoc Scheffe's Test—Commitment to Society

Table 4.1: Mean, Standard Deviation and Scheffe's *p* of commitment to society of primary school teachers working with respect to religion

Religion	N	Mean	Std. Deviation	Pair	Scheffe's pair	Level of significance
Hindu	117	26.44	3.86	A vs B	0.45	NS
Christian	281	25.88	3.98	B vs C	0.01	S**
Muslim	102	24.87	4.05	A vs C	0.09	NS

From Table 4.1, it is clear that Hindu and Christian, Hindu and Muslim primary school teachers do not differ in their commitment to society, but Christian and Muslim primary school teachers differ in their commitment to society at 0.01 levels.

While comparing the mean scores of Christian ($\bar{X} = 25.88$) and Muslim ($\bar{X} = 24.87$) teachers in their commitment to society, Christian teachers were better than Muslim teachers

Post Hoc Scheffe's Test—Commitment to Basic Human Values

Table 4.2 Mean, Standard Deviation and Scheffe's *p* of commitment to basic human values of primary school teachers working with respect to religion

Religion	N	Mean	Std. Deviation	Pair	Scheffe's Pair	Level of significant
Hindu	117	22.93	2.25	A vs B	0.99	NS
Christian	281	22.97	2.20	B vs C	0.14	NS
Muslim	102	22.33	2.19	A vs C	0.05	S*

From Table 4.2, it is clear that Hindu and Christian, Christian and Muslim primary school teachers do not differ in their commitment to basic human values, but Hindu and Muslim primary school teachers differ in their commitment to basic human values at 0.05 levels.

While comparing the mean scores of Hindu ($\bar{X} = 22.93$) and Muslim ($\bar{X} = 22.33$) teachers in their commitment to basic human values, Hindu teachers were better than Muslim teachers.

Main Findings

1. The level of professional commitment of primary school teachers was moderate.
2. There was significant difference in the professional commitment with respect to gender. Female teachers were better than male teachers in their commitment to

Professional commitment of primary school teachers

learner and commitment to society, but male teachers were better than female teachers in commitment to profession, commitment to basic human values and commitment to achieve excellence.

3. There was significant difference in professional commitment with respect to nature of the post. Teacher working on permanent basis were better than those working on temporary basis in their commitment to learners and commitment to profession.
4. There was significant difference in commitment to society and commitment to basic human values of primary school teachers with respect to religion. Christian teachers were better than Muslim teachers in their commitment to society but Hindu teachers were better than Muslim teachers in their commitment to basic human values.

Recommendations

The administrators, policymakers and authorities concerned with primary education should take necessary steps to formulate innovative and properly planned strategies to attract, develop and retain the right individual as teaches in primary school level. The administrators can analyse the performance of the teachers and can provide appropriate remuneration. The teachers can be given opportunities to participate in the community related activities. The teachers can be encouraged and appreciated for their best performance. By doing so, teachers feel a sense of satisfaction and can be committed to their profession.

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Exploring the notion of inclusive education among B.El.Ed pre-service teachers

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Abstract: This paper explores the notion of inclusive education, in its wider sense (i.e. to ensure the inclusion of not only children with special needs and differently abled but also of those children who are excluded on the basis of caste, class, religion, region, language and gender) among Bachelor of Elementary Education (B.El.Ed.) fourth year students. The B.El.Ed programme was designed two decades ago and the notion of inclusive education was put in its curriculum. Inclusive education thus is the inherent feature of the programme. To attain the goal of inclusive education is a challenging task for an elementary teacher. The B.El.Ed pre-service teachers were aware of inclusive education but did not show an in-depth understanding of the concept. It was found that these pre-service teachers felt the dire need of inclusive classrooms in contemporary India and held the view that the B.El.Ed programme equipped them partially to deal with an inclusive classroom. They were receptive in getting further professional development in how to make their classroom more inclusive. This exploratory study suggests that the readiness and proactive attitude of the pre-service teachers can further be enhanced with appropriate interventions at the curriculum of B.El.Ed programme as well as at the level of pedagogy. Discussions and suggestions are built around this.

Keywords: Inclusive education, B.El.Ed., pre-service teachers, elementary education

Introduction

After India became independent, at policy level, the notion of inclusive education was restricted to special children. The Kothari Commission suggested that the education of "physically handicapped" children should be part of general education. National Policy on Education, 1986 laid emphasis on integration that means specially abled children should be integrated in the mainstream schools. The focus from integration to inclusion i.e. change in curriculum and pedagogy to make classroom more inclusive got attention in 1990 when Jomtien Declaration on Education for All (EFA) was announced to which India was one of the signatories. The second milestone was the Salamanca Statement in 1994 that again put emphasis on inclusive schools and attempted to bridge the gap between the policy and practice of inclusive education. The result of these international developments in inclusive education initiated changes in India. In 1993, a national initiative District Primary Education Programme (DPEP) was born. Later in 2001, DPEP brought under the umbrella programme called Sarva Shiksha Abhiyaan (SSA). The SSA also embraced programmes and initiatives such as Operation Blackboard (OB), Mahila Samakhya and Lok Jumbish, etc.

Until 2005, inclusion was treated as an initiative and did not attain the stature of policy. It was only after the National Curriculum Framework (NCF-2005) began to take effect

that inclusion became a policy matter and the definition of inclusion became wider. It recognized various kinds of exclusion that marred Indian education and schools. The Right to Education (RTE) not only made elementary education free and compulsory for the children between six and fourteen years but also stressed the need of education i.e. inclusive in nature. In other words, inclusive education ensured that no child is denied elementary education on the basis of her physical, sensory or cognitive disability, caste, class, gender, ethnicity, language, religion, and region. All children have the right to attain equitable elementary education.

This paper explores the notion of inclusive education, in its wider sense, among B.El.Ed fourth year students. The rationale for choosing the fourth year was that the students were at the culmination of their programme and by now their understanding of inclusive education is at its peak. With the internship, they get a first hand experience as well as an opportunity to practice what they have learnt in terms of inclusive education in the B.El.Ed programme. During this period they face the ground reality. They grapple with the challenges and devise their strategies to deal with them upfront.

An elementary teacher has a greater share of responsibility to ensure that not only the Right to Education Act is being implemented properly but the vision of inclusive education is also attained. Giroux defined the role of a teacher in following words:

“it is very hard work. That is why teachers need to be intellectuals, to realize that teaching is a form of mediation between different persons and different groups of persons and we can't be good mediators unless we are aware of what the referents of the mediation we engage in are. Teaching is complex than mastering a body of knowledge and implementing curriculums. The thing about teaching is that the specificity of the context is always central. We can't get away with invoking rules and procedures that cut across contexts” (1992, p.17).

To attain the goal of inclusive education is a challenging task. The B.El.Ed programme was designed almost two decades ago and the notion of inclusive education was put in its curriculum. Inclusive education thus is the underlying feature of the programme. Having said that the programme has no units or contents or papers (except a paper on special education that is optional and deals with specially abled learners) that are exclusively dealing with the concept of inclusive education. In the fourth year, there is a paper on “Gender and Schooling” that deals with the issue of exclusion of girls. There is considerable opportunity in this paper to discuss other exclusions that are taking place in a classroom based on caste, class, religion, region, etc., but the focus is essentially on girls and women and how they are excluded from mainstream education. As a result, throughout the four years of study, a B.El.Ed student gets several opportunities to engage with the idea of inclusive education in almost all the papers.

Inclusive Education: A Survey of Literature

A survey of available literature on inclusive education suggests that it was largely quantitative in nature and mostly limited to the conception of integrated education i.e.

education for specially abled children and study of pre-service elementary teachers' perception towards inclusion of specially or differently abled children in classroom. Black-Hawkins and Amrhein (2014) have argued that it is crucial to study the perspectives of pre-service teachers on inclusive education insofar as it helps in enriching the research pool on inclusive education. The perspective of pre-service teacher can address the issue of dearth of literature on inclusive education.

Wright, Weekes, and McGlaughlin (2000) had discussed in detail how policies have provided a context within which exclusions have taken place in British schools in the late 1980s. In such a scenario where educational policies are not favourable for inclusive school culture, the presence of a conscientious teacher who not only believes in inclusion but also practices it in classroom becomes absolutely necessary. A few researches on other aspects of inclusion explore the perceptions of B.Ed. pre-service teachers, not elementary level pre-service teachers. Collett and Jane (2010) suggested that B.Ed. pre-service teachers required to introduce the policies and made aware of sound practices and also have to formulate a philosophy regarding inclusive education (pp.21-22).

A teacher's perceptions, attitudes, and notions were largely affected by their philosophy of that particular phenomenon and issue. When it came to inclusive education, a teacher's philosophy should have those elements that adhered to the principles of human rights, i.e. human dignity, equality, and non-discrimination. Ahsan, Sharma and Deppeler (2012) explored pre-service teachers' perceived teaching efficacy, attitudes and concerns about inclusive education in Bangladesh, and found that pre-service teachers' perceived teaching-eficacy is correlated to their attitudes towards inclusive education (p.2). Lambert, Curran, Prigge, and Shorr's (2005) study found to have elementary pre-service educators attitudes more favorable toward inclusion than pre-service secondary educators. This result has a special relevance to the elementary level schooling. At this level inclusive environment of the classroom is crucial not only for a sound and overall development of children but also in achieving the goal of inclusive classroom. Williams and Morgan (2013) conducted a study on pre-service teachers' reflexive learning on diversity and their challenging role. They found that pre-service teachers had a positive disposition towards diversity but they were not committed to implementing inclusive education, which called for the role of teacher educators in shifting their allegiance from acceptance to adherence to inclusive education. This dearth of literature on wider definition of inclusive education and pre-service elementary teachers' perception about it opens up the field for research. The current research is an attempt to initiate a discussion on this theme.

Research Questions

To comprehend how these students understand the concept of inclusive education, I have formulated the following research questions:

1. How do the B.El.Ed pre-service teachers define inclusion and inclusive education?

2. What is the attitude of B.El.Ed pre-service teachers towards the need for inclusive education?
3. Does B.El.Ed program equip the pre-service teachers to deal with the challenges of an inclusive classroom? If yes, how?
4. What type of further professional development intervention do the pre-service teachers wish to get to successfully implement the provision of inclusive education?

Methods

To address these issues, a questionnaire with questions on what, why and how of inclusive education was prepared. The reason to prepare a qualitative questionnaire was to get a better and elaborate picture of thought processes of the subjects. This also helped to find the gaps and contradictions, if there were any, in theoretical understanding and practical implementation of inclusive education among the subjects. The questionnaire was administered at the end of academic year to get a fuller picture. The participants (28 pre-service teachers of B.El.Ed studying at University of Delhi) were not informed in advance to avoid tendentiousness. Thus, the data collected from these subjects was to a large extent random in nature.

Results and Discussion

With this a set of twenty-eight B.El.Ed pre-service teachers, notions of inclusive education were explored. Some of them had shown a deeper understanding of the concept of inclusive education, a positive attitude towards inclusive education and inclusive classroom but, at the same time, showed a serious concern over the inability to handle an inclusive classroom. It has also been noted that the wider definition of inclusive education sometimes got confused with the inclusion of specially abled learner into the normal classroom. The following section analyses the responses of participants in light of wider definition of inclusive education and to reach to a better understanding of their notions of inclusive education and its relevance in contemporary educational setting.

What they meant by inclusion and inclusive education?

As far as the wider definition of inclusive education is concerned not all subjects had a comprehensive understanding of it. Most of them defined inclusion in terms of caste, colour, creed, language, gender, religion and region but defined inclusive education as inclusion of special need and differently abled children. The following section would take up some of the responses from the subjects to further explore their notions of inclusion and inclusive education.

Inclusion: a phenomenon, environment, or an institution

This set of pre-service teachers had defined inclusion as a phenomenon, environment, set-up, an institution and as an approach. Some of the definitions of inclusion given by are as follows:

“inclusion is a phenomenon which exists in the premises of acceptance, it takes place when all the vulnerable sections from varying background are included in the mainstream sphere.”

From social justice perspective phenomenon is a situation which happens and whose cause is in question. From this standpoint, the participant is conceptualising inclusion in terms of deliberate and concrete efforts on the part of a society to bring the excluded individuals into the mainstream social, cultural, economic and political sphere.

“inclusion is providing an environment where children are accepted with their strength as well as weaknesses.”

The participant is looking at inclusion in terms of an environment that is infused with the culture of acceptance. The culture of acceptance means no reference points or standards for accepting any child in the classroom. The violation of culture of acceptance occurs when a teacher begins to differentiate between learners and goes one step ahead when this differentiation assumes the form of discrimination. To establish the culture of acceptance, inclusion has to be institutionalised.

“inclusion is an institution which does not differentiate between its members.”

For this participant, inclusion is an institution. An institution is deep rooted in a system. It ensures smooth functioning of the system itself. Inclusion as an institution is based on the idea of equality where all the members are treated equally keeping their background in mind. It does not imply that there should not be any special provisions for those who come from deprived, disadvantaged, and downtrodden group of society.

In a nutshell, for these participants, inclusion can be understood as a phenomenon, environment or as an institution. They all have a different key word to define inclusion but highlight similar issues. Embedded in their explanation is the idea that any kind of exclusion is wrong and it should be promoted or encouraged by any means.

Inclusive education: equal opportunities, representation and culture of acceptance

While deliberating on inclusive education, most of the participants tend to restrict it to inclusion of only special children and differently abled children into the mainstream education. Some of them have attempted to define it in a wider perspective, for example:

“inclusive education is a set up where learners from different social-economic background and with special needs such as physical disabilities are brought into the mainstream education.”

Clearly for the participant inclusion is more than accommodating special children into mainstream education. She is aware of exclusion based on socio-economic background.

“inclusive education provides equal opportunities to all people to access education irrespective of class, caste, gender, religion, region, physical, and mental disabilities, etc.”

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In the above definition, the participant has explicitly listed out the kind of exclusion that takes place at an entry level in educational hierarchy. In other words, it is a blatant denial of access to education and violation of right to education. Classroom inclusion will remain a distant reality unless access to mainstream education has made open to all those who are excluded on various bases.

A participant has come up with a very humane definition of inclusive education in the following words:

“inclusive education is providing equitable education, it also suggests, no child will be treated differently, they all will be treated as special ones.”

The participant had gone beyond the idea that every child is different and therefore should be treated accordingly. In her opinion, each child is special and therefore should be treated specially. To think on these lines is not easier and it comes only from strong conviction in the philosophy and praxis of equality. This participant had shown the same values throughout the responses, and has also shared her school experiences of how she was trying to make her classroom more inclusive. It can be said that her understanding of the concept of inclusion is comprehensive and deep.

Inclusion has to be achieved in terms of quantity as well as quality. A participant looked at inclusive education from the perspective of representation of all children. She defined inclusive education in terms of physical representation:

“inclusive education is a physical representation of schedule caste, schedule tribes, religious minorities, children with special needs, girls and LGBTs.”

In her definition, the participant attempts to include all those children who are excluded on the basis of caste, religion, special needs, and gender including the third gender. The definition of this participant is again an indicator of her comprehensive understanding of the concept of inclusive education. Not many participants had arrived at such an encompassing definition and understanding.

Some of the participants have highlighted another dimension of inclusive education, i.e. acceptance of all children irrespective of their backgrounds, religious affiliations, cognitive and physical abilities and gender orientations. The following definition equates inclusive education with culture of acceptance:

“inclusive education identifies the need of inclusion and accepts individuals, their assumptions, their sense of being without establishing benchmarks for being included in the educational domain.”

A teacher can never be successful in establishing an inclusive classroom unless she believes in it and practices the culture of acceptance. For her, there are no milestones for learners in order to be eligible to become a respectable member of the class. The moment a teacher consciously or unconsciously denies a learner's presence in her classroom she excludes that child. So, inclusion is a conscious and concrete effort on the part of a

teacher. For instance, a participant gave a reference of recent Muzzaffar Nagar riots. She has expanded the scope and the role of inclusive education in following words:

“inclusive education would also cater to the need of children who are from riot hit area for example children who have experienced Muzzaffar Nagar riots needs to be included in the mainstream education.”

The above definition given by one of the participants explains that the concept of inclusive education is very dynamic. This dynamism goes to the extent where all the learners who have experienced atrocities are also paid attention by the teacher. In other words, the teacher provides them a classroom environment where the learner feels an integral part of the class. This definition further widens the scope of inclusive education.

How do they look at the need for inclusive education?

This section delves into the attitude of participants towards the need of inclusive education. They had shown a positive understanding and attitude towards the notion of inclusion and inclusive education. Here, the attempt is to look into the rationale they provide for the presence of inclusive education in Indian education system. Following are the statements, opinions, and arguments about the need for inclusive education expressed by the participants.

“to make classroom a democratic sphere.”

The participants were able to make the connection between the concept of inclusive education and democracy i.e. an inclusive classroom is more democratic in its scope, approach and functioning.

“to strengthen the idea of diversity.”

The participant believed that the inclusive education strengthen the idea of diversity. The respect for diversity can only be developed in a diverse classroom setting. To make a class homogenous and talk about diversity is like sitting in an ivory tower. The learners appreciate diversity by experiencing it.

An inclusive classroom and school are the mirrors of society. A participant opined that inclusive education is:

“to make students aware of the differences existing in the society and accept them.”

Inclusive education does not ignore the differences prevailing in the society. It addresses these differences upfront by discussing them with the learners. The next stage in inclusive education is that it encourages learners to bridge the gap of various differences by making them aware of the nature of these differences that are created by humans. The following statement of a participant explains it well:

“it enhances the motivation, co-operation, and participation and reduces the feeling of alienation.”

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A participant feels that inclusive education is instrumental in achieving the goal of Right to Education.

“it is important to achieve the goal of Right to Education Act.”

This is a very important link that the participant has tried to establish between inclusive education and compulsory elementary education. Any deviance from inclusive education would lead to the violation of the Right to Education Act. In a nutshell, the participants believed that there is a need for inclusive education but most of them focused only on children with special needs and differently abled.

Are they aware of any policy measures on inclusive education?

Awareness about policy measures is one of the factors in understanding the notion of inclusive education among pre-service teachers elementary teachers. All the participants, except two, expressed their inability to list any policy measures on inclusive education. Those who have mentioned a few were uncertain about their responses. The two responses are as follows:

“NCF-2005 recommends for inclusive education.”

“Right to Education Act is one policy document I am aware of.”

Interestingly, these two documents are the latest policy documents where inclusive education is talked about in its wider sense. The documents are invariably discussed throughout the four years of B.El.Ed programme. Surprisingly, many participants could not recall any reference to the two documents. It is difficult to explain why the participants could not recall the documents that they discussed in almost every paper. One possible explanation could be they did not read these documents from the lenses of inclusive education but I do not have any concrete evidence to prove that.

Do they think all children can learn in an inclusive classroom setting?

One cannot engage in a relationship without passion and enthusiasm. This applies to the teacher student relationship as well. This section attempts to explore the assumptions of pre-service teachers' about the ability and inclinations of children to learn in an inclusive classroom setting. Their assumptions are indicator of their conviction in inclusive education. A participant believed that all children can learn in an inclusive classroom setting but it was challenging. This challenge can be addressed through proper professional development:

“yes, if a teacher is trained to handle an inclusive classroom.”

This statement raises the question whether training in inclusive education suffices to establish inclusive classroom. Training is a mechanical process where certain skills are taught with the help of drill. It is difficult to evaluate the extent to which training can become instrumental in achieving the goal of inclusive education.

Another participant argued that there are two things pedagogy and school settings that are crucial in establishing an inclusive classroom. In her words:

“yes, if the pedagogy and the school settings are appropriate.”

The participant seemed to believe in the efficacy of pedagogy in inclusive classroom.

Pedagogy is a vast and dynamic concept. The conventional point of view on pedagogy divides it into theory and practice. It perceives pedagogy in terms of either science (theory) or art (practices). The traditional understanding of pedagogy has changed towards an integrated approach. McCulloch and Crook (2008) defined pedagogy as the general principles of effective teaching, entailing a complex blend of theoretical understanding, practical skills and competencies (p. 429). The definition by McCulloch and Crook primarily paid attention to the teacher, teaching knowledge and skills. There can be no doubt that teacher, teaching knowledge and skills of teaching are indispensable components of a successful pedagogy. The concept of pedagogy conceptualised in the above manner certainly has effective implications for an inclusive classroom.

A participant opined that for an inclusive classroom collaboration among the teachers, principal, administration, health officers and students is necessary. She also pointed out the necessity of teachers being sensitive and empathetic in following words:

“teachers, principal, administration, health officers, other staff members and students should collaborate and co-ordinate with each other and be sensitive and empathetic in nature.”

A participant has highlighted life skills as an important facet of inclusive education. She has not listed out or reflected upon the nature and type of life skills necessary for the inclusive classroom. She stated:

“they learn better in inclusive setting because focus is also on learning life skills in some way or other.”

There is a positive correlation between life skills and inclusive classroom. They both reinforce each other. The statement established the connection but does not explain how the two facilitate each other.

The participants largely believed that all children could learn in an inclusive setting but unable to elaborate the nitty-gritty of it.

Do they find teaching in an inclusive classroom challenging?

All participants unanimously accepted that teaching in an inclusive classroom is challenging. Some of them shared their school experiences and how they struggled with the issue of gender sensitive class. They faced resentments from the students and teachers and received constant suggestions on not to disturb the gendered fabric of the school. A participant found it difficult to develop harmony amongst her learner who came from different religious backgrounds. Another participant shared that:

“a teacher has to develop new ways everyday to ensure that learning is not hampered in case of any learner.”

A participant found it challenging ensuring that learning is occurring for every learner. It is disheartening for a teacher that some of her students are not actively engaged in learning processes. To ensure that every child is learning is the biggest challenge. Sometimes, the learning does not take place because of a teacher's biased attitude towards some learners who are coming from a certain section of the society. Addressing this a participant rightly pointed out:

“as a teacher, one needs to identify her/his own biases towards different sections.”

The task of identifying one's biases or prejudices is not easy. First of all, many teachers do not believe that they are biased or prejudiced towards a section of the society. Secondly, when pointed out they would come up with an explanation that these biases are natural and permissible. A participant came up with a solution to this problem:

“a teacher should first believe in equitable education and view and treat each children equally then only she will be able to teach in an inclusive classroom.”

She pointed out that a teacher is not ready to teach in an inclusive classroom unless she believes in the idea of equality and practices it in her daily life. It can be reiterated that the beliefs and praxis of a teacher are central to the successful implementation of inclusive education.

Do they have a quiver full of plans, and strategies to address the challenges of Inclusive classroom?

Freire (1998) argued that a teaching that does not involve rigorous reflections on the teaching practices is not correct. Teachers have to unlearn those behaviours that are against the norms of inclusive education. The participants were not sure that they would be able to handle the challenges effectively. They suggested some strategies and offered some ideas but not the finer aspects of the functioning of those. A participant responded:

“to some extent yes. The idea of respecting differences in the classroom might work, organization of group activities might help to strengthen the bond between the learners.”

Here, the participant seems assessing her own statement. She is not sure that a particular idea or activity is certainly going to work. The reason behind ambiguity could be lack of experience. A participant shared her school internship experience in following words:

“no, I don't have any plans or strategies, during my internship both in the primary and middle school, I faced the problem where Muslim children were addressed with a derogatory term by the teachers and non-Muslim students. I

was not able to stop either students or teachers. I felt completely incapable of handling this situation.”

The frustration on the part of participant is understandable. Sometimes, the scenario is difficult to question let alone change. For such state of affairs, a participant suggested a slow, long term but effective solution.

“a teacher has to be patient, hardworking and humanistic in nature.”

To be patient, hardworking and humane are virtues that are difficult to inculcate. They do not come easily or automatically. Not many teachers possessed the combination of all the three. These are the virtues that do not work immediately but bring change gradually. It can be summarized that the participants did not find inclusive education an easy task. There are no readymade solutions to address the challenges of an inclusive classroom.

Do they think B.El.Ed programme instils positive attitude and prepare them fully or partially for an inclusive classroom?

All the participants had the opinion that the B.El.Ed programme definitely imbued them with a positive attitude towards inclusive classroom and prepared them partially for an inclusive classroom.

“yes, it helps us identify our own assumptions and beliefs and encourages us to firmly believe in equity.”

“I did not even know about inclusion and I was of the opinion that there should be separate schools or organisations for this, but B.El.Ed made me challenge my notion.”

It is ingrained in the programme that pre-service teachers are encouraged to critically analyse their own belief systems, biases, prejudices and opinions about various issues such as caste system, issue of linguistic and religious minorities, and gender etc. It also nurture them not only believe in equality but also practice it. A participant felt a need that the programme should also provide them with some readymade solutions as well.

“the programme focuses on acceptance and inclusion of students but does not equip one to derive strategies and implement them. The idea of inclusion is embedded in the programme but beyond that required strategies have hardly been developed.”

It has been felt by one of the participants that the programme has been immersed in the spirit of inclusion. The programme has not addressed the issue of establishing and successful functioning of an inclusive classroom. Another participant expressed the same feeling:

“it does sensitise us towards the various classroom scenarios and various policies pertain to it but if fails to properly train/educate us for such scenarios. An exposure is fairly provided but not the ability to practice.”

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It is apparent that as far as sensitisation toward inclusive education concerned, the programme is doing it effectively but unable to highlight the underpinnings of praxis of it in a classroom. Two more participants have expressed concerns over the gap between theory and practice:

“partially prepared by the theoretical exposure but practical aspect is sadly missing.”

“need to have more exposure and experience.”

The B.El.Ed programme was designed with the idea of establishing balance between theory and practice to make the quality teacher professional development a reality.

How B.El.Ed programme can be made more responsive toward inclusive education?

The suggestions given by the participants have similarities. The suggestions range from including papers to invite teachers to teach that paper who have practiced inclusive education to organizing seminars, workshops and conferences to a month long contact programme to frequent visits to inclusive schools.

“by including papers on inclusive education specially taught by those teachers who had dealt with inclusive classrooms.”

“by organizing seminars on inclusive education.”

“a month long school contact programme in inclusive school in the first three years of the B.El.Ed programme.”

“frequent visits to inclusive schools.”

All these suggestions are relevant to make the B.El.Ed programme more conducive for inclusive education.

Conclusion and Suggestions

The sample of B.El.Ed pre-service teachers were aware of the idea of inclusion but not so much about the inclusive education. By inclusive education they meant education of differently abled and children with special need integrated into the mainstream education. There were exceptions where participants had defined inclusive education in its wider perspective. Those who had a wider understanding of the concept of inclusive education defined it in terms of access to quality education, right to education, treating every child as special child, girls, third gender, and the riot affected children.

It was found that these pre-service teachers felt the dire need of inclusive classrooms in contemporary India. They are of the opinion that inclusive education is necessary for strengthening the idea of diversity, democratic classroom and to achieve the goal of right to education act. Interestingly, the participants were referring back to NCF-2005 and

right to education act, but could not articulate that these are the very documents that laid the legal or policy basis for inclusive education in India.

It was found that the participants believed that inclusive classrooms are the ideal place for meaningful learning to occur. The participants were not sure that they would be able to handle the challenges effectively and held the view that although the B.El.Ed programme has developed a positive attitude towards inclusive education, it equipped them only partially to deal with an inclusive classroom. Most of them expressed their concern over the gap between theoretical and practical aspects of inclusive education. It was found that the programme has all the theoretical ingredients of inclusive education in it but no practical exposure in terms of how to make the inclusive classroom a reality. When they were asked to mention the policies or provisions pertaining to inclusive education only a few could mention NCF-2005 while the rest admitted that they were not aware of any such policy or provision. So, their claim that the B.El.Ed programme sufficiently provided the theoretical understanding of inclusive education falls short of the mark. Most of them wished to get more hands on preparation in inclusive education. It was also found that the pre-service teachers believed in the efficacy of the attitude of a teacher towards her/his students that all students are "special" to her/him was very important in the direction of making classroom inclusive. Another important fact highlighted by them was work experience and they believed that an experienced teacher is more capable of handling challenges of an inclusive classroom.

The study reached the conclusion that the pre-service teachers were passionate and committed towards inclusive education. They were receptive in getting further professional guidance in how to make their classroom more inclusive. The readiness and proactive attitude of the pre-service teachers' can be further enhanced with appropriate interventions at the level of the curriculum of the B.El.Ed programme as well as pedagogy.

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Quality of teachers and skill formation in students

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Abstract: Substantial percentage of educated young population is unemployable in India. This is primarily due to the gap between skills required by new industrial sectors such as IT and ITES and those developed by the education system, particularly in rural India. The present study intended to identify the role of quality of teachers in imparting good education that is required for economically gainful employment. The findings are based on a survey of 500 students in 20 higher secondary schools in Uttar Pradesh, India, conducted during November 2013-January 2014. The results obtained from discriminant analysis suggest that most of the students preferred to be taught by dedicated and qualified teachers who can provide proper education to them. The employment choice of the students was gender sensitive and more towards technology intensive sector. The majority of the rural students opined that there is a need for state-of-the-art science education at the graduation level.

Keywords: Teacher quality, skill development, school education

Introduction

The Indian economy is considered to be the fastest growing with a large demographic dividend. Although the global population is ageing rapidly, India is at a strategic advantage due to its youngest population. However, there is a significant gap in skill development in India as almost three-fourths of India's population is unskilled and this gap needs to be bridged for us to remain competitive in the world market (Janardhanan, Mehta and Sinha, 2012). The World Economic Forum's Global Talent Risk report (2011) cautions that developing countries like India and Brazil will also face huge skill gaps due to low employability. There is a wide gap between the skills required in industry and those developed by the education system. India now contemplates the challenges and solutions related to this skill gap. It is necessary to address the issue of creating and/ or improving the skills and capacity of cadres for trained workforce in the country. As skill development on a large scale takes off, implementing agencies face challenges of the skill development value chain.

The shortage of appropriate skilled labour across many industries is emerging as a significant and complex challenge to India's growth and future. According to NASSCOM, each year over 3 million graduates and post-graduates are added to the Indian workforce. However, of these only 25% of technical graduates and 10-15% of other graduates are considered employable by the rapidly growing IT and ITES segments. This scenario is prevalent in almost all the industrial sectors. Hence, what we have today is a growing skill gap reflecting the slim availability of high-quality higher

secondary and college education in India and the galloping pace of the country's service-driven economy, which is growing faster than most countries in the world. As businesses propose to double and treble their workforces, India strives to maintain its position in the global marketplace, it has become imperative to prepare and plan for a world-class, competent, talented and innovative workforce.

The skill development in India faces the challenge of a pronounced skill gap in economy's high growth sectors. In order to guide the skill development policy, a National Skill Development Mission is constituted. The high growth industries such as automobiles, auto components, transportation, logistics, ware-housing, packaging, travel and tourism, media and entertainment and healthcare services are expected to create new jobs. Almost 75% of these jobs would require sector- and skill- specific trained workforce. Further, 90% of the jobs in India are skill intensive, while only 6% of the Indian workforce receives any form of vocational training. These statistics are clearly indicative of the fact that India needs to revamp its skill development strategies with a focus on industry needs and attempt to balance labour demand and supply. Furthermore the skill development is not evenly divided between rural and urban population. This is even more serious problem. While addressing the issue of skill gap, we need to pay due attention to rural-urban divide with respect to skill development.

Literature Review

Various studies have been carried out on the role of education towards economic development and human capital. Some of the relevant studies are discussed in this section.

ICT and education

According to Oliver (2013) adoption of ICTs into classrooms and learning settings has increased efficiency in terms of flexible program delivery. Another study by Oliver (2000) found that ICTs are able to provide strong support for teaching techniques as it provides world class settings for competency and performance-based curricula that make sound use of the these technologies. Another study by Young (2002) concludes that ICT has helped students' capability to undertake education anywhere, anytime and at any place. This flexibility has heightened the availability of just-in-time learning and provided learning opportunities for many more learners who previously were constrained by other commitments. He also found that teachers appreciate mobile technologies and seamless communications and are able to be used to advantage for supporting 24x7 teaching and learning.

Deaney et.al (2003) found three major necessities of using ICT, i.e. the need for wider skills for effective use of tools, the need to focus on the power of technology and the need to shift familiar patterns of classroom interaction by these technologies. On the other hand, work-based learning is becoming popular with the integration of ICT in higher education. It advocates need-based learning and training, which is convenient and cost effective as it does not require travel (UNESCO, 2002). In order to face issues

brought about by diversification, internationalisation and marketisation of higher education, it is necessary to innovatively integrate ICT in higher education (Hattangdi and Ghosh, 2008). Authors argue that this will ensure good quality, accessible and affordable higher education available to people in the developing countries.

Skill development and education

Higher education plays a pivotal role in the economic and social growth of a country. Education increases the productive skills of individuals and also their earning power. It enables individuals to absorb new ideas, increase social interaction, gain access to improved health and many more tangible and intangible benefits (Kozma, 2005). Several studies (Glaeser and Maré, 2001; Wheeler, 2001; and Lal, 2005) provide evidence that the urban wage premium increases with education, suggesting that productivity effects are strongest for highly skilled workers. Another study by Morretti (2004) also shows education influences skill intensity. By using data on industry and college education rates, it shows that college educated workforce contributes more in productivity.

Economic development and human capital

The economic development in developing countries in general and in India particularly depends largely on Foreign Direct Investment (FDI). According to Kemeny (2010), the transformation of FDI into technological gains depends on an economy's social capability that is measured in terms of human resource. Other studies such as (Alfaro, Chanda, Kalemli-Ozcan, and Sayek, 2004; Borensztein, De Gregorio, and Lee, 1998; and Xu, 2000) conclude that FDI stimulates productivity growth only when countries have reached a certain threshold of social capability. Kucera (2004) provides robust statistical evidence that educated workforce positively influences the export performance. An article by Globerman and Shapiro (2002) discusses about the empirical evidence of human capital influencing FDI inflows. They found that governance infrastructure is an important determinant of FDI inflows.

Economic development can also be achieved through better export performance. In one of the studies by Lal and Paul (2013) found that firms that employed highly skilled workers performed better compared to others. Export oriented firms largely survive due to innovation and creativity that are effectively managed by their best workforce. Hence human resources are the most vital factor for firms' innovative activity. Swart and Kinnie (2003) suggest that the concept of knowledge intensive firms should be restricted to those companies that create market value through exploitation of tacit knowledge in novel circumstances via effective management of a highly qualified workforce.

Higher education in developing countries is serving as repositories of knowledge and human capital that will contribute to the economic development of the economies (Postiglione, 2009). The importance of human capital has been captured by several other studies such as (Lal, 2005; Ducatel, 1998; and others). Lal's study finds that skilled human capital is needed not only in high-technology sector such as electronics but also in low-technology sectors such as garments manufacturing. The present era of

globalization is marked with adoption of ICT led technologies in every sphere of life. Another study by Hirakawa, Tokumaru, Shinkai, and Lal (2013) highlights the importance of human capital in economic development. The findings are similar in developing and developed countries. The findings of Lal and Shakya (2011) suggest that higher education institutions lack infrastructure needed for use of student-centered learning settings. The study also reveals that teachers in public sector institutions are not inclined to use new technologies as it involves learning for teachers as well. Hence it is considered important to analyze the institutions responsible for creating innovative human capital in India.

Objectives and Hypotheses

Education has always been viewed as a primary mechanism to improve individual welfare. In recent years it has assumed even more importance due to its positive link to the overall growth process. The modern growth theory emphasizes the role of human capital in the process of long run economic growth. The lack of education is identified as a prime cause of persistent poverty and underdevelopment. And also good institutions play a pertinent role in providing quality education to students so as they develop necessary skill. The focus of this study is to identify the role of quality teachers and institutions in skill development of students.

The main objectives of the study are:

- To identify the preference of type of tertiary education by students.
- To examine the impact of quality of teachers in skill formation in students.
- To investigate the availability of appropriate educational institutions in rural India.
- To identify and analyse the discriminants of technology intensive job preference.

Keeping the objectives of the study in mind the study formulates the following hypotheses:

H1: The role of good institution and quality of teachers is critical for employable human capital".

Educational institutions must strike a balance between technical aspects of quality support (e.g. development of course evaluation questionnaires) and fundamental issues (e.g. assessing the added value of the teaching initiatives in achieving curriculum objectives). Castelló-Climent and Hidalgo-Cabrillana (2012) in their cross-country study show that the high-quality education increases the returns to schooling, and hence the incentives to accumulate human capital. In another study, Gilpin and Kaganovich (2012) conclude that in the process of human capital driven economic growth, the rise in premium for high ability, outpaces that for the average. In view of the existing literature it is hypothesized that the role of institutions and quality of teachers is critical for employable human capital.

H2: A student's capability is a driving force in the selection of type of employment.

The students' capability and skill drives their future course and directs the kind of employment. A study by Panagiotakopoulos (2012) indicates that higher education institutions in Greece have failed, so far, to integrate key skills into their curriculum and as a result graduates are not equipped with a range of skills designed to be of practical value in the world of work. The paper argues that there is an immediate need for policy makers to develop a national policy on key skills in higher education, in order to help students secure employment, as well as help domestic firms meet their skill needs. Thus we argue that a students' capability is the driving force in selection of type of employment suggesting that science stream students are likely to prefer technology oriented employment.

H3: Preference of technical job is gender insensitive.

Gender sensitive employment creation addresses gender needs of men, women and youth in any kind of economic activity. Employment in ICT sector particularly has provided opportunities to male and female work-force into this organized sector substantially as it provides good indoor work environment that suits them. Various studies have highlighted these facts. A study by Shanker (2008) observes that the important factors that encourage women workforce to participate in ICT sector are white-collared job, comfortable indoor work environment and gender-neutral policy based on knowledge-centric skills. Based on the existing empirical evidence it is argued that technical jobs are gender insensitive.

Methods

Sample

The study is based on a primary survey conducted in Karchana Block of Allahabad district, Uttar Pradesh, India) during Nov 2013–Jan 2014. Before the findings of the study are presented, it is considered important to provide the demographic and socio-economic characteristics of the sample region. The location of the Karchana block is depicted in Figure 1.

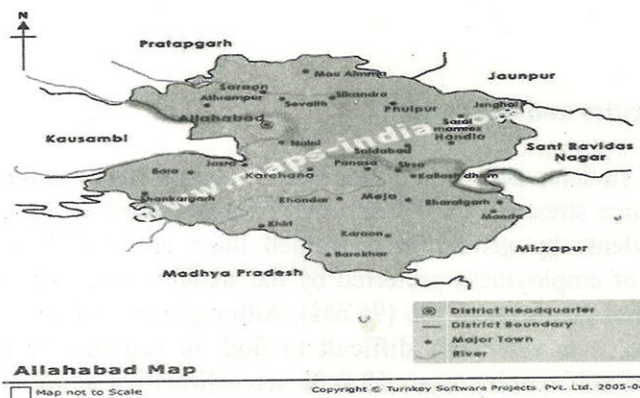


Figure 1: Map of sample area

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The sample consisted of randomly selected 500 students in 20 higher secondary schools. This included 25 students (proportionate number of boys and girls) from each school. In terms of coverage of the schools, both public and government funded were selected proportionately. Address and contact details of the schools were taken from the office of District Inspector of School, Allahabad. Prior appointment was taken from the concerned principal before visiting the school.

Demographic characteristics

The district has a geographical area of 5482 sq. km. The total literacy rate in Allahabad is 62.89%. The total population is 49,36,105 as per Census of India, 2011. Out of the total population, 53.20% are males and 46.80% are females.

According to Census of India, 2011 the total population of Karchana block was 495,431 consisting of 73,878 households. Of the total population, the percentage of males was 53.47% and that of females was 46.53%. The rural inhabitants were 99.15% of the total households suggesting that the Block is predominantly rural.

Educational institutions

There is one Central University in Allahabad. In addition, there are four Deemed Universities, one State University and more than 200 other degree colleges. There is one autonomous college in the district. There are three industrial training institutes in Allahabad. The institutions imparting primary, secondary and higher secondary education are 3228, 1854 and 767 respectively.

As far as Karchana block is concerned, there are 169 primary schools with teacher student ratio at 1:50. The secondary schools are 89 in numbers with teacher student ratio at 1:67. Whereas there are 42 higher secondary schools in this block. In recent years the state government has allowed to establish degree colleges in rural areas. Consequently, 11 degree colleges have been established in this block. Unfortunately, not a single industrial training institute exists in this block (Socio-economic Assessment, 13:2012).

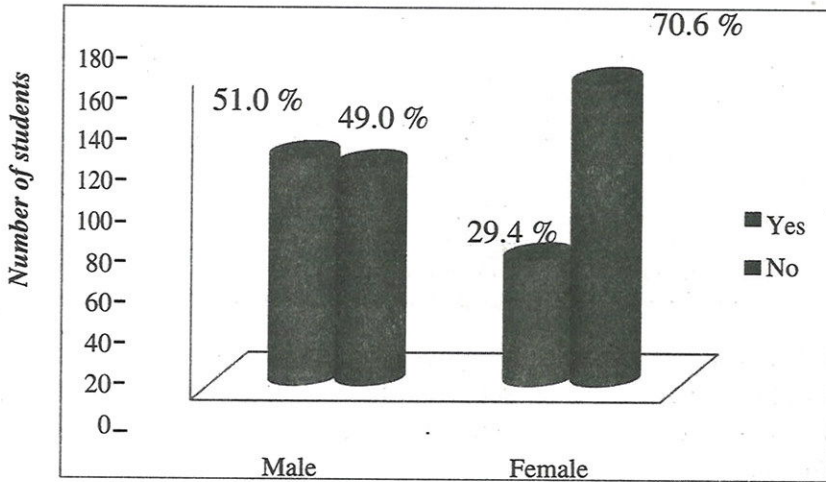
Results

Sample characteristics and data analysis

The distribution of students according to their study stream suggests that the percentage of students in Science stream is 72.0% and that of Arts stream is 28.0%. As far as the distribution of students by gender is concerned there are 51.0% males and 49.0% females. The type of employment preferred by the students was enquired. All most all the students preferred government job (96.6%). Although first preference of students is government service, it is extremely difficult to find. In response to another question about preference of self employment, 63.0 % are affirmative about it. Students were asked to reveal the type of self employment. The highest percentage (40.4%) preferred

technical job. Hence this study aims at identifying the characteristics of students who preference of technical job from those that do not.

The association between gender and their preference of technical job is shown in Figure 2.



Note: Chi-Sq Statistics =24.195, Level of significance=1%

Figure 2: Association between gender and preference of technical job

Note: Chi-Sq Statistics =24.195, Level of significance=1%

Figure 2 indicates that among males 51% prefer technical job while only 29.4% females do so suggesting that most of that female students do not want to go for technical jobs. Given the sample location (rural), it seems that girl students do not prefer technical job as it requires moving away from the homes. The association between gender and job preference is statistically significant at 1% level.

Opinion of students was sought on the availability of institutions in the region. It can be seen from Table 1 that only 20.23% students opined that good institutions are available but quality of teachers is most important (98.1%). About 79.77% students indicated that the region lacks good institutions, but even they (90.7%) opined that quality of teachers is utmost important in the development of human capital. The statistical test of the association between quality of teachers and the availability of good institutions is significant at 10% level.

Table 1: Availability of good institutions and quality of teachers

Availability of good institutions		Quality of teachers		Total
		Most important	Neutral/ Not important	
Yes	Number	51	1	52
	%	98.1%	1.9%	[20.23%]
No	Number	186	19	205
	%	90.7%	9.3%	[79.77%]
Total	Number	237	20	257
	%	92.2%	7.8%	100.0%

Note: Chi-Sq Statistics =3.118; level of significance 10%;
% □ Row percentage; Figures in square bracket are column percentage

It is expected that the students with higher grade are likely to go for technology intensive employment. Table 2 presents the association between students' capability measured by their percentage of marks in 10th standard and their preference of technical job.

Table 2: Grade of students and preference of technical job

Grade of Students	Preference of technical job		Total
	Yes	No	
Below 50	2 (1.0)	2 (0.7)	4 (0.8)
51-55	1 (0.5)	6 (2.0)	7 (1.4)
56-60	7 (3.5)	11(3.7)	18 (3.6)
61-70	57 (28.2)	91(30.5)	148 (29.6)
71+	188 (66.8)	323 (63.1)	135 (64.6)
Total	202 [40.4%]	298[59.6%]	500 (100)

Note: Figures in parenthesis are column percentage while in square brackets are row percentage

Table 2 shows that in total, 40.4% preferred technical jobs. Among these students, there is a linear association between the marks in 10th standard and percentage of students preferring technology intensive jobs. For instance, percentage of students with below 50% is just 1% while it is 66.8% who secured more than 71% in 10th standard. Although this trend is similar for students who did not prefer technical job, the percentage of students in highest bracket of marks is less than those who prefer technical job.

The preference of technical job and quality of teachers is shown in Table 3: The percentage of students who rated quality of teachers as most important and preferred technical job is 88.5%.

Table 3: Choice of technical job and quality of teachers

Preference of technical job		Quality of teachers		Total
		Most important	Neutral/ Not important	
Yes	Number	100	13	113
	%	88.5%	11.5%	100%
No	Number	137	7	144
	%	95.1%	4.9%	100%
Total	Number	237	20	257
	%	92.2%	7.8%	100.0%

Note: Chi-Sq Statistics =3.894, level of significance= 5 %

It is also very interesting to note that the percentage of students who do not prefer technical job but consider quality of teachers as very important is 95.1%. Thus irrespective of job preference, the quality of teachers is considered to be most important by majority of the students. The Chi square value of the association suggests that it is statistically significant at 5% level.

The preference of the type of tertiary education by the students is presented in Table 4. The response to this query was quite interesting with the highest response rate (57.2%) for B.Sc course with first preference at 34.6% and second at 20.4%. This is followed by B.A course with total response rate of 40.0% with 30.6% and 4.8% as first and second preference respectively.

Table 4: Distribution of students by preference of type of tertiary education

Course	Preference				Total Rate
	First		Response		
	No.	Percentage	No.	Percentage	
B.Tech/BE	95	19.0	18	3.6	23.0
Medical	56	11.2	23	4.6	16.2
B.Sc.	173	34.6	102	20.4	57.2
B.Com	9	1.8	28	5.6	8.8
BA	153	30.6	24	4.8	40.0
Law	2	.4	22	4.4	6.6
Technical course	13	2.6	61	12.2	17.2

Note: No. □ Number of students

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Contrary to our expectation, the total response rate for B.Tech/B.E courses is 23.0% with 19.0% first and 3.6% second choice of the students. The responses indicate that interest of students towards engineering courses is diminishing. It was also found that the preference of students opting for technical job after B.Sc course is quite high with 63%. This indicates a change of trend among the rural youths. Subsequently the data were subjected to advanced statistical technique (Discriminant Analysis).

Multivariate analysis

The data have been subjected to multivariate statistical technique called stepwise discriminant analysis to identify the characteristics that discriminate students who prefer technology intensive employment from the rest. The sample was divided into two groups, namely; one, students who opined in favour of technology intensive employment and two, who did not do so. The variables included in the analysis are- Gender (GEN); stream of study (STREAM); grade of students in 10th (GRADE_10); preference of tertiary education (TER_EDU) and quality of teachers (QUA_TH). The analysis is based on valid 254 observations as rest of the observations had missing data. The results are shown in Table 5.

Table 5: Discriminants of preference of technical job

Variables	Wilks' Lambda	F-statistics	Significance	Label
QUA_TH	0.984	4.012	0.046**	Quality of teachers
Stream	0.963	9.686	0.002***	Stream of study
Gen	0.958	11.112	0.001***	Gender
Grade_10	0.997	0.831	0.363	Grade in 10 th
TER_EDU	0.987	3.309	0.070*	Tertiary education

Note: ***1%, ** 5%, * 10 % level of significance

The variable representing quality of teachers has emerged as significant determinant of preference of students for technical employment at the level of 5%. The findings substantiate the general notion that quality of teachers is a major factor in imparting education to students that leads to gainful employment. It can be inferred from the findings that teacher education institutions must make sure of good quality teachers. That in turn will play a major role in skill formation in students resulting in better employment opportunities for them.

As presented in the table, the stream of study has emerged significant discriminant at the highest level i.e. 1%. It reaffirms our expectations as technical training and jobs are usually preferred by science students. Hence it is quite possible that students who opted for science stream opined in favour of technology intensive employment. The table also shows that gender is one of the significant discriminants. The finding related to gender is

contrary to the expectation. One of the possible reasons for this could be that the sample region falls in semi-rural area and the girl students might not like to move out of their houses for technical job. This finding may not be generalized as it is relevant to rural and semi-rural areas.

The preference for B.Sc education has also emerged statistically significant (10%). The significant emergence of this variable suggests that students are inclined for science education and subsequently to short term technical training rather than going for engineering education. This finding is extremely important in the current education and employment trend. As indicated in the earlier Table 4 also, the preference of tertiary education of students is more towards B.Sc and not for B.Tech/B.E courses.

Based on a score of discriminant function, two groups of students were reclassified. The actual and predicted category of the students is shown in Table 6.

Table 6: *Classification results of choice of employment*

Preference of technical job	Predicted Group Category		Total
	Yes	No	
Yes	74 (66.1%)	38 (33.9%)	112
No	59 (41.0%)	85 (59.0%)	144

Note: Classification power of the discriminant function 62.1 %

It can be seen from the table that 66.1% of students preferring technical employment were classified correctly by the discriminant function and 59.0% students who did not prefer technical employment were classified correctly. The total classification power of the discriminant function is 62.1%.

Conclusion and Implications

The paper aimed at identifying the role of quality of teachers and institutions in developing required skill for economically gainful employment. Findings of the study are based on a primary survey of randomly selected 500 students studying in 12th standard. The students were selected from 25 schools located in Karchana block of Allahabad district in Uttar Pradesh. The sample included government aided and privately managed schools proportionately. Twenty students were selected from each school while keeping the gender balance.

The findings of the paper suggest that quality of teachers in skill development has been assigned utmost importance by majority of students while controlling for other characteristics. Although first employment preference of the students emerged as government service, it is difficult to find. Among self-employment category, technology intensive sector has been the preferred choice of majority of students. The paper further

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identifies and examines the characteristics of students that distinguish those who opted for technology intensive employment from the rest. The data are analysed using Discriminant analysis technique.

It is found that students who assigned highest importance to quality of teachers favoured technology intensive employment. Second characteristic that emerged significant in differentiating two groups of students is the stream they were studying in. This is quite obvious that mostly science students preferred technical job. The distinguishing characteristic is their choice in tertiary education. The most startling finding of the study is that B.Sc. is preferred than engineering courses at graduation level. The discriminant analysis results suggest that students who want to do B.Sc. are inclined for technical employment. The paper finds evidence to suggest that preference for technical job is gender sensitive:

The implication of the study is that the quality of teacher education needs to be on high agenda of the policy makers. As emerged from the study, quality of teachers is a major factor in creating human capital needed for gainful employment. And, quality of teachers in turn would depend on quality of teacher training institutions. The quality of teacher training institutions also includes physical and academic infrastructure of these institutions. Based on the findings of the study it is recommended that due attention needs to be paid to teacher education. If good teachers are produced by teacher training institutions, they in turn are expected to create better quality in their graduates.

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Philosophical legacy of Indian education and teacher development

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Abstract: Indian education system during the ancient period was well organized and aimed to induct young children into the society as civilized adults responsible to contribute in its progress. It was characterized by its unique nature and structure whose contours are abundantly reflected in traditional Indian scriptures as well as in the thoughts of the doyens of Indian philosophy. This paper attempts to throw some light on the philosophical bases of our educational heritage that we boast of having possessed and practiced for centuries on this part of the earth. The presentation is expected to stimulate fresh discussion on the contemporary relevance of this heritage which may prompt attempts to revivify the philosophical legacy of that system of education and make educational policy makers and practitioners take a cue from its strengths for reforming the present educational set up, particularly its critical aspect of teacher preparation and development. Knowledge from our saints and indigenous knowledge is crucial to development of teacher educators and teachers.

Keywords: Indian education, teacher development, ancient education

Introduction

India has been home to one of the oldest civilizations of the world. A civilization evolves and progresses over a long stretch of time and space through accumulation and reformation of human experience. As civilization is 'more rational and socially driven', it always has a core of ideas and principles propounded by wiser individuals through their deep reflection and rational engagement with nature which is responsible for its continued progress. 'Literacy' as one of the essential characteristics of a civilization helps in transmitting and transforming ideas into practice through various structural arrangements resulting in progress in every sphere of action which should ultimately help towards 'the spiritual perfecting of individuals' (Schweitzer, 1987). Indian education system in the ancient times, particularly in Vedic and later periods, was one such arrangement which was meant for inducting young children into the society as civilized and responsible adults. It was characterized by its unique nature and structure whose contours are found in traditional Indian scriptures as well as in the ideas of many Indian philosophers. These ideas and principles concerning human life as enriched by sages and philosophers like Mahavira, Buddha, Ramakrishna, Vivekananda, Tagore, Aurobindo, and others constantly guide us in our day to day pursuits, make us appreciate the splendour of our rich heritage and help us link our heritage with the contemporary milieu especially when this milieu has endured multiple impacts of the processes of globalization in its economic, socio-cultural and political domains. These philosophical thoughts formed the bases of the ancient educational organization and gave it a unique

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character as explained later. Many aspects of this educational heritage and its philosophical principles still seem to hold good. Educational policy makers and practitioners need to take a cue from this heritage and its philosophical legacy while initiating reforms in the present system of education particularly in its core area of teacher preparation and development.

The riches of Indian culture and philosophy as accumulated overtime through intelligent reflections and insights of sages is preserved in the Vedas, Upanishads, Puranas, etc. It is in recognition of this invaluable cultural and philosophical treasure that the German philosopher, Max Muller had observed, 'one thing is certain, namely, that there is nothing more primitive and more ancient than the rhymes of the Rig Veda, whether in India or in the whole Aryan world. System of culture of India lies in the Vedas.'

Indian Education System

The robust education system that remained in place across India during the ancient period continued to operate during the medieval period also, though its scale came down owing to the installation of alternative systems of education and emergence of new socio-economic factors in the society. Traces of this system of education may be seen even now in *gurukulas* and monasteries being run in some parts of the country. The survival of this system of education through millenniums, though on varying scales, is not merely because the society very much needs it for meeting its socio-cultural needs but, more importantly, because the system was built on such sound philosophical foundations which had a universal appeal and were able to withstand the test of time. Kabir (1961) asserts that the philosophical principles are as universal in nature as are the principles of science, for both represent only different aspects of truth or the Real and that the Real is not diverse in nature. It is only due to the background, training, capacity, and interest of the individuals that they come to discover different aspects of the Real. So, the pursuit of truth with the object to understand the material aspects of the Real gives birth to different sciences whose principles are universal, whereas quest for truth of the whole lies in philosophical ideas which again are universal in nature. The study of philosophy of education which represents the underlying ideas as principles is important because these principles influence the educational policies and practices in a society. Educational policies or practices which are meant to serve some requirements of the society are dependent, besides other factors, on the basic belief system or ideals of the society. So, a national system of education may be said to be a reflection of a national system of ideals and, in order to know the educational philosophy of a people, we must find out what are the ideals which it has kept before itself. In other words, educational philosophy of a people will depend on its concept of man and the values it considers worthy of human pursuit which will define its aims, content and process of education (Kabir, 1961).

Human Personality

The Indian philosophy recognizes many sided nature of the human personality in which self or spirit or Atman is the core. Fulfilment of the self or emancipation of the spirit is

the ultimate aim of education and to attain man's self fulfilment, education is sought to give due cognizance to all the elements and levels of the human personality. According to Samkhya Yoga, the human personality consists of three elements, viz., (1) the soul or spirit (*Atman* or *Purusha*) which is the core; (2) the subtle body composed of the senses and the mind, the intellect and the motor organs; and (3) the gross body which is the visible body composed of material elements. The conception of the self in the *Upanishads* is not very different but here the *Atman* is conceived as surrounded by five sheaths or covers (*Panchakoshas*). It may be noted that the concept of self and its educational implications as explained in the Indian education system is much wider than what is conceived by the modern educational psychologists which is rather more confined to the psychological and emotional aspects of the human personality. For Samkhya Yoga, education is the means to develop the physical and the subtle body so that the soul or spirit can express itself unhampered. Whereas, according to the *Upanishads* the object of education is to train and exercise the five *Koshas* in such a way to make them as fit instruments for good life, which is a state of non attachment. Once this state is attained the soul liberates itself from *Koshas* and attains unity with the Absolute. This is what Swami Vivekananda also meant when he said that each soul was potentially divine and education has to help manifest this inner divinity of the soul. The attainment of four-fold aims of life, as per the ancient Indian outlook, viz., *Artha* or wealth, *Kama* or enjoyment of desires, *Dharma* or the attainment of moral virtue and *Moksha* or liberation from attachment and suffering, also leads to the total unfoldment of divinity of the soul and its complete emancipation or *Mukti*. Thus, in the Indian conception of man; body, mind and soul have been given their proper position and function. The aim of education, therefore, is to develop the total personality of the individual and train all the three aspects in an integrated manner so that he can discharge his roles and functions in the society effectively. This aim is stressed by Gandhi as well when he speaks of all round drawing out of the hand, head and heart. It may therefore not be wrong to say that the emphasis laid by modern educationists on the goal of all round and balanced development of personality through education is a legacy of the philosophy of Indian education.

Nature and Classification of Knowledge and Content of Education

In order to realize the aims of life culminating in attainment of immortality, the individual is required to acquire both material and spiritual knowledge. *Upanishads* divide all knowledge or *Vidya* into *Para Vidya*, the real or ultimate knowledge or spiritual truth and *Apara Vidya* or subsidiary knowledge. Included in *Apara Vidya* is knowledge of various disciplines including secular sciences, arts and vocations. Some schools even consider knowledge of the *Vedas* as *Apara Vidya* (*ibid*, 1961). However, *Isha Upanishad* more clearly calls *Para Vidya* as *Vidya* and *Apara Vidya* as *Avidya*. But it declares both kinds of knowledge as essential for a human being to attain self realisation. So, one who possesses both, can only overcome death. While *Avidya* would help one to maintain life, *Vidya* would lead him to attain immortality (*Amarya*). Inherent in this classification of knowledge is the appreciation of needs and importance of both, physical as well as spiritual aspects of human life and the need for their development

through appropriate education for a balanced and harmonious development of the individual. This kind of complete training of the individual was carried out in Ashramas where he would acquire learning while living with the teacher who was his mentor and working for him and following his guidance. A similar kind of arrangement for education of disciples is seen in the medieval period concept of Khanqahs of the Sufis.

Diversification in Education

Education in the Indian conception is a process of drawing out which is implicit in the individual and development of its latent potentialities till they become actualities. This point is further elaborated by the concept of Sanskara or innate tendencies which allows every kind of inclination or ability to find a place and asks for *diversification in education* according to the interest and aptitude of young persons. Diversification in education has long been felt necessary by modern educational planners in order to provide interest and need based education and address varied manpower needs of the society. Success in any attempt of diversification rests on how well the concept of Sanskara has really been applied. The debacle faced by the existing programme of vocationalisation of education needs to be investigated in the light of this principle. It is also argued that if a more apt translation of the concept of *Dharma* is taken as 'nature', in the sense in which Aristotle has used it (as against the commonly held meaning of 'religion'), the Svadharma would mean 'intrinsic nature' of a being which was sought to be defined with reference to the physical, mental and moral equipment of the individual as well as his family traditions and his personal inclinations (ibid). The Sanskaras or inclinations largely determine one's place in life which also leads to the concept of *Adhikara bheda* or determination of the fitness of a child for a particular course of study as per his aptitude and capability. Thus a child under the concept of *Adhikara bheda* is allowed to go to a higher class only when he acquires the knowledge needed at the lower stage. However, with the caste system becoming rigid, this concept was misinterpreted and misused for perpetuating inequality among human beings. The concept was actually meant to provide equal opportunity of education to all individuals and facilitating their education and development according to their innate abilities and aptitudes, exactly in the same way as it is advocated by proponents of progressive education movement in modern democratic society. Continued misinterpretation of this concept for centuries has led to many discriminatory and exploitative practices in social and economic institutions and it is responsible for many deep rooted problems that are presently being faced by our society. The world of education also suffers on account of these discriminatory practices followed by the educational practitioners.

Grooming a Good Human Being

Besides offering interest-based diversified education for all, emphasis in the Indian education system was on grooming a good human being which is one of the most important concerns of the present day society also. It is to address this contemporary concern that Tagore said, 'the principal aim of education should be to produce a moral and a spiritual man, the whole man' (Safaya, 1981). Education of a child remains incomplete without attending to his moral and spiritual development needs.

Globalization led trade in educational services and commodification of education has hardly left any scope to pay attention to moral development of young persons. In fact, the problem of lopsided development of individuals in the modern system of education had started much earlier as may be seen from the observation made by Gandhi in this regard. He observed, 'much of what is taught in our schools could only make a person literate and not educated'. He further stressed that the real education lies in "character building" rather than studying arithmetic or geography. In Vivekananda's opinion also, education is a multidimensional pursuit and all its dimensions need to receive a balanced attention. He says, 'it is not the amount of information that is put into your brain and (that) runs riot there, undigested all your life. It is indeed life-building, man-making and character making assimilation of ideas'... 'We must have education by which character is formed, strength of mind is increased, the intellect is expanded and by which one can stand on one's feet' (Avinashilingam, 1958). Through this comprehensive scheme of Indian education the individual was prepared to discharge his duty towards four groups viz., parents, teachers, community and society at large before attaining Moksha or liberation. Swami Dayananda also used to say that this world is a moral order and hence, moral values and self-discipline are a necessary conditions for performing these duties successfully and so, education must groom these values and capabilities in the individuals.

Harmony and Cooperation

In Indian education we also find emphasis on Samanvaya or cooperation, whereby man's effort is to live in harmony and in unison with (and not as the master of) the nature which is opposed to the Western conception which emphasizes man's struggle for the conquest of nature. The emphasis on harmony and cooperation permeates in every aspect of the Indian education system and this extends beyond humans to the animals, forests and other forces of the nature. Emanating from this feature of Indian education is the value of tolerance which arises not merely out of respect for all human beings but even more out of the recognition that ultimately all individuals are the manifestations of the Brahman and since Brahman is only real, whatever is its manifestation is worthy of respect (ibid, 1961). The global community today is feeling seriously concerned about the increasing incidence of conflicts and violence in many parts of the world and is trying to build peace among people by developing spirit of understanding, togetherness and cooperation in the human race through dialogue. This spirit of peaceful co-existence can best be developed by making people appreciate their shared relationship with one creator as described in the Vedas and other scriptures. As the principle of Samanvaya also emphasizes living in harmony with the nature, its inculcation would also help develop an attitude which is appropriate for achieving the goal of sustainable development, a matter of global concern.

Preparation, Development and Conduct of Teachers

Teacher is the main source of acquiring knowledge and imbibing values in Indian education system and hence, he occupies the most coveted position in the society. So

much exalted is his position that, Vedas declare him to be superior to father of the child who has given him birth (Sharma, 2002). The seekers of knowledge are therefore commanded to pay him highest regards as is explicitly mentioned in The Gita. It says, of all the qualities needed for attainment of truth, first and foremost is respect of the teacher and the next is self control and discipline. Of course, on his part, the teacher is also sought to be diligent, pious and a role model for his pupils. Swami Vivekananda's *mantra* for those who aspire to become teachers is very simple. He says, 'the *sine qua non* of acquiring truth for oneself, or for imparting to others, is purity of heart and soul. Hence, a teacher must be perfectly pure and then comes the value of his words'. He further stresses that in the course of taking up his work, 'the teacher must throw his whole force into the tendency of the taught. Without real sympathy (with the child) we can never teach well' (Avinashilingam, 1958).

We find these important elements of the teaching profession conspicuously missing from the lives of a large number of our teachers which is seriously affecting learning and personality development of our children and young people. The efforts made by many committees towards ensuring moral development and character building of individuals by incorporating these aims in school curriculum, have not borne much fruit primarily because we have not seriously worked for developing these qualities in our teachers.

In ancient India, for teachers to be able to perform their duties successfully, they were also expected to continuously engage themselves in learning. The command of Vedas, 'Do not forsake learning and teaching (Taittiriya Upanishad, 1.11.1) is particularly meant for teachers. It was then a common understanding that there is no end to learning, it is life-long. Sri Ramakrishna, therefore, used to say, 'as long as I live, so long do I learn' (Sunishthananda, 2005). Quest for knowledge was an ever enduring quest for truth which only, it was believed, would help man achieve success in his life pursuits. This is clearly borne out from the words of Rig Veda which says, a 'noble soul who pursues the path of truth is never defeated' (Rig Veda, 9.73.8). Significance of the tradition of lifelong learning has now been fully realized world over and in view of the pivotal role being played by knowledge in the development of societies, educationists and planners are now advocating the need for lifelong education of every worker. More than anyone else, this Indian tradition needs to be urgently revived for our teaching fraternity if we wish to improve quality of education in our educational institutions.

Conclusion

The narrowness of today's broad conception of education due to its excessive orientation towards material and economic spheres of life gets visibly clear once we situate it against the Indian concept and system of education as explained here. This myopic view of education is one of the major causes of the spate of crises that we or for that matter the whole humanity is facing today. We need to think of ways to develop the 'whole man' who likes to live in harmony with others across the globe as well as with nature and its bounties, and also cares for the needs and rights of the next generations. It demands redefinition of the objects and processes of education. In this endeavour, the most

important role has to be played by the most critical but highly neglected element of teacher, who is the prime mover of the system of education. His quality of preparation must kindle in him a spirit of humane service to seekers of education, and create a sense of concern for their dreams and aspirations and a deep interest in his professional engagement. Such teachers only can help improve the impact of the massive educational enterprise that we boast of hosting in this country on learning and lives of our young generations. Education policy makers and curriculum planners, as also the organisers of teacher education system need to rise to the occasion and take cue from philosophical principles of Indian education which until sometime ago were so successfully practiced on this part of the globe. Some islands of learning which are still following these time-tested principles of Indian education suggest that these principles are still valid and feasible. What we really require is our faith and conviction in them.

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Teacher education in my dreams¹

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Abstract: This reflective paper articulates that teacher education in India, which equally has many strengths as well as limitations, must be mainstreamed with higher education; integrated programmes of teacher education exclusive for various levels (like secondary, elementary, pre-school, etc.) be initiated; comprehensive colleges be expanded with composite nature and single course teacher education institutions should grow to become institutions of educational studies. Further, while there should be more rigour in developing teacher educators, improvements are required to strengthen teacher education offered through open and distance learning.

Keywords: Integrated teacher education, teacher educators, open and distance learning

I am grateful to the organisers of the Conference for giving joy and happiness that I feel, firstly to be in my Alma Mater and secondly to participate in a meeting of my beloved professional Association. Lots of memories pile up of the four years (1942-46) I spent in these hallowed grounds for my basic higher education, collecting the B.A and M.A degrees in 1944 and 1946, 62 and 60 years ago. This University formed the foundation of my education.

My association with IATE is almost 50 years old. My first love in teacher education is for my Alma Mater and my career-long place of work – the Central Institute of Education, which initiated me into teacher education and gave me opportunities to grow professionally. My fondness and love for IATE is only second to that for the CIE, my association with it of more than 40 years – its General Secretary for a term, member of its Executive and editor-proof reader-despatcher for its Journal *Teacher Education* for 10/12 years.

My Dreams

With these warm feelings in my body and soul, my conscious, subconscious and unconscious being, it is not surprising that I often have teacher education in my sleep too.

Kindly allow me to share with you some of my dreams. I think that they are prompted by the recent phenomenon of integrated Law education and opening of Law colleges. In my dreams, I see large-sized beautiful campus-based teacher education institutions in

¹ Updated version of Keynote Address delivered at the Inaugural Session of the Indian Association of Teacher Educators, XXXIX National Conference held on 10-11 February, 2006 at the University of Allahabad, Allahabad. Professor R.N. Mehrotra is retired professor of education and had been Dean, Department of Education (C.I.E.), University of Delhi.

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different towns all over the country. I often see open, green Campuses of Education with impressive buildings including residences for staff and hostels for students with vibrant youngsters moving around merrily and with scholarly seriousness.

My dreams further include a few Indian Institutes of Education, (I.I.Es) which attain the reputation and status of the IITs and IIMs. Besides, there are a large number of reputed Regional Institutes of Education, National Institutes, State Institutes of Education, reputed University Faculty/Department of Education, District Institutes of Education and Training (DIETs) with enhanced functions at all levels. The private sector has entered in a big way. There are Tata Institute of Fundamental Research, Birla Institute of Education and so on. Some of them have deemed university status, some are institutions of national importance, some are constitutionally autonomous.

I dream that there is great demand for joining teacher education programmes – the talented school leavers get attracted to teaching profession and seek admission to these courses. As a result, the coaching sector is in it actively. The popular coaching institutions, the FITJEE, The Brilliant Tutorials, the Bansals Classes are preparing for admission to education programmes. The Kota town is full of Education applicants.

There are campus placement interviews and the students are offered jobs in private, aided, and state schools before their passing out. An annual package between 6-12 lakhs is offered to their toppers. The scales of pay are the same at all levels of education. The similarly qualified get the same scale whether they teach in a nursery or primary or secondary school.

In my dreams, I perceive the immediate and distant vision of these institutions which have achieved excellence in: (1) study of education, and (2) education of teachers. They are vibrant organisms constantly generating scholarship and its application. Quality is the hallmark of their activities. They are a source of inspiration to coming generations, inciting their imagination, provoking among them thoughtful reflection and creative thinking on both the concept and the praxis of education in all its multitudinous dimensions and parameters. They have developed multifaceted links with formal and informal appropriate structures and mechanisms between the University, the Faculty, the Departments, the educationists, the teacher educators, the student teachers, the school practitioners, the schools, and the society.

The faculty of the institutions of teacher education have matured into such an expert body that it and its individual members are looked up and sought for ideas about educational policies and strategies at the micro, meso and macro levels. Their products are valued in schools, in teacher education institutions, in international and national professional educational organisations as experts in curriculum development, textbook writing, and as institutional planners, researchers, and such other professionals in education.

These are my dreams—always in early morning, which, it is said, prove to be realistic and fulfilled in future.

How do we realise these Dreams?

Teacher Education should clearly define its mission, compatible with this vision and accordingly lay down its objectives to be transformed into specific attainable goals and programmes and their transaction.

The concept of 'Excellence' of an educational institution includes visible demonstrated performance. Its products are recognised and valued highly locally, nationally, internationally. It is built into the following internationally accepted education criteria/quality indicators:

1. Visionary leadership
2. Learner centred education
3. Organisational and personal learning
4. Valuing faculty, staff, and partners
5. Agility
6. Focus on the future
7. Managing for innovation
8. Management by fact
9. Social responsibility
10. Focus on results and creating value
11. Systems perspective

Globalisation and Teacher Education

I begin with the present favourable practice among academics to refer to Globalisation. I submit to the notion that a Lecture is incomplete if it does not talk of Globalisation. I base my ideas on a document called Helsinki Process. Globalisation contains forces for both good and ill. The world today faces both *opportunity* and *threat-opportunity* to come together to pursue a common goal or break into opposing groups based on differences in race, faith, interests or income. These create tensions, the worst of which is the sense of increasing inequality in an already unequal world. A minority is growing in astronomical richness while billions of human beings live in abject poverty and their number is increasing. Humanity has to meet this major ethical challenge. Inequality goes with lack of democracy, loss of dignity and freedom of the individual, societies and nations. It may result in economic and cultural colonialism with the few powerful dominating the weak and this filters down at all levels—international, national, local.

Glocalisation

(Recently, I came across a term Glocalisation – a hybrid, fusion between Global and Local – so Think Globally, Act Locally – is expressed by Glocalisation). There is need to reflect on transformational actions, reversing some of the current trends and forces. The change agents will essentially have two components, viz., (i) value based (ethical) principles binding actors to common purposes, and (ii) instrumental, which involves individual, institutional and corporate efforts. Responsibility for human solidarity rests

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with each of us as a citizen, of our community, state or globe—local, national and public institutions.

Three major engines of change in society which have to work together to move the society forward are (i) the state, (ii) the private sector, and (iii) the civil society. It is the synergy, the simultaneous, substantial efforts of these three which will give global society a new sense of itself as just, open and fair. The complementary rather than competitive relationship among these three, with all their institutions, will give results in education, health, gender equality, poverty reduction, and environment.

Any agenda in this direction will include an important role for *education*. Education implies great responsibility on *teachers*. Whenever teachers are the actors, *teacher education* gets a place of honour and of accountability.

Globalisation has opened the gates for hyperactive international managers of education.

Education as a market commodity has brought in very sharp salespersons, with expertise in opening chain malls (campuses) and selling their wares (courses). The Educational Fairs of Australia, Britain, USA and other countries are enticing our youngsters with their campuses, degrees and job prospects. Courses in Management, Engineering, and Medicine are the commonly flaunted goods. Fortunately, they have not intruded into teacher education yet. Therefore, there is still time for us to sit up and build strong, safe security walls of quality curriculum, excellent programmes and effective teacher education.

How?

Present State of Teacher Education

Some of the disturbing features of the present state stare me in the face. The teacher education has comparatively low credibility. There is general dissatisfaction. General ambience in the teacher education community is that of pessimism. Over the years, proliferation of substandard B.Ed. institutions and rank commercialisation are disturbing concerns. A gloomy feeling of helplessness is pervasive. Many institutions function only for admission, examination (without the students going through the prescribed courses) and award of degrees. We teacher educators are largely responsible for this. Secondly, in our long-due campaign for removal of illiteracy and 'all children in school', we have taken certain measures which compromise with quality, infrastructure, and teachers' qualifications. Teachers with low level of general education, no pre-service teacher education qualifications—popularly called 'parateachers', with very attractive nomenclatures like Shiksha-Mitra, Saraswati-putra—have been employed in very large number for a very large number of primary schools. Even for regular teaching jobs in elementary schools, persons not trained for that level are being employed. The long existing evil of the B.Eds, which the degree provides preparation for secondary education, being recruited for the elementary schools, with or without some nominal

orientation to elementary stage, continues, though NCTE of late has initiated bridge course in elementary teacher education for such teachers.

Action Plan

The teacher education fraternity is an intelligent and committed group of professionals. Fortunately, a very large number of teacher educators are devoted to their duties and are conscientious workers. In their sincere and dedicated work habits lies hope for the future. Nothing much is lost yet. There are many institutions which are performing their task in a disciplined, regular, and efficient manner.

My dreams can possibly be interpreted by my psychologist friends as expressions of my unfulfilled conscious, subconscious and unconscious desires. So be it. But I believe that they are not in the realm of impossibility of realisation. With vision, mission and action, they may prove real one day; may be, hopefully, even in my life-time.

We need to think and reflect on the steps to be taken so that my dreams are realised. We need to open out and expand our mental horizons and carry out our vision and mission enthusiastically.

I wake up to the real world. I suggest that we should think big and act big. I suggest the following for consideration.

1. We should plan for large sized Comprehensive Colleges of Education.
2. Integration be the focus, our Mantra – there be integration of (a) general and professional education, (b) of teaching for all levels of schooling – specialisation and integration, (c) of content and pedagogy. The dichotomy of the discipline and pedagogy must go. The same teacher educator in a school subject should handle both the content and the methodology.
3. Teacher education at all levels be taken over by higher education.
4. Specialisation in a stage of education be strictly accepted and enforced. Teachers with pre-service courses for a particular level of education only teach that level.
5. Private-Public Collaboration – We should adopt private-public partnership model. The private enterprises be accepted with open hearts but with care and assurance that their motives and attitudes be more altruistic, philanthropic and social, rather than profit making.

In this context, with some trepidation, I draw your attention to a phenomenon in the international academic culture. There is a trend among academics in even universities like Oxford, Cambridge and Harvard, to become entrepreneurs, cashing on their research work. The inhibition that we should not 'stoop down' to make money is disappearing. The feeling is 'we sweat out in our institutions while clever businessmen make money out of our expertise'. Why should some of us not be entrepreneurs, after retirement and in-service, instead of giving the businessmen

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advice/ consultancy on a pittance, or membership of their Managing Committees? Let us not dismiss the idea that serious academic work and business could not go together or that it involved too many ethical compromises. As long as we do maintain our passion for normal teaching and research work, we do not 'sell our soul', we may market and cash our ideas, innovations and expertise in building good schools, good teacher education institutions.

6. Teacher education be considered an individualised course; teach the individual rather than the class average.
7. *Very Important:* Take measures to strengthen the preparation of a Teacher-Educators'. Restructure M.Ed. courses.

Allow me to elaborate two of these points: (i) the restructuring of the initial undergraduate teacher education courses, and (ii) the education of Teacher Educators.

- I. Presently the following two ideas have emerged with universal consensus among academics and practitioners in teacher education all over the country.
 - a) Teacher education be '*brought into the mainstream of the academic life of the universities*', that is, teacher education programmes at all levels — pre-primary, elementary, secondary and post graduate—be part of the higher education system. At present, only preparation of teachers for secondary education is within the purview of universities. Teacher education for elementary education is looked after by state education departments through bodies like State Council of Educational Research and Training. Pre-school teacher education is generally in private hands.
 - b) Introduction of 4-year integrated courses of general and professional education in universities/ colleges of teacher education to be pursued concurrently after the completion of 10+2 level of school education.

This would lead to Degrees like:

1. A 4-year Bachelor of Secondary Education—B. Sec. Ed. or B.A/B.Sc./B.Com B.Ed. (Secondary).
2. 4-year Bachelor of Elementary Education—B. El. Ed. or B.A/B.Sc./B.Com, B.Ed. (Elementary).
3. 4-year Bachelor of Pre-Primary Education—B. Pr. Ed. or B.A/B.Sc./B.Com, B.Ed. (Pre-School/ Pre-primary).

Many degree colleges in the country have Departments of Education offering B.Ed. / M.Ed. / research courses. They need to be integrated with General Education courses and include elementary and pre-school teacher preparation also.

4. While these suggestions may take some time to materialize, the following approaches may be considered by the one-year B. Ed. institutions to start their journey on the road to ultimate full-fledged 4-year courses.
 - The present B. Ed. for graduates is a B. Ed. (Secondary). On the same pattern, introduce one-year specialised B. Ed. (Elementary primary/ Nursery).
 - Alternatively or simultaneously, introduce:
 - (i) Diploma in Education (D. Ed.) – a 2-year Elementary Teacher Education course for the Class XII/Intermediate/Senior Secondary passed.
 - (ii) Certificate in Education (C. Ed.) – a 2-year Pre-primary Teacher Education course for the High School (Class X) passed.
 - The present main flagship of teacher education – B.Ed. should play a low role and be gradually phased out. It may continue to be offered only to postgraduate Degree holders (in some school subject). It also may be diversified as B. Ed. (Secondary), B. Ed. (Elementary) and B. Ed. (Pre-primary). This suggestion and other alternatives may be considered at a later stage, after the 4-year integrated courses get stabilized. In course of time, the one-year course is abolished.

With these two, the existing B.Ed. Colleges may be equipped to offer three teacher preparation courses leading to B.Ed., D.Ed. and C.Ed.

Their introduction should not face much difficulty. The intake numbers may be decided according to local conditions and resources. Both of them are NCTE approved courses with prescribed Norms and Standards. It may be taken as an experimental initiation, a 'try-out', 'seeing-our-way' to the lower levels of teacher education. With this experience, B.Ed. institutions may grow into a full-fledged Institution of Educational Studies.

- II. An essential implication of the above is to establish large-sized teacher education institutions, catering to 600-1000 students (with an intake of, for example, only 50 for each year, there will be 200 students in each level) for a 4-year course.

This policy will be in line with other professional courses like Law, Engineering, Medicine etc.

The proposals for integrated programme of teacher education of 4/5 years catering to all stages of teacher education made off and on in the past and implemented and given up in some institutions and now presented to the nation by The National School Curriculum Framework, 2005 and its Focus Group on Teacher Education

need to be seriously pursued. The large-sized colleges will be on the lines of Comprehensive Colleges of Teacher Education as conceptualized in the Secondary Education Commission (Mudaliar Commission) long back in 1952 and have been paid lip-sympathy again and again.

Education of Teacher Educators

Teacher Educator has a crucial role in quality assurance in teacher education. A cursory job-analysis of a teacher educators reveals that they are required to teach theory, to supervise student teaching, to facilitate exposure and adjustment to school situations, to provide individual guidance, to counsel in personal and professional problems. They are philosopher, friend and guide to the prospective teacher. As teachers, they tend to become a model—ideal, good or bad, to be copied. Their conduct and style, interest in the school subjects, ways of relating to student-teachers mould their outlook and behaviour as teachers. Their visible approach to their duties, spirit of sincerity, sense of seriousness, relations with colleagues and school teachers are seen and effortlessly learnt by student-teachers. They, thus, are expected to help them understand education in all its parameters, to attain skills of classroom teaching and to build up professional attitudes. They also should stimulate curiosity and assist in generating knowledge.

Besides, they should extend their services to the school system. They also conduct and guide research. Considered educationists and experts on educational matters, they are often consulted and participate in policy-decisions and administration.

Equipment of a Teacher Educator

To ensure good performance in these various job-oriented activities, a teacher educator should be adequately equipped in the beginning of his career and remain so throughout his working life. He/she should be saved from obsolescence, routinisation, and burn-out.

Is the teacher educator adequately equipped when he/she begins his career to perform well? How has he/she been prepared for his responsibilities? How does he/she continue to maintain and improve upon what he began with? How does he/she avoid becoming a worn-out machine?

It is my perception, sadly, that neither by pre-service education nor by in-service programmes, nor by experience, our teacher educators are well equipped for effective teacher education.

With respect to his/her academic preparation, he/she has a long period of general education followed by or integrated with professional courses. Generally, at all the levels of teacher education, teacher educators possess a Master degree in Education. Many of them have also a Master Degree in a school subject and have also obtained a research degree—M. Phil or Ph.D.

We should design a pre-service course which prepares teacher educators for specialization in anyone or two aspects and areas of teacher education. It would need

offering a comprehensive course in each area—whether it be (i) theory/foundation areas like philosophy/ psychology/ history/ sociology, or (ii) in levels of education like secondary, elementary, pre-primary, or (iii) in pedagogy of school subject like methods of teaching, e.g., History or Physics, etc., or (iv) in areas like evaluation, guidance, administration or modes of Teacher Education—Face-to-Face, Distance Education and so on. If the idea of a specialization-based M.Ed. be accepted in principle, details can be worked out.

The M.Ed. should also include teacher education related practical work including practice-teaching to student-teachers in teacher education institutions.

In-Service

With the passage of time, the teacher educator becomes routinised, status quoist and conservative. He/she goes on repeating and replicating year after year – even the same anecdotes, same quotes, and same jokes. Most cease to reflect, read, write or research.

Much more can be done to improve the teacher educator's competence, knowledge and expertise by in-service programmes conducted through multifarious strategies, including ODL.

Distance Education

Distance Education may be used to provide in each specialization area the following instructional materials in different forms, periodically and regularly:

- a) Innovations: Innovative practices and success stories at home and abroad may be brought to teacher educators' notice. Discussions may be held as to how they can be introduced in practice by them.
- b) Information about articles, journals, books, monographs in their relevant areas.
- c) Skill in communication strategies
- d) Learning relationships
- e) Skills of guidance and counselling
- f) Dissemination of research findings relevant to teacher education with suggestions about how they can be adopted into the system.

Research

Search for knowledge about *teaching how to teach* and teaching (the two are *per se* different) will perennially provide themes for research in an institution which is involved in teacher education programmes. Besides, the teacher educator will do well to get into action-based research to continue research endeavour with real world involvement and action. The outcome would be generation of knowledge which would improve the standard of teacher education, the quality of life of the individuals and the society, of which education is a sub-system.

Self/Peer Learning

Like all professionals, some teacher educators grow with experience. Some develop specialization by self-steady or experience of teaching, publication or research in the area of their interest. Most academics, with the passage of time, become specialists in some aspect of their discipline. Unfortunately, in teacher-education, we do not develop such specialized interests. As research guides, we are ready to supervise a doctoral student in any area!

Academics go on learning by interaction with peers. In educational institutions though prolific seminars/workshops are organized but unfortunately those in which issues are analysed in depth are rare. The Academic Staff Colleges in our Universities have made only small dent, by way of orientation or refresher courses.

Institutional Culture

Teacher education succeeds in a healthy humane ambience. An effective teacher education is an individualized and a personalized programme. Each student teacher has different educational and socio-economic background, understandings and potentialities. Therefore, a teacher educator has to have the values of respect for an individual, patience, compassion, tolerance, and readiness to work hard for individuals. How he relates with his students makes all the difference in creating a healthy teaching-learning culture. A teacher educator should be easily approachable and be available as and when a student needs or wants and vice versa. This necessitates full day physical presence of both the teachers and the students in the institution. This necessitates habits of regularity, dissatisfaction with mediocrity, non-acceptance of slipshod assignments and urge for depth, seriousness and integrity.

In distance education also, regular contact with the target learner and follow-up monitoring is essential. As the Distance Education learner is studying in his own time, over and above his usual daily personal and professional life, he has to goad himself and find energy and motivation to sit down to his learning. He/she, therefore, needs to have the facility of easy interaction with the Distance Education counsellors, teachers, material writers, evaluators, supervisors and student services administrators. These facilities and contacts should be available to the learner as and when he needs them.

Self-realisation

The overall pervading impact of long hours of sustained work in itself builds capacity in the teacher educator and the teacher. Further, self-actualization and self-realisation lead to conscientious performance of duties. Spiritual angle to his/her evolution is an added and highly important ingredient. The outcome is awareness and devotion to his/her work, sensitivity and warmth of interpersonal feelings, humanness and congenial relationship with all he/she comes in contact with—his discipline, students, colleagues, peers, community, society, humanity. All these qualities of hand, mind, heart and spirit make him/her a worthy teacher-educator.

Book Review

Furlong, John. (2013). *Education – An anatomy of the discipline: Rescuing the university project?* Abingdon: Routledge. ISBN 978-0-415-52006-5. xvi+232 pages. INR 375 [Paperback].

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John Furlong, Emeritus Professor and former Director of the Department of Education, University of Oxford, is well known for his writings on various aspects of teacher education policy and practice in the United Kingdom (UK). The role of universities in the professional preparation of teachers is one of his most recent research interests. Related to this interest, his work *Education – An anatomy of the discipline*, makes sense of the development of the discipline of education in relation to its interfaces with or location in university spaces in UK. Though written in the context of UK, this book offers insights in the recent developments and debates in the domain of education – in particular teacher education policy – in India. It brings forth that these debates are not new and are not only shaped by the status of education as an academic discipline in university, but also by the changing meaning of university or higher education itself.

The book is organised in four sections. In the *first section*, comprising of three chapters, Furlong traces the tensions in the identity or meaning of education as a discipline and its location in the university system. He does so by mapping historically how the “field has been profoundly shaped by its engagement with professional preparation” (p. 4) which was by and large located outside the university system till late nineteenth century. Touching upon the major policy turns, the chapters build a narrative account of the 100 years from late nineteenth century to the time when teacher education came to be subsumed under universities (from colleges and institutes of education) in entirety. In this struggle, the discipline grappled with politics around what constitutes educational knowledge—marked by changing views on distinctions between educational practitioners and university scholars. However, “this struggle to become a part of the university system proper”, has been a “pyrrhic victory” (p. 41). As education became its part, the autonomy of the university system was thrown into doubts with increasing state control over or interference in its activities in general, and teacher education and education research in particular.

The *second section* of the book sketches a picture of the status of UK’s university education departments in the present times around the following questions: Who are education academics today and what are their backgrounds? What kind of institutions are they located in? How are the hierarchies amongst them structured? What are they teaching and researching? (p. 45). A wide array of national statistical and interview-based data is used to develop a coherent picture of the trends and concerns in these

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regards. The section brings forth that, on the one hand, education has made a significant progress in the university system (in terms of quality of teaching and research-comparable with the other social sciences – and high intellectual activity). On the other hand, there are several internal flaws in these advancements. These range from highly differentiated institutions, dependency on ‘technical rationalist teaching’, and dominance of ‘applied research’ (p. 109).

Section three of the book concerns why education is the way it is in the UK today. Furlong brings the reader’s attention to a larger political field in which the universities in the UK function today – whereby the loss of autonomy of the universities is by and large accepted. Globalisation, refracted through the neo-liberal policies in higher education, has changed the character of the universities in fundamental ways. The universities are now bound to be enterprise-like or entrepreneurial in the wake of these policies – they are ‘cash-strapped’ and thus need to pursue funding, respond to and take advantage of changing markets in teaching and research (p. 123). Therefore, their control over their own teaching and research activities, and thereby staffing, is diminishing day by day. Education departments are located in this environment, and by the very nature of their contested space in the universities and an already high control of government, they are implicated much more by these developments. Furlong argues that this has resulted in ‘devaluing and deprofessionalising’ (p. 122) of those involved in initial teacher education and has had a similar impact on educational research which has become increasingly market-driven (p. 161).

The final section of the book brings together the various currents identified in the preceding sections to re-envision ‘the university project’ and thereby setting the grounds for re-imagining the project of education as located therein. Furlong highlights that whatever may be the characterisation of the universities in the neo-liberal times, these institutions must hold on to the fundamental enlightenment ideal that they were set-out to pursue at their inception – ‘the maximisation of reason’ (p. 180). In this context, he develops a case for re-tooling education as a whole – for professional education, mobilisation of knowledge and research – and asserts the increasing need for being aware of ‘what the purpose of university-based study of education is’ (p. 200).

The subject matter and the analysis of the book are fairly relevant in the Indian context. While the work offers a broad perspective for analysing education policy and studies in India, there are several nuanced aspects where parallels with the UK may be difficult to draw. Nonetheless, this text by Furlong will make an engaging reading for those interested in making-sense of the current state of affairs in education as an academic discipline, and in thinking about the domain in relation to the larger politics of and crises in higher education. The book, with low-priced Indian edition, is highly recommended to all teacher educators in India who are grappled with sustaining and reforming teacher education with the new Regulations in place in 2014.

Mathew, R., Geetha, T. and Chennat, S. (Eds.) (2014). *E-learning in Teacher Education: Experiences and Emerging Issues*. Delhi: University of Delhi. 211 pages. [paperback].

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In the year 2007, the Indian Association of Teacher Education (IATE), University of Delhi in collaboration with Commonwealth of Learning (COL), Vancouver and Central Institute of Education (CIE) organised its 40th Annual Conference. The theme of the three day International Workshop cum Conference was *E-learning in Teacher Education*. Out of the 71 papers presented at the conference, 6 were in plenary session and 65 in parallel sessions. In 2014 selected papers from the conference were published in the book *E-learning in Teacher Education Experiences and Emerging Issues*. The book is edited by Prof. Rama Mathew, Dr. T. Geetha and Dr. Sailaja Chennat. It is published by the Department of Education, University of Delhi.

The book is a compilation of seventeen essays, each one capturing some dimension of e-learning. The focus of these essays is on highlighting the experiences of learners, teachers and teacher educators in the field of e-learning. As the contributors to the book come from diverse fields of education it paints a multidisciplinary picture of e-learning. The diversity of experiences shared by contributors represents different parts of the world which provides a global picture of e-learning.

The first essay of the book is the Key Note Address of G. Dhanarajan, given at the conference. Dhanarajan has emphasised on the significance of a teacher in a society with constantly growing expectations. The role of teachers in improving the schools and quality of education is highlighted by him. It is therefore crucial that teachers are exposed to modern technologies and they are enabled to create e-learning environments. Dhanaraj also made it clear that technology is not a substitute for a teacher. E-learning is a means to reaching larger audience in an effective manner. In the end he reflected upon the challenges created by the modern technologies. He writes that modern technologies change things and this change is both beneficial and harmful. Therefore there is a need to find out ways of minimising the harm.

The book is mainly divided into four sections. The first section is titled *E-Learning for Capacity Building and Teacher Development*. This section has five essays. Each one of the five essays discusses e-learning in a specific context. Through examples from Africa, India, Malaysia, Sri Lanka and United Kingdom these essays discuss the ways in which e-learning can support capacity building of teachers.

The second section titled *E-Learning a Psychological Perspective*, critically analyses the ways in which e-learning help in construction of knowledge. This section contains four papers. The role of e-learning in creating an environment for the learners which is

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conducive to meaningful learning, the nature of e-learning in a constructivist paradigm and the implications for teacher education are the aspects which are discussed in this section. The essay by Khagendra Kumar discusses the possibilities a developing organic inter-linkages between schools and teacher education institutions using ICT supported models.

The third section is titled *Getting to Grips: Reflective Account of E-Learning*. This section has three papers. These papers discuss the real life experiences of learners, teachers and teacher educators, of using e-learning resources in their classrooms. The significance of e-learning programmes in teaching-learning processes is highlighted in this section.

The fourth and last section of the book is titled *E-Learning: Outcomes from Field Research*. This section has four articles which share the field researches done in the area of e-learning. This section highlights specific e-learning strategies that worked and those which did not work in the field. The inferences are based on empirical research data.

The book **E-learning in Teacher Education Experiences and Emerging Issues** gives a critical analysis of e-learning in the field of teacher education. The book does not over sell the role of e-learning programmes. In a balanced manner it shows the ways in which e-learning can enrich the teaching-learning processes. The examples from different parts of the world give a glimpse of the global scenario with respect to e-learning. The real life experiences of learners, teachers and teacher educators provide a balanced perspective on the effectiveness of e-learning in teaching-learning processes. The book also discusses challenges emerging from the over- emphasis on e-learning classrooms. The need for minimising the harmful effects of technology on learners has also been spelled out

The book makes a strong case that though technology has proven to be very effective in widening the reach of education but it can never be used as a substitute to the teacher. Considering the effectiveness of e-learning programmes it is crucial that teachers are exposed to and trained in using modern technologies and developing appropriate programmes to suit the context specific needs of their classrooms. Overall the book provides a comprehensive introduction to the diverse aspects of e-learning in teacher education. This book would be able to generate a wider discussion on the benefits of e-learning resources and ways of addressing the harmful effects of the same. Therefore it would be a good resource for learners, school teachers, research scholars and teacher educators who are interested in e-learning.