THE ROLE OF VALUE ADDED MEASURES IN CONTINUING PROFESSIONAL LEARNING OF PROSPECTIVE TEACHERS

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ABSTRACT

Teaching perhaps is the only profession which accommodates new and unproven, places at the same situation as veteran and provides no organized support. Academic progress of students depends heavily on talent and skills of the teacher leading their classroom. Teaching may be described as a commitment to "care and welfare of pupils" or even as the "Journey through the Heart". Teachers are now considered as "Social Reformers". Processes of becoming a good and effective teacher involve varying degrees of personal and professional growth. Professional learning should always address identified gaps in student achievement. Teacher professional learning can focus on real issues and avoid providing information that may not benefit the participants. Our work in educational institutions is about bridging the knowledge gap between educators and their practice. There is need to identify whether student perceptions, classroom observations and assessments of teachers' pedagogical content knowledge are aligned with value-added measures to find the areas where teachers need to become more effective. The goal of this paper is to use classroom observations to help teachers improve student outcomes. Teaching is a complex task and value-added measures can captures the impact of differences in teacher effectiveness.

KEYWORDS: Professional Learning, Value Added Measures, Prospective Teachers, Effective, Classroom Practice, Academic Progress, Pedagogical Knowledge, Contents

INTRODUCTION

Figure 1

Teaching perhaps is the only profession which accommodates new and unproven, places at the same situation as veteran and provides no organized support. Repress and Luffi (2006) narrated that in our classrooms, students are rushed through a basic curriculum designed for students with homogeneous learning styles without consideration of atypical

learning styles and this leads to boredom, underachievement and discipline problems. Mitchell et al. (2009) indicated that teachers afresh or with experience less than five years are classified as novices. The stark reality of the situation is that when beginner teachers are left to 'sink or swim', the costs to schools and societies are tremendous (David, 2000). It has been criticized for not providing teachers with sufficient time, activities and content necessary for increasing their knowledge and fostering meaningful changes in classroom practice (Garet et al. 2001). Darling-Hammond (2000) explained that the expectations society places on teachers to educate diverse groups of students to higher standards, require teachers to undergo thorough and extensive training in being an effective teacher. Academic progress of students depends heavily on talent and skills of the teacher leading their classroom. A number of studies have shown that variations in student achievement can be linked to differences in the effectiveness of teachers (Rivkinet al. 2005).

Professional development enables teachers to continuously acquire, expand and extend knowledge and to develop skills and abilities to ensure quality and successful collaboration with colleagues and school management, and good relations with parents and local communities. Long (2009) mentioned that attendance at professional development experiences does not guarantee that there will be a noticeable impact on the practice of the teachers involved. He contends that professional development is often fragmented and lacking sequence, it rarely enhances the learning of teachers or their students. He suggests that professional learning refers to the development of teachers through collaborative, practical and professional processes and acknowledges learners think differently with varying rates and levels of acceptance. In making distinctions between professional development and professional learning, the professional learning is more concerned with and focused upon pedagogy and teacher beliefs as to how children learn.
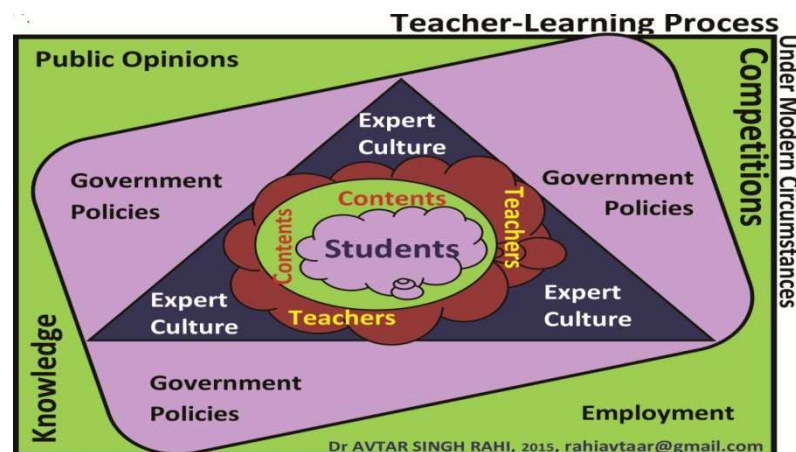
THEORETICAL FRAMEWORK

Figure 2

Educational Institutions operate by "Expert Culture", i.e. Management, Principals, Administrators, other influential persons and generally teachers have no say and they have to forgo their knowledge and skills. Therefore, teachers to work as 'just teachers', unaware of their potential to develop professionally and this may force them to lack enthusiasm and initiative for doing more than what is mandated. The conventional view of the teacher as an expert and transmitting knowledge is gradually becoming redundant. If teaching-learning process is to grow, teaching in different forms and in varied contexts is necessary.

The knowledge, applied knowledge and understanding can never be permanent but is actively constructed by learners as they shape and build mental frameworks to make sense of their environment (Cross, 1998). The concept may be understood that human potential is a dynamic process where the human can continually exceeds him or her in every possible way. Professional development is a special challenge for novice teachers who may focus more on coping with a new role, and developing and consolidating their instructional skills than on growth and new approaches (Mitchell et al. 2009).

In recent years there has been an increase in the quality of performance. Yet there always remains scope for more refined and intelligent measures those can improve the learning outcomes of students because Teachers differ dramatically in their performance, with large consequences for students. Teaching is a complex task and value-added measures can captures the impact of differences in teacher effectiveness. Surely value-added information can predicts more about what students will learn from the teachers to which they are assigned than any other source of information. Darling-Hammond (2000) asserts that teachers need to be prepared to present subject matter in a variety of flexible and attractive ways suitable for handling an increasingly diversified group of learners with diversified learning needs and backgrounds.

Teaching may be described as a commitment to "care and welfare of pupils" or even as the "Journey through the Heart". Values in value added measures are constructed over time, through social interaction in the home, school, community and wider social setting. Values are carried by people but they can change, be extended and elaborated on through life experience. Processes of becoming a good and effective teacher involve varying degrees of personal and professional growth. The transitions from university/college student to full-fledged teacher through teacher education programme can broaden the stock of values as they encounter new roles, new professional contacts and different institutional expectations. Turbulence may exist for many newly qualified teachers when they found that values they drive are idealistic and theoretical and are different with the values of the schools in which they gain employment. This transition can provide a variety of value tensions that emerging teachers encounter once into the 'reality shock' (Veenman, 1984) of the classroom.

LITERATURE SERACH

A substantial body of research has established that teachers are a valuable component to student success, and better teachers produce better results from their students (Goldhaber and Theobald, 2011; Rivkin et al. 2005; Aaronson et al. 2007). High quality teaching is always acknowledged to be the most important factor influencing student achievements (Kyriakides and Creemers, 2008; Rivkin et al. 2005; Rowan et al. 2002). It is general acceptance that anyone who has sufficient knowledge of a subject can teach it well (Darling-Hammond, 2000). Characteristic mostly examined is the teacher's educational background, such as completion of educational degree (Early et al. 2008; Bogard et al. 2008) and the marks obtained but the type and extent of coursework completed, mentoring, or fieldwork experience prior to teaching is generally ignored. The workplace environment sometimes also does not allow to put into practice the skills and knowledge gained in teacher preparation (Vu, et al. 2008; Howes et al. 2003). Teacher qualifications are weak predictors of student achievement (Goldhaber and Brewer, 2000; Miller et al. 1996; Ehrenberg and Brewer, 1994; Hanushek, 1997) as evidence does not apply more broadly to other academic subjects or grade levels except science and mathematics (Wayne and Youngs, 2003; Goldhaber and Brewer, 2000). Roza and Miller (2009) argue that states should end the practice of providing automatic pay increases to teachers for earning a master's degree and instead reward effectiveness in the classroom. Many

empirical studies found a positive effect of teacher salary on student achievement (Hanushek, 1997; Card and Krueger, 1992) while many other studies have found a negative effect between teachers' salaries and student achievement (Borland and Howsen, 1992; Kurth, 1987). Research studies have found a positive relationship between years of experience of a teacher and student achievement (Card and Krueger, 1992; Ehrenberg and Brewer, 1994; Hanushek, 1997). Research indicates that teacher experience contributes to student learning in first few years in the classroom, but additional experience does not make a difference after that (Loeb and Beteille, 2008; Rivkin et al. 2005; Rockoff, 2004; Greenwald et al. 1996). Garet et al. (2001), Cohen and Hill (2000) and Desimone et al. (2002) have tried to understand how students learn and the specific difficulties they may encounter. Having teachers of the same ethnic background as their students may have a positive effect on student achievement, though only in certain subjects and that too if a student can see a role model (Strong, 2011). Studies by Ehrenberg and Brewer (1994) have found a slightly positive to no relationship between the teacher-student match on gender.

Nye et al. (2004) have quantified the influence an effective teacher has on student achievement that is relatively independent of anything else that occurs in the school and also concluded that the single most influential component upon school effectiveness is the individual teachers within a school. If 'Teachers Matter' and also their dramatic results, what should be done to generalize this? Hawley and Valli (1999) assert that knowledge and skills of education can be increased substantially through collegial opportunities to solve authentic problems that create the gap between student performance and expectations. Kwakman (2003) recommends that for changes to occur in teaching practice, a teachers' professional development needs to be facilitated by creating favourable learning environments in which the teachers can be responsible for their own learning. Teachers to work alone in their classroom with minimal interaction with their colleagues but their professional development experiences come in the form of workshops and courses that are delivered away from the classroom and school by outside experts, and received by teachers as individuals and perhaps all teachers were not able to integrate what they had learned into their practice in the lack of proper support to apply the new knowledge and skills in their classrooms (Hargreaves, 2000). Meeting the demands of the teaching profession requires tremendous will, ability, and preparation. It also requires continuous learning and support in the development of teachers' professional knowledge, skills and attitudes (Guskey, 2002). Prospective teachers education, initial training and induction for beginning teachers, and on-going professional development during career help update knowledge, deepen understanding and advance skills to become an expert practitioners. School is the most suitable place for teachers to develop professionally as new teaching competencies can only be acquired in practice (Kwakman, 2003).

Changes in the government policies, particularly the policies which are related to the education system have an immense impact on the teaching profession and the professional development of the teachers (Cardno, 2005). Darling-Hammond (2006) explains that teacher education programs should encourage teaching practices those develop extraordinary personal and professional skills needed to teach students with a wide range of learning needs. Study conducted by Giebelhaus and Bowman (2002) found that student teachers who were supervised by trained mentor teachers, developed more complete and effective planning, more effective classroom instruction and greater reflectivity on practice. Mentor teachers need to be introduced to the new models of teaching and learning from teacher centered and curriculum-based to student centered activities (Grove et al. 2004). Teacher education has been found to contribute to change in teacher beliefs about teaching and learning and to enable prospective teachers to develop teaching repertoires (Doppen, 2007). Zientek (2007) argued that program components are crucial in determining the impact teacher training makes on

producing quality teachers. A study by Justice et al. (2003) found that inadequate training and lack of a student teaching component, negatively affected a program's contribution to teaching effectiveness. Desimone (2009) asserts that professional development also impacts on the teachers' ability to decide on and implement valued changes in teaching and leadership behaviour so that they can educate their students more effectively.

According to Strong (2011), there is no exact definition of what a quality teacher actually must have or be in order to be designated that, instead, there are many types of characteristics that might make a teacher highly qualified. Students who learn more in school tend to complete more schooling, have greater earnings potential, and lead healthier lives. Feiman-Nemser (2001) observed that prospective teachers acquire views and beliefs about teaching during schooling which helps in determining the kind of teachers they become. Poulou (2005) asserts that prospective teachers need to become expert themselves and be able to conceptualize how expertise is developed. Mishra & Koehler (2006) stressed the need of deep subject knowledge, pedagogical content knowledge and the knowledge of new technologies applied to subject teaching in the digital age. Biesta (2011) asks for different approaches to defining quality in education (e.g. outcome-oriented or process-oriented). Hatano & Oura (2003) describes that the system rationale for encouraging teacher learning is that it enables teachers, as adaptive experts, to be as effective as possible in supporting the learning of students in specific contexts. (Putnam and Borko, 2000; Dam and Blom, 2006) see the teacher as a reflective practitioner. Accordingly, there is the shift from a *technical-rational-top-down* approach, towards a more *cultural-individual interactive* approach. According to Geijsel et al. (2009) the conditions for teacher learning include the organizational factors for linking teacher and school development, and psychological factors as a mediating influence. A study by Taylor and Tyler (2012) on the value added observation-based evaluations in Cincinnati, have led to improvements in teacher effectiveness. Studies in India and Kenya are evidence that value-added measures can be used productively as incentives.

Helmer et al. (2011), Garet et al. (2001), Wood and Stanulis (2009) asserts that reform-type professional development is more effective in changing teaching practice than traditional form. Research has demonstrated that value added modeling can be a meaningful measure of teacher effects on student achievement (Jacob and Lefgren, 2008). The Value Added Measures recognize different levels of capability of students and their different environments, and these factors can influence student's rate of educational progress. Sanders (2000) describes it, if education is seen not as stair steps but as a ramp – upon which students in the same grade will be at different points – school effectiveness can influence the speed at which students progress up that 'ramp'.

NEED AND IMPORTANCE

Pianta and Hadden (2008), Lobman and Ryan (2006) stress the importance of moving beyond a reliance on early-childhood teacher credentials or other preparation program outcomes to create higher quality teachers. They argue that the substance and content of the training program play the largest role in improving results for children. As with K-12 teacher preparation programs, experts find there is insufficient research on the relationship between preparation programs for early-childhood education teachers and student performance.

Value-added is a term used in Economics to describe the additional value a business generates or contributes to a product or service. In the same meaning it may be used in Education to describe the additional value schools can bring to the learning outcomes of their students. Value-added measures do not provide any information to explain teachers' performance. No single teacher accounts for all of a student's learning. Because value-added measures adjust for the

characteristics of students in a given classroom, they are less biased measures of teacher performance than are unadjusted test score measures. Value-added measures adequately adjust for differences in the background characteristics of students in each teacher's classroom.

Professional learning does not necessarily link development to organizational interests but is directed to the individual's personal growth for use in wider fields. Professional learning should always address identified gaps in student achievement. The content of professional learning should center on subject matter, pedagogical weaknesses within the organization, measurement of student performance, and inquiry regarding professional questions that are relevant to the setting in which the professional development is delivered. Teacher professional learning can focus on real issues and avoid providing information that may not benefit the participants. The concept of professional development is broader than career development which is defined as the growth that occurs as the teacher moves through professional career cycle.

PURPOSE

Improved teacher practice can improve dramatically student's learning. Our work in educational institutions is about bridging the knowledge gap between educators and their practice. How can new teachers demonstrate the skills, knowledge, and capacity required for competent practice from the outset and for accomplished practice over time? What forms of preparation do prospective teachers need for success in today's classroom? What current practices do we need to reform, transform, or eliminate? With what do we replace them? How can compensation systems that support professional pay and professional learning help teachers improve their practice in meaningful ways? Educative mentoring relies on developing an explicit vision of quality teaching and of teacher learning where mentors interact with novice teachers in ways that help them learn in and from their practice (Feimann-Nemser, 2001).

RESEARCH AIMS

- **T**o investigate the perceptions held by prospective teachers of the impact of professional learning on their teaching practice;

- To examine the factors that influenced teachers' perceptions of effective professional learning;

- To examine the challenges or difficulties experienced in relation to teachers' professional learning.

HYPOTHESIS

- **W**hatever Prospective Teachers learn during B.Ed. can make them Effective in Teaching?

- Students' feedback has no effect in humanizing Teaching and its Effectiveness?

- Actions and Conduct of Counselors and Mentor Teachers have no effect on Prospective Teachers' Perceptions and Professional Learning?

METHODOLOGY

Parents want their children to build social skills and to acquire a love of learning. Also, our diverse society needs children who are tolerant. There is need to identify whether student perceptions, classroom observations and assessments of teachers' pedagogical content knowledge are aligned with value-added measures to find the areas where teachers need to become more effective. To avoid the shadow of effects of teachers with classroom characteristics, random sampling was

done. Samples were collected on first come basis from different colleges of education. Classroom observation is the most common form of evaluation. It can help teachers improve student outcomes. Our goal is to test several different approaches like Care, Control, Clarification, Challenge, Captivate, Confer, Consolidate and some other Miscellaneous Qualities to identifying effective teaching practices in the classroom to measure Teacher level Value Added and Student Perceptions . For each of the observation traits, a two point scale "Agree or Not Agree" was used. This two point scale measures the *reliability* with which teacher/researcher can characterize persistent aspects of each teacher's practice. Prospective teachers are mature enough to decide, so to avoid vagueness the third point "Don't Know" was not used. Reliability is also important because without it classroom observations will paint an inaccurate portrait of teachers' practice. Responses were then converted into percentages and using computer, tables and charts were derived to facilitate the study.

ANALYSIS

Every parent wants their children to build social skills and to acquire a love of learning. The only way to be confident is the feedback by students that can direct teachers to right direction. Feedback and Classroom observations can not only help identify effective teaching, but also points towards the areas need improvement.
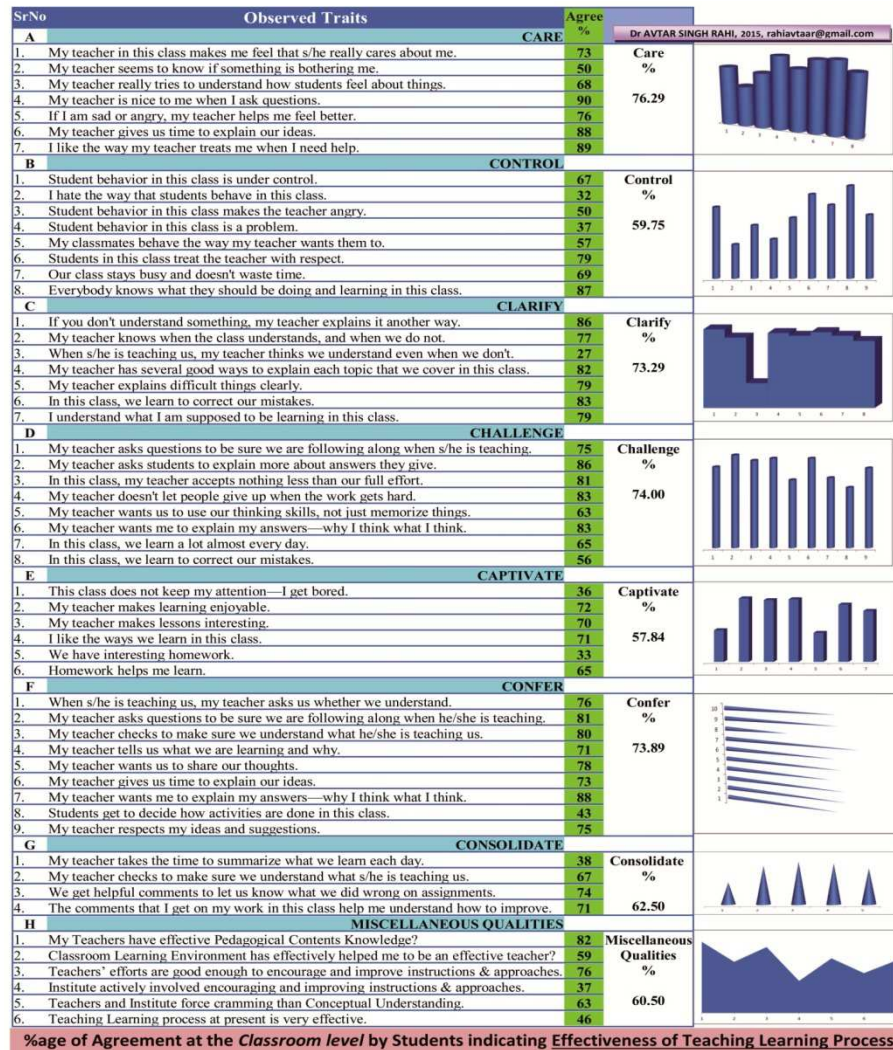
SrNo	Observed Traits	Agree %		
A	**CARE**		Care %	Dr AVTAR SINGH RAHI, 2015, rahiavtaar@gmail.com
1.	My teacher in this class makes me feel that s/he really cares about me.	73		
2.	My teacher seems to know if something is bothering me.	50	76.29	
3.	My teacher really tries to understand how students feel about things.	68		
4.	My teacher is nice to me when I ask questions.	90		
5.	If I am sad or angry, my teacher helps me feel better.	76		
6.	My teacher gives us time to explain our ideas.	88		
7.	I like the way my teacher treats me when I need help.	89		
B	**CONTROL**		Control %	
1.	Student behavior in this class is under control.	67		
2.	I hate the way that students behave in this class.	32	59.75	
3.	Student behavior in this class makes the teacher angry.	50		
4.	Student behavior in this class is a problem.	37		
5.	My classmates behave the way my teacher wants them to.	57		
6.	Students in this class treat the teacher with respect.	79		
7.	Our class stays busy and doesn't waste time.	69		
8.	Everybody knows what they should be doing and learning in this class.	87		
C	**CLARIFY**		Clarify %	
1.	If you don't understand something, my teacher explains it another way.	86		
2.	My teacher knows when the class understands, and when we do not.	77	73.29	
3.	When s/he is teaching us, my teacher thinks we understand even when we don't.	27		
4.	My teacher has several good ways to explain each topic that we cover in this class.	82		
5.	My teacher explains difficult things clearly.	79		
6.	In this class, we learn to correct our mistakes.	83		
7.	I understand what I am supposed to be learning in this class.	79		
D	**CHALLENGE**		Challenge %	
1.	My teacher asks questions to be sure we are following along when s/he is teaching.	75		
2.	My teacher asks students to explain more about answers they give.	86	74.00	
3.	In this class, my teacher accepts nothing less than our full effort.	81		
4.	My teacher doesn't let people give up when the work gets hard.	83		
5.	My teacher wants us to use our thinking skills, not just memorize things.	63		
6.	My teacher wants me to explain my answers—why I think what I think.	83		
7.	In this class, we learn a lot almost every day.	65		
8.	In this class, we learn to correct our mistakes.	56		
E	**CAPTIVATE**		Captivate %	
1.	This class does not keep my attention—I get bored.	36		
2.	My teacher makes learning enjoyable.	72	57.84	
3.	My teacher makes lessons interesting.	70		
4.	I like the ways we learn in this class.	71		
5.	We have interesting homework.	33		
6.	Homework helps me learn.	65		
F	**CONFER**		Confer %	
1.	When s/he is teaching us, my teacher asks us whether we understand.	76		
2.	My teacher asks questions to be sure we are following along when he/she is teaching.	81	73.89	
3.	My teacher checks to make sure we understand what he/she is teaching us.	80		
4.	My teacher tells us what we are learning and why.	71		
5.	My teacher wants us to share our thoughts.	78		
6.	My teacher gives us time to explain our ideas.	73		
7.	My teacher wants me to explain my answers—why I think what I think.	88		
8.	Students get to decide how activities are done in this class.	43		
9.	My teacher respects my ideas and suggestions.	75		
G	**CONSOLIDATE**		Consolidate %	
1.	My teacher takes the time to summarize what we learn each day.	38		
2.	My teacher checks to make sure we understand what s/he is teaching us.	67	62.50	
3.	We get helpful comments to let us know what we did wrong on assignments.	74		
4.	The comments that I get on my work in this class help me understand how to improve.	71		
H	**MISCELLANEOUS QUALITIES**		Miscellaneous Qualities %	
1.	My Teachers have effective Pedagogical Contents Knowledge?	82		
2.	Classroom Learning Environment has effectively helped me to be an effective teacher?	59	60.50	
3.	Teachers' efforts are good enough to encourage and improve instructions & approaches.	76		
4.	Institute actively involved encouraging and improving instructions & approaches.	37		
5.	Teachers and Institute force cramming than Conceptual Understanding.	63		
6.	Teaching Learning process at present is very effective.	46		

%age of Agreement at the *Classroom level* by Students indicating Effectiveness of Teaching Learning Process

Figure 3

RESULTS AND DISCUSSIONS

Out of the eight observed traits, two points; the class does not keep my attention and uninterested homework has forced 'Captivate' to the lowest place at 57.84. A student can learn if the class is interesting and homework is enjoyable. If students are getting bored, it is pointing towards outdated curriculum and unsharpened extra-co-curricular activities. Next comes 'Control' at 59.75 and it is the most important trait that teachers should enjoy as it catalyses the transfer of knowledge, the foremost characteristic of teaching-learning process. Environment plays a very conspicuous role in acquiring understanding and grasping of information as it provides the direction and it is directed by the behavior of the students in any class. If the students are in learning mode only then knowledge can be transferred from teacher to students. Miscellaneous qualities at 60.5 like Pedagogical Contents Knowledge, Classroom Learning Environment, Teachers and Institute role are also the very cared factors to stimulate teaching-learning process which are generally neglected. Institutions role is very much influencing in creating the enjoyable, careful and learning environment as institutes only can provide the required infrastructure and instructional resources.

Whatever lesson or information is discussed by the teacher in class is treated as scattered randomly in various directions which should be recapitulated and summarized to students for easy grasping by their tender and innocent nature. The highest score 76.29 is with 'Care' which is the primary and to be characteristic of every teacher. Every student needs individual care to deliver its best outcome. It is good practice to encourage students to ask questions and also to listen carefully and providing satisfied answers. Although because of heavy classes in India sometimes it becomes difficult to provide individual attention and it lowers down also the attitude and patience. Challenge at 74, Confer at 73.89 and Clarify at 73.29 also explain different phenomenon with students role in deciding the day to day and long range planning activities in educational institutes. Prospective teachers are not teachers but they need to learn the various activities available or to be made available in their future institutes. They should be actively involved in all the activities which they otherwise will perform as passive participants. Students learn by seeing and whatever they will see in their teachers' behavior that will become part of their working nature and attitude. Students who learn more in school tend to complete more schooling, have greater earnings potential, and lead healthier lives. Feiman-Nemser (2001) observed that prospective teachers acquire views and beliefs about teaching during schooling which helps in determining the kind of teachers they become. An effective teacher can produce students with effective outcome.

The following chart may help any individual to decide its effectiveness. Although it is almost difficult to be an Ideal or Perfect Teacher but it is not difficult to be an Effective Teacher. If the Radar in this chart acquires round shape, the concerned teacher may be declared as a Perfect Teacher. The chart can explain the areas where improvement is needed. Only the modified behavior can catalyze the improvement. Our diverse society needs children who are tolerant and be able to build social skills and students learn more from their teachers. Feiman-Nemser (2001) observed that prospective teachers acquire views and beliefs about teaching during schooling which helps in determining the kind of teachers they become. For gaining insight into teaching learning process, diagnosing strengths and weaknesses and right development in right direction, New and effective tools are needed. It was the goal of this paper to provide right and correct information to convert teaching-learning into abundant, effective and productive so that student outcome may be improved. Teaching is always done by mind and not from brain. It is an emotional process and not mechanical thing. It is the achievement and not any type of test. Teaching is a culture and should be made free from the clutches of technology. Technology can enhance teaching but cannot replace teaching.
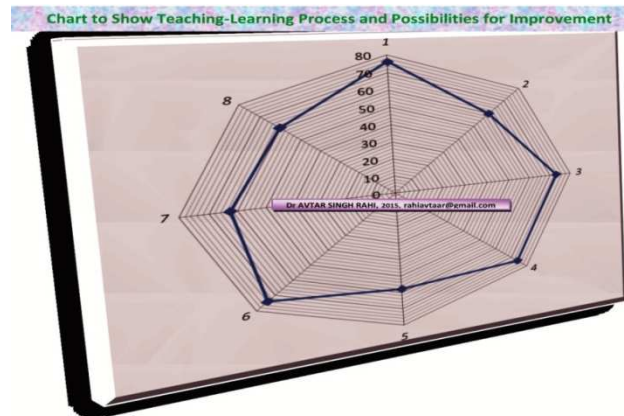
Figure 4

CONCLUSIONS

Value Added measures can support the evaluation of programs and practices, can contribute to human resource decisions, and can be used as incentives for improved performance. Value Added measures allow education leaders to assess the effectiveness of professional development. Value Added is sometimes better than other measures of effectiveness, just as other measures are sometimes superior to value added. It can be utilized for one teacher, one section, one institute or many or even to compare the traits of teachers or institutes. Value added analysis has been used to inform the professional learning of teachers, where class profiles are used to identify areas in which students require further skill development and this has in turn informed teacher development plans. This analysis could identify those teachers who are more effective in raising the performance of disadvantaged students. It could provide parents with a more accurate impression of how well an institute is improving the learning outcomes of its students.

Unlike India where there is no guiding philosophy for teacher education to unify the highly variegated patterns, Singapore shaped Teacher Education such that its requirements, practices, and career paths are as clearly defined as those in the established professions such as medicine and law. It is achieved through strict entry requirements, specifying high levels of academic as well as pedagogical knowledge, a well-monitored school practicum, plus a 'high-stakes' induction period where prospective teachers are carefully evaluated before they are declared ready to teach.

Rewards-and-punishment framework not only ignores the complexity and creativity of teaching but also overlooks the real purpose of teacher effectiveness. Emphasis should be to strengthen the knowledge, skills, dispositions, and classroom practices of professional educators. This can provide targeted support, assistance, and professional growth opportunities based on teachers' individual needs as well as the needs of their students, institutes and society. Teachers need clear and actionable feedback based on standards for teaching and student learning that attempt to capture a range of teaching behaviors. Teacher input can provide vital learning goals for the unique, contextualized circumstances of each particular classroom. Teachers' continuous engagement in learning, skill acquisition, and refinements to practice is essential for meeting student learning needs. Teachers must understand how their teaching practice influences student growth and learning. They need to use that understanding to adjust their practice in ways that allow them to become more effective.

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