Towards Standardizing Education: Specific Dispositions for Educators and their Impact on Teacher Efficacy

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Executive Summary

In today’s competitive environment, all professions need standardization and formulation of guidelines. This study develops a comprehensive model of professional characteristics of an Educator that would prepare them for high standards of professional achievements. A vital quality of the educators—‘teacher efficacy’—is studied for establishing an association with the various characteristics that would result in identification of specific dispositions.

A set of ten vital characteristics were identified which were sorted under three spheres of the educators’ work life. These characteristics were then defined appropriately for the teaching discipline. A questionnaire with sixty items validated for its reliability and validity was then used to collect data from 98 medical professors. The data was processed in statistical package for social sciences to analyse the existing characteristics. Partial Least Squares method was used to build a research model that show the inter-linkages between the characteristics and those with teacher efficacy with their strength of association.

A wide range of literature resulted in ten characteristics namely subject knowledge, teaching prowess, updating knowledge, collegiality, commitment, teacher-student relationship, empowerment, self development, remuneration and ethical conduct and a theoretical three-factor model of professional characteristics of educators. The level of the existing professional dispositions for the various demographics is calculated and discussed. A research model depicting the inter-linkages between the ten characteristics and teacher efficacy is developed which is analysed using the t-statistic through partial least squares method.

- Subject knowledge and updating knowledge leads to teaching prowess
- Collegiality, teacher-student relationship and empowerment lead to commitment
- Teaching prowess, commitment, self development, and remuneration correlates to teacher efficacy.
- Self development, commitment, and subject knowledge have a major impact on teacher efficacy.

These characteristics when enhanced will be found to have an enriched teacher efficacy with the educators in the medical stream. It is believed that enhancing of teacher efficacy would result in improving student motivation and student achievement which is the ultimate goal of any institution. It would also have a deep impact on students who will be trained and dealt with in a more proficient approach.

The paper limits itself in analysing the inter-linkages of characteristics and their impact on teacher efficacy for the stream of medical educators only. The model may be used for various educational streams. Further study is possible focusing on the impact of these characteristics on students, institution, and the community as a whole.
Standards require proper training, knowledge, and experience. They evolve constantly to suit the current environment. Changes and additions must be made constantly to ensure that they continue to meet their stated and intended purposes. Developing and attaining benchmarks or standards is increasingly becoming a need for any profession in today’s competitive environment. Teaching too requires standards that would encompass the principles and guidelines to be accepted worldwide. The National Board for Professional Teaching Standards - NBPTS, Washington DC, is leading the way in making teaching a profession that is dedicated to student learning, while upholding high standards for professional performance. This clearly emphasizes the need for preparation of educators for high standards of professional achievements.

This demands that educators should possess certain standard skills and competence that would enhance their performance and achievement in their profession. This paper aims at identifying the essential characteristics of an educator and links it with teacher efficacy which plays a vital role in student motivation and achievement which is the ultimate goal of any educational institution. This is based on a research study of 98 medical college educators by measuring their professional characteristics and teacher efficacy. The impact of specific characteristics on teacher efficacy is highlighted which are the essential characteristics to be focused upon to enrich their efficacy in teaching.

OBJECTIVES OF THE STUDY

Cogan (1953) defines a profession as a vocation whose practice is founded upon an understanding of the theoretical structure of some department of learning or science, and upon the abilities accompanying such understanding. The education profession serves complex goods that are concerned with the development of the student and the future of the society. An educator ought to possess certain characteristics so that he is professional in his occupation. These characteristics will definitely have an impact on the efficacy of the teacher which is defined as a teacher’s “judgment of his or her capabilities to bring about desired outcomes of student engagement and learning, even among those students who may be difficult or unmotivated” (Tschanne-Moran and Woolfolk Hoy, 2001). Teacher efficacy is related to a range of variables, such as student achievement and student motivation (Midgely, Feldlaufer and Eccles, 1989), teachers’ adoption of innovation, superintendents’ ratings of teacher competence, and teachers’ classroom management strategies (Ashton and Webb, 1986). Hence it was intended to study the effect of professional characteristics on teacher efficacy.

The increasing importance on standardizing education profession in a competitive environment calls for answering the following research questions with respect to the educator domain:

• What may be the professional characteristics that will enrich the educator’s personal and professional life?
• How can the identified professional characteristics fit into a theoretical model that depicts the various spheres involved in his work life?
• What may be the difference in the existing professional characteristics possessed by the educators among different demographic factors?
• Which of the characteristics has a major impact on teacher efficacy of the educator?

REVIEW OF LITERATURE

Professional educators should develop as lifelong learners, reflective thinkers, and ethical leaders exemplifying the ideals of literacy, scholarship, and social justice in a diverse and ever-changing world (Albee and Piveral, 2003). The National Council for Accreditation of Teacher Education (NCATE) (2001) has defined dispositions of a teacher as the values, commitments, and professional ethics that influence his behavior toward students, families, colleagues, and communities, and affect student learning, motivation, and development as well as the educator’s own professional growth.

A number of studies have been carried out in demarcating the characteristics of an educator. These studies spanned over seven decades, yet they consistently identified common and specific dispositions, such as: interest and enthusiasm in their subject and students, respect for all students, concern about student learning, fairness and sympathy toward students, and others that are associated with learner-centered teachers (Albee and Piveral, 2003).

The following literature illustrates the various studies and models developed by different authors for identifying the components of the teaching profession. As per Munoz et al., (2000) the characteristics of the ideal teacher are organized in four factors: teaching competency, teaching qualities, teacher’s appearance (includes...
teacher’s empathy and trust), and directiveness factor. Hargreaves and Fullan (2000) outlines four broad historical phases of the changing nature of teacher’s professionalism in his evolutionary model of professionalism, namely, (a) the pre-professional age, (b) the age of the autonomous professional, (c) the age of the collegial professional, and (d) the fourth professional age. In the pre-professional age, teaching was seen as managerially demanding but technically simple. In the age of the autonomous professional, the overriding characteristic of teaching was its individualism. During the age of the collegial professional, teachers develop common purpose, respond to rapid change, and develop stronger senses of teacher efficacy such that collegiality was given importance. In the fourth professional age, content of professional learning needs to become wider and deeper.

Analoui (1995) has developed a model of teaching styles from the Managerial Grid of Blake and Mouton based on ‘concern on task’ and the ‘concern on students’ as dimensions. He identified five teaching styles: hard-teacher, soft-teacher, rundown-teacher, effective-teacher and so-so-teacher. Effective learning is not likely to occur unless attention is paid to both the subject-matter (task) and the individual learner (people).

Phelps (2006) contends that to increase professionalism among teachers, practitioners must embrace “responsibility,” demonstrate “respect,” and practice “risk taking.” As per Squires (2004), functions of teaching are to be grouped as cognitive, affective, and executive.

All the above theories clearly indicate how the teaching process has been professionalized in various ways. Apart from formalizing the teaching profession as above, there are also studies which concentrate on specific aspects of professional educators.

Specific characteristics of the ‘teaching’ profession are extracted from a number of studies. Subject knowledge (Snell and Swanson, 2000; Wall, 1998), teaching prowess (Munoz, et al., 2000; Kouzes and Posner 1993), updating knowledge (Rose, 2002), collegiality (Snell and Swanson, 2000; Ingram 1997), commitment (Ashburn, 1989), teacher–student relationship (Talbot, 1997; Koutsoulis, 2003), remuneration (Hodson and Sullivan, 1995; Lavy, 2002), empowerment (Dondero, 1997), and self management (Cheung and Cheng, 1996) are the consolidated characteristics identified from the literature quoted here.

Derivation of Professional Characteristics: Studies Represented Through Illustrations

Subject knowledge was identified as the foremost characteristic of an educator through the literature survey. As referred by Wall (1998), professions are characterized by the need for and possession of particular kinds of knowledge, which are abstract and practical, massive in extent, difficult to master and lengthy to acquire. Subject knowledge converges in improvement of student basic core skill, student achievement, and designing a rich curriculum. It influences method of teaching, diagnosing the cause of students’ underperformance, and applying appropriate interventions (Snell, Swanson, 2000).

Teaching Prowess was the next characteristic which is basically transferring the subject knowledge effectively to the learners. Teaching prowess or the ability to teach includes pedagogy, communication skills, and expertise. Experiences of teaching shapes pedagogic content knowledge and subject knowledge which when combined with classroom management skills results in the credibility of the teacher (Kouzes and Posner 1993) and in more effective teaching.

Updating Knowledge is the characteristic that emphasizes life-long learning which is very essential for the teaching profession. The action research strategy helps the teacher to find where he/she is and what necessary update is required as Rose (2002) refers the need to investigate the ways in which schools work, the efficacy of teaching and the processes of learning getting greater than at anytime in the past. This may be achieved through classroom environment and through conferences, workshops, professional training, professional organization, and research (Black and Armstrong, 1995).

Collegiality frames a significant relationship of an educator in his profession. Collegial and Professional skills play an important role in the success of the beginning teacher. Ingram (1997) explains higher order needs, such as achievement and collaborative decision making that reflects collegiality. As per Snell and Swanson (2000), collaboration is characterized by a high degree of collegiality and co-operation, collaborative teachers value consensus, and compromise rather than competition.

Commitment is another important factor where an educator is committed to his work not only in terms of his profession but also with the individuals with whom he interacts. Commitment measures sense of pride and
ownership in the school, teacher engagement or persistence on the job (Ashburn, 1989). According to him, teachers tend to feel committed to their jobs when they are working in an environment that encourages support among co-workers, recognition for a job well done, and a stress on performance and accomplishment.

"Teacher-student relationship" is another significant characteristic of an educator as per the literature review. Student expectations (Koutsoulis, 2003); teacher credibility; mentor-protégé approach, and teacher influence (Talbot, 1997) are the main impacts of the teacher-student relationship. As the teacher is a powerful source of either satisfaction or frustration in students, the teacher’s enthusiasm, competence, and interpersonal and communication skills should be a role model that both cognitive and affective motives can co-habit side by side (Talbot, 1997).

Remuneration is an undisputable characteristic that educators have to give significance to. The assumption is that, given the complexity of the knowledge and skills required, relatively high levels of compensation are necessary to recruit and retain capable and motivated individuals (Hodson and Sullivan, 1995). Studies disclose that remuneration has striking effects on retaining capable individuals, increasing teacher quality, reducing teacher drop-outs and improved students’ outcomes (Lavy, 2002).

Empowerment is a process where teachers develop their competence to take charge of their own work and resolve their own problems. Empowerment has effectively resulted in teacher efficacy, job enrichment, and professional autonomy; student learning, effective schools (Dondero, 1997); professional judgment of content of curriculum, characterized as determined, self actualized and skilled to empower others (Snell and Swanson, 2000); rise in teacher attendance and teacher morale, student motivation, and improved communication with peers (White, 1992).

Self development is a self attributing characteristic that develops in one’s professional life. According to Cheung and Cheng (1996), self-management includes environmental analysis, planning and affiliating, developing and directing, implementing, evaluating and monitoring. A self managed teacher will be able to enhance his career by assuming leadership skills that enriches his personal mindset and professional life (Crowther, 1997).

Teacher efficacy beliefs influence teacher behaviour, which, in turn, influence student achievement within the classroom (Ross, 1994). Teacher efficacy is related to a range of variables.

Literature shows that various studies have dealt with the different professional features of teaching focusing a few at a time. A wholesome study that brings out the professional characteristics of an educator in total is lacking. This has instigated the researcher to take up the study to identify the professional characteristics of an educator and to link them with teacher efficacy which is directly related to student achievement and motivation.

THEORETICAL MODEL

The review has listed a number of professional characteristics which were consolidated into a set of nine main dispositions. Based on their impact on various facets associated with the educator, they were categorized into three schema as shown in Figure 1. They focus on the Profession, Others – with whom the educator connects and Self and are respectively termed as Skill, Concern for Others, and Concern for Self. The three factors—subject knowledge, teaching prowess, and updating knowledge are classified in Skill as these characteristics contribute in enhancing one’s professional skill, which is mainly teaching. This sphere—Skill— talks about the content knowledge that the educator possesses, his ability to transfer this knowledge to the learners through his expertise, the pedagogy he uses, and the communication skills that he possess and finally about the need for lifelong learning for a professional.

The second sphere consists of the factors — collegiality, commitment, and teacher-student relationship. Termed as ‘Concern for Others,’ it focuses on the educator’s characteristics that mainly relates with the

![Figure 1: Three Factor Theoretical Model of Professional Characteristics of an Educator](image-url)
people he connects and associates directly and indirectly. Collegiality deals in relationship with peers; commitment is concerned with his responsibility towards his profession, students, parents, colleagues and management and institution that employed him; and teacher-student relationship is connected with students with whom his major interactions remain.

The third sphere, ‘Concern for Self’ consists of empowerment, self-development, and remuneration. These are grouped under ‘self’ as each one of these aspects contributes to the growth of the educator as an individual. Empowerment deals with the autonomy; self-development is related to his growth in personal and professional life; and remuneration, in terms of monetary and recognition factors, have an impact on his growth and retention.

**INSTRUMENT DEVELOPMENT AND VALIDATION**

The potential items were generated through the literature review. They are intended to measure the self-perception of educators regarding these characteristics. The measure for teacher efficacy was adopted from the Teacher Sense of Efficacy Scale of The Ohio State University developed by Tschannen-Moran and Woolfolk (2001). Out of the 24 items that studied both general teaching efficacy and personal teaching efficacy, the nine items pertaining to the personal teaching efficacy alone were taken for the instrument. A total of 85 items were generated. The demographic factors such as gender, age, designation, discipline of teaching, number of years of experience in teaching and in industry, if additional income is obtained and number of members in the family, were also included.

Content validity was done by obtaining opinion and feedback from experts on the clarity of the items constructed. The instrument was then used to collect 81 responses for the pilot study. The criterion validity and reliability were tested by using the pilot data. The corrected item total correlation score (CITC) should be more than 0.5 to ensure criterion validity. The Cronbach alpha value has to be more than 0.6 for acceptable reliability of the items. The 85 items were tested for content validity, criterion validity, and reliability scores and the items scoring less than the required values, were judged personally for their importance and need in contributing to the respective constructs. After the judgment analysis, the irrelevant items were deleted off the instrument. This process finally attained 60 items, with Cronbach alpha value 0.9172, which was used for the main data collection.

**RESULTS AND DISCUSSION**

The instrument was presented to 98 medical professors of different hierarchy. The existing level of professional characteristics and teacher efficacy based on the various demographic details are tabulated. The results and discussion of the perception of professional characteristics and teaching efficacy are given below.

Table 1 presents the total scores calculated for the entire sample of respondents; the scores between the

<table>
<thead>
<tr>
<th>Prof C</th>
<th>Total</th>
<th>Gender</th>
<th>Designation</th>
<th>Correlation between Prof Characteristics &amp; Teacher Efficacy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Sig p</td>
</tr>
<tr>
<td>SK</td>
<td>4.38</td>
<td>4.45</td>
<td>4.30</td>
<td>.112</td>
</tr>
<tr>
<td>TP</td>
<td>4.19</td>
<td>4.25</td>
<td>4.13</td>
<td>.271</td>
</tr>
<tr>
<td>UK</td>
<td>4.20</td>
<td>4.27</td>
<td>4.12</td>
<td>.128</td>
</tr>
<tr>
<td>Col</td>
<td>4.27</td>
<td>4.32</td>
<td>4.19</td>
<td>.187</td>
</tr>
<tr>
<td>Cmt</td>
<td>4.16</td>
<td>4.19</td>
<td>4.11</td>
<td>.444</td>
</tr>
<tr>
<td>TSR</td>
<td>3.89</td>
<td>3.77</td>
<td>4.04</td>
<td>.008</td>
</tr>
<tr>
<td>Emp</td>
<td>3.78</td>
<td>3.85</td>
<td>3.68</td>
<td>.132</td>
</tr>
<tr>
<td>SD</td>
<td>4.16</td>
<td>4.12</td>
<td>4.22</td>
<td>.431</td>
</tr>
<tr>
<td>Rem</td>
<td>3.72</td>
<td>3.89</td>
<td>3.49</td>
<td>.018</td>
</tr>
</tbody>
</table>

(** correlation significant at .01 level 2-tailed * correlation significant at .05 level 2-tailed)

Prof C – professional characteristics; SK – subject knowledge; TP – teaching prowess; UK – updating knowledge; Col – collegiality; Cmt – commitment; TSR – teacher-student relationship; Emp – empowerment; SD – self development; Rem – remuneration; TE – teacher efficacy.
male and female gender; the varied hierarchy given in three levels and the correlation between the professional characteristics and teacher efficacy. Subject Knowledge scores the highest among the total scores of the professional characteristics and importance to remuneration, the least. Professionals who are committed to their profession do give more importance to their subject field than remuneration. There is significant difference in the perception of teacher-student relationship and importance to remuneration among male or female respondents where the female respondents score higher in teacher-student relationship and male respondents score higher in giving importance to characteristics. This shows that women educators are interested in maintaining a good relationship with students than men; and men give more importance to remuneration.

We could see that in general, most of the characteristics score higher from junior level to middle level and then decreases from middle level to higher level of hierarchy. However, only two characteristics show significant difference between the various hierarchy levels – the subject knowledge and teacher-student relationship. Both the characteristics seem to improve with the educators’ career growth but after which their interest declines towards these two aspects. They may concentrate on ‘empowerment’ which has much to do with administration and managing aspects which is reflected in gradual increase of the score; the difference, however, is not significant. The table also shows the correlations between the various professional characteristics and teacher efficacy where all the characteristics except remuneration correlate at 99 per cent significance level. Teacher-student relationship is correlated only at 95 per cent level. Self development, commitment, and teaching prowess has higher correlation than other variables. With increasing years of teaching experience, their collegiality and empowerment was found to be higher.

Regression analysis results shown in Table 2 depicts that self-development, commitment, and subject knowledge are the characteristics identified as predictor variables through step-wise regression. These variables are highly correlated with teacher efficacy too, which has to be concentrated upon for the medical sector to improve teacher efficacy and hence student motivation and achievement in the field of medicine. Similar analysis with other sectors of education would identify specific characteristics of educators of the respective fields, that need focus to enhance teacher efficacy and hence student achievement.

**Table 2: Regression Analysis - Co-efficients**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Std. Error</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>2.116</td>
<td>0.319</td>
<td>6.637</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>0.384</td>
<td>0.076</td>
<td>0.461</td>
<td>5.068</td>
</tr>
<tr>
<td>2</td>
<td>(Constant)</td>
<td>1.271</td>
<td>0.392</td>
<td>3.241</td>
<td>0.002</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>0.271</td>
<td>0.079</td>
<td>0.326</td>
<td>3.421</td>
</tr>
<tr>
<td></td>
<td>CMT</td>
<td>0.316</td>
<td>0.093</td>
<td>0.322</td>
<td>3.385</td>
</tr>
<tr>
<td>3</td>
<td>(Constant)</td>
<td>0.620</td>
<td>0.472</td>
<td>1.313</td>
<td>0.192</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>0.257</td>
<td>0.078</td>
<td>0.308</td>
<td>3.300</td>
</tr>
<tr>
<td></td>
<td>CMT</td>
<td>0.261</td>
<td>0.094</td>
<td>0.267</td>
<td>2.777</td>
</tr>
<tr>
<td></td>
<td>SK</td>
<td>0.214</td>
<td>0.091</td>
<td>0.209</td>
<td>2.353</td>
</tr>
</tbody>
</table>

*Dependent variable: TE*
It is seen that the \( t \) value of all the variables is more than 1.96 except teaching prowess and remuneration. All other values of the \( t \) statistic depicts that there is significant relationship between each of the exogenous variables and the endogenous variable towards which they are connected.

**IMPLICATIONS OF THE RESEARCH AND FUTURE PLAN**

The same model can be tested for other educational sectors and a final model may be obtained. As the predictor variables are derived for this sector, the model may produce different predictor variables to other sectors of education like arts and science, engineering or management. It will help the educators and policy makers to understand the inter-linkages among the characteristics and those which have an impact on teacher efficacy. This will help in identifying the training methods, techniques, and means to develop the identified characteristics specific to different fields of education, which will enhance teacher efficacy that has a direct impact on student achievement and student motivation (Midgely, Feldlaufer and Eccles, 1989).

**REFERENCES**


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