DESIGNING A SCHOOL BEHAVIOURAL SYSTEM TO OPTIMIZE THE WORKPLACE MOTIVATION OF SCHOOL TEACHERS

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Abstract To develop a systems approach to school education and management, it is necessary that schools be redesigned as behavioural systems. A motivational system within a school system will have policies, practices, and processes aligned to maximise workplace motivation of an essential stakeholder. Teachers are very important to the success of a school system and its ultimate outcome. Studies have shown that motivated teachers lead to better student outcome and thus a behavioural system which seeks to maximize the workplace motivation of school teachers will be of great value to modern school design and management. The present paper draws on the empirical findings from the previous studies of the researchers to design a behavioural system for schools which will deal with the various factors that affect workplace motivation of school teachers. It is posited in this paper that peers, management, infrastructure, students, social, personal life, and work form a system consisting of various internal components which influence the internal motivational system of teachers. The internal motivational system of teachers consists of clash, esteem, process, security, relation, comfort, and hindrance components. The study seeks to design a system incorporating all the components that constitute the motivational system of individual school teachers. This study has potent implications for school management to help create schools which seek to optimise teacher motivation in a systemic manner in order to augment the efficacy of the teaching learning processes.

Keywords: Motivation, Teacher, System, School Management, School Organisation

INTRODUCTION

Studies on human motivation have broadly encompassed three approaches: behavioural, cognitive, and humanistic. The importance of having motivated teachers in school was put forth in a number of studies. Brumback (1986) and Maehr (1984) had postulated that teachers who have high levels of workplace motivation have better workplace outcomes resulting in better student performance. Thus it is important that a motivational system be designed by taking in all the factors which influence the workplace motivation of school so that schools can be designed as behavioural systems. Thus this study uses results from the previous studies of the researchers on the subject to assimilate and design a motivational system which will help maximise teacher motivation in schools.

REVIEW OF LITERATURE

The early researchers in human motivation like Lewin (1926) and Hull (1943) described human beings as 'prototypical' (Gollwitzer & Oettingen, 2001), machine like creatures who could only react to situations, both internal and external, without any conscious thoughts. Later researchers brought forth a concept of thinking human who would take the correct decisions based on their ability to think and assimilate knowledge. In recent studies on human motivation the concept of humans as 'flexible strategists' (Gollwitzer & Oettingen, 2001) is put forth. Thus humans can be knowledgeable and rational when a goal is chosen and defined but turn into strategists when they have to implement that goal (Gollwitzer, 1990). Maslow (1954) posited that individuals have five needs and they

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are hierarchical in nature which meant one would go to the next need only after the fulfilment of the previous one. These were physiological, safety, social, esteem, and selfactualisation. Herzberg, Mausner, and Synderman (1959) worked on a theory that was based on Maslow's theory and added a dimension to it. They propounded that while some factors (satisfiers) in the workplace caused satisfaction others caused dissatisfaction (hygiene factors).

In the specific context of teacher motivation, Brumback (1986) in his study found that the scores of students who had been taught by teachers with high job satisfaction levels were higher than those who had been taught by teachers with low levels of job satisfaction. Lortie (1975) and Sergiovanni and Starrat (1979) found that teachers were motivated by student achievement. Miskel (1979), Holdaway (1978), and Johnston (1985) found that there were certain variables like recognition, opportunities for professional development, the head of schools' leadership styles under the control of the heads of institutions which could ensure teacher motivation. Skinner and Belmont (1993) noted the importance of teacher-student relationship in student motivation and their performance.

Johnson (2006) had studied the impact of school infrastructure on the motivation of school teachers. Morton (1993) posited that a collaborative approach between teachers enhanced teacher performance, led to greater job satisfaction and less burn-out rates. Frase (1992) posited that intrinsic factors related to the work itself as also the job of teaching acted as motivators by bringing joy and satisfaction to teachers. Holdaway (1978) in his study found that the attitude of society contributed to teacher dissatisfaction. Crone and Horner (2003) posited that there were four behavioural systems in a school: school wide, classroom, non-classroom-specific setting and individual.

METHODOLOGY

This paper used data and findings from the previous studies of the researchers to design a systemic model which included all the systemic variables that were used in the previous studies by the researchers. The system design had, as its core construct, the maximisation of the workplace motivation of school teachers. To design the system the researchers tried to step beyond the concept of system as a mere processor wherein an input is fed, processed by the system and an output emerges. The researchers sought to design a behavioural system for teacher's motivation in school which was based on the inter relationships of the different variables as was brought forth by empirical data from previous studies. This approach is loosely based on the approach propounded by Zerz (2008). At the first step the data and findings from the previous studies of the researchers were collected and collated. The first work was an empirical analysis of the various factors that influenced the workplace motivation of school teacher (Roy & Sengupta, 2013). Following this study the researchers had worked on a series of studies concerning each factor that emerged from the first study in detail. Thus 6 more studies were conducted among the 111 school teachers of North Bengal wherein they were asked to respond to questionnaires concerning each factor of motivation in detail. After statistical analysis a set of principal components emerged from each factor. The influence of each component was mapped and the eighteen components that had emerged out of the previous studies were further reduced to 7 components with similar nature of influence on teacher's motivation. All the components and their sub components were then taken to design a school motivational system which would influence the individual motivation system of a teacher which in this case was a subsystem of the overall school system.

FINDINGS AND ANALYSIS

The data were collected from the seven previous studies by the researchers. The first study was an empirical analysis of the various factors on the motivation of school teachers (Roy & Sengupta, 2013). The results of this study showed that the workplace motivation of school teachers was influenced by six broad factors namely: colleagues, students, management, work itself, social and personal factors and school infrastructure. Taking these six broad factors as their basis the researchers had conducted six more empirical studies and each of these broad factor was analyzed in detail and the components which made up each of the broad factors and their influences were studied. The second study was an empirical analysis of the influence of school management on the motivation of school teachers (Roy & Sengupta, 2013). The results of the study showed that the factors related to management which influenced the workplace motivation of school teachers could be divided into three components these were humane factors, operational factors and clash factors. The composition of these factors is given in Table 6. The third study was conducted as an empirical analysis of the influence of school infrastructure on the motivation of school teachers (Roy & Sengupta, 2014). The study concluded that the factors related to school infrastructure which influenced workplace motivation of school teachers could be divided into three components; ego factors, operational factors, and convenience factors (Table 4). The fourth study dealt with the colleagues and peer influences on the motivation of school teachers (Roy & Sengupta, 2015). The study showed that the motivation of the teachers was influenced by factors which could be divided into three components: relationship component, ambition component, and clash component (Table 1).

The fifth study by the researchers dealt with the influence of students on the motivation of school teachers (Roy &

Sengupta, 2016). The study showed that the factors related to students influencing the motivation of school teachers could be divided into three factors: bonding, process factors, and hindrance factors (Table 2). The sixth study by the researchers dealt with the influence of the work itself on the workplace motivation of school teachers (Roy & Sengupta, 2016). The results showed that the factors related to the workplace motivation of school teachers could be divided into three components; esteem factors, comfort factors, and security factors (Table 3). The seventh study by the researchers dealt with the social and personal factors which affected the motivation of the school teachers (Roy & Sengupta, 2016). This study showed that the factors again could be divided into three components: physiological and safety factors, esteem factors, and happiness factors (Table 5).

Table 1: Factors Affecting the Influence of Colleagues on **Motivation of School Teachers**

Relationship factors	Ambition factors	Clash factors
Helpful	Professional & competent colleagues	Conflicts
Friendly	Competition	Political power play
Team spirit	Hardworking & dedicated colleagues	
Trustworthy		
Informal relationship		

Table 2: Factors Affecting the Influence of Students on **Motivation of School Teachers**

Bonding Factors	Process Factors	Hindrance Factors
Discipline	Academic quality	Rude
Respect	Willingness to learn	Manipulative
Trust for teachers	Focused and motivated to do well in life	
Interaction outside the classroom		
Teachers as role models		

Table 3: Factors Affecting the Influence of the Work Itself on Motivation of School Teachers

Comfort	Security	Esteem Factors
Factors	Factors	
Job satisfaction	Security of tenure	Adequate pay
Work hours	Safety at work	Appraisal, recognition and rewards
Boss/ supervisor		Merit based promotions
Organisational structure		Future prospects

Table 4: Factors Affecting the Influence of the School Infrastructure on Motivation of School Teachers

Ego Factors	Operational Factors	Convenience Factors
Aesthetics	Academic infra- structure	Safety
Recreational facilities	Access to computers and internet	Cleanliness
Status in comparison to other schools	ICT in the teaching learning process	Location
		Maintenance
		Communication and transport

Table 5: Factors Affecting the Influence of the Personal and Social Life on Motivation of School Teachers

Physiological and Safety Factors	Happiness Factors	Esteem Factors
Comfort of residence	Respect from society	Respect from family
Quality of personal health	Happy and smooth family life	Ambition to do better
Quality of health of dependents	Vibrant social life, hobbies, entertain- ment and leisure hours	Opportunities for further studies
Financial status		

Table 6: Factors Affecting the Influence of the School Management on Motivation of School Teachers

Humane Factors	Operational	Clash Factors
	Factors	
Understanding	Participative	Harsh
Fair	Qualified	Unreasonable
Respect for teachers	Capable	
Concern for teachers Family	Effective leadership Style	
Trustworthy	Accessible	
Generous		
Encouraging		
Appreciative		

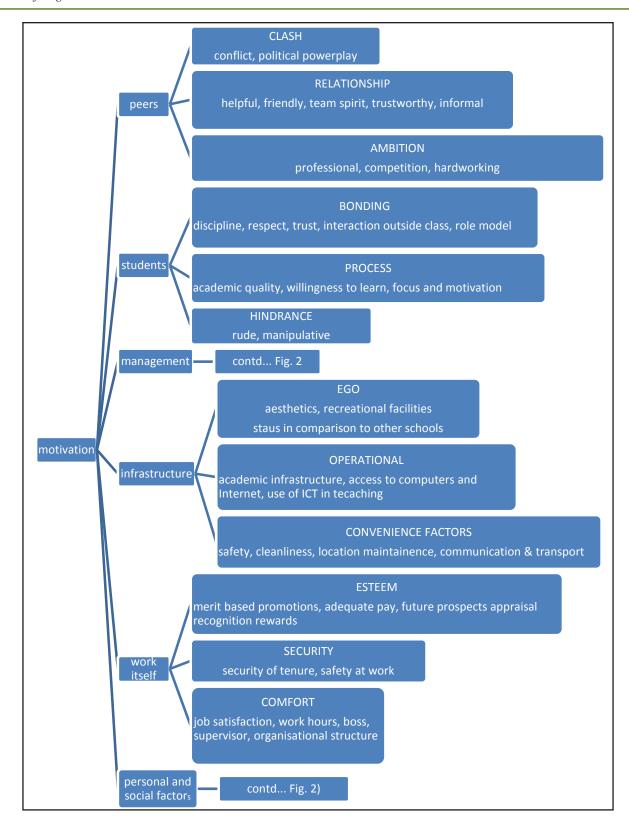


Fig. 1: Factors Affecting the Motivation of School Teachers

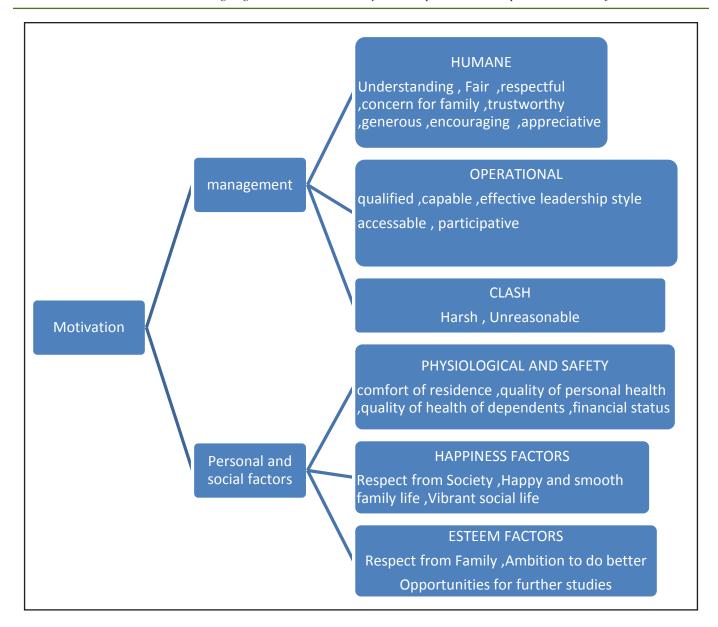


Fig. 2: Factors Affecting the Motivation of School Teachers

The eighteen factors which emerged out of the six previous studies were analysed and further grouped into seven factors each of which was taken as a system. These factors were termed: clash, relation, esteem, process, comfort, security, and hindrance. The composition of the various factors is given in Fig. 3.

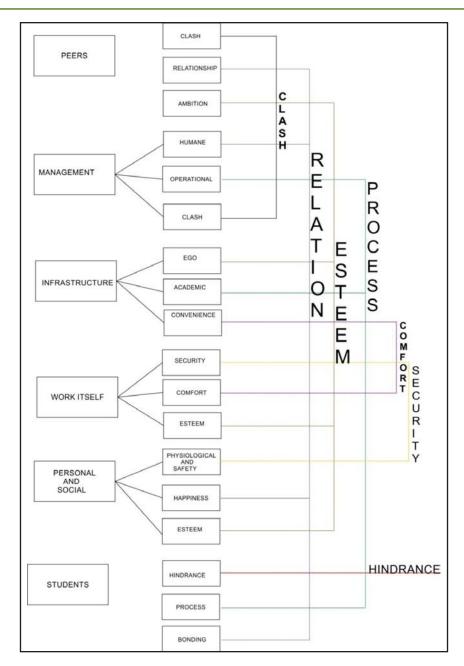


Fig. 3: Factors Affecting the Workplace Motivation of School Teachers

The six fundamental systems within the context of a school which affected the motivation of the teachers were identified as Students, Teachers (peers/colleagues), School Management, School Infrastructure, Work itself, and Society (social and personal). The school system can be termed as an open system with specialised and interdependent

subsystems. These subsystems form what is termed as closed interdependencies. The relationship among these subsystems is not linear but circular and mutually causative. So while school management influences society, society also influences school management and so on. This system is explained in the Fig. 4.

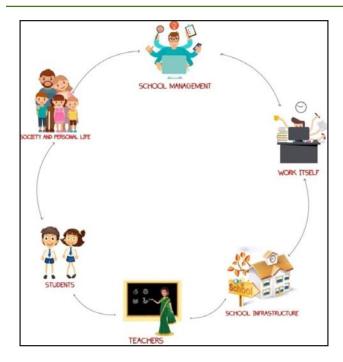


Fig. 4: The School Motivational System

The school motivational system for teachers is composed of six subsystems and the various subsystems influence the various individual motivational systems of teachers. These behavioural systems are subsystems within the school systems. Clash, Esteem, Security, Comfort, Process, and Relation are the various components that make up the individual motivational systems. This is an open system which is influenced by the school motivational system.

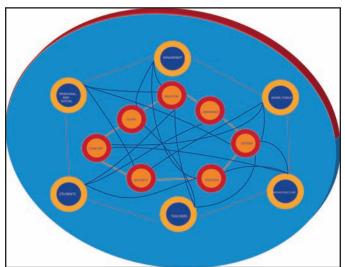


Fig. 5: The School Motivational System and Its Interactions

In the figure 5 the school motivational system and its component subsystems are denoted by the blue circles with yellow borders and the individual motivational system is denoted by the orange circles with red borders. The factors

affecting the motivation of school teachers can be divided into 7 components: relation, comfort, security, clash, hindrance, esteem, and process. The blue lines show the inter connectivity between the factors that constitute the school motivational system and the factors that constitute the motivational system of school teachers. Thus the school management system affects the clash factors, process factors and relation factors. The school infrastructure system affects the process factors, esteem factors, and comfort factors. The subsystem that represents the work itself affects the comfort, esteem, and security factors. The school student system affects the relation, hindrance, and process factors. The personal and social systems affect the security, esteem, and relation factors. The peer system affects the esteem, relation, and clash factors. This represents a comprehensive school motivational system for teachers. Once the school motivational system has been operationally designed it is imperative to design processes for encouraging an optimal outcome of the teacher motivation system. The process design can be divided into two parts:

1. Pre-Operational 2. Operational

Pre-Operational Process



Fig. 6: Pre-operational Process Design for Optimal Teacher Motivational Systems in Schools

Fig. 6 explains the pre-operational process chart. The preoperational processes define school processes before the operations begin in a school. Thus at pre-op stage 1 the infrastructure design is taken into consideration. The different parameters related to school infrastructure which affect the motivation of school teachers like academic infrastructure, safety, aesthetics, location, recreational facilities, Internet and computers, communication and transport facilities to and from the school, and relative status of the school infrastructure with relations with other similar schools have to be taken into account at this stage before infrastructure planning and design. At pre-op stage 2 the management structure of the school has to be planned and designed. Qualifications of the management staff and their capability should be given the best consideration at this stage to shortlist management staff. At pre-stage 3 the management model has to be designed and parameters such as understanding, fair, trustworthy, generous and effective leadership style should be given best considerations for further filtering of shortlisted management staff and their final placement in consonance with the school management philosophy. At pre-op stage 3 the management has to develop a work design which will conform to the macro management principles of the school and incorporate adequate pay plan, work hours, safety plans at work and organisation structure. At pre-op stage 4 the management begins the recruitment procedure for teachers and in addition to the qualifications and other operational parameter checks it is prudent that the management at this stage checks for the teachers' comfort of residence, health status, health status of dependents and the quality and status of personal life. At pre-op stage 5 the management and the teachers should jointly design a set of organisational goals which should include goals to have respectful students, disciplined students, teachers as role models, trust among teachers and students, healthy interaction of teachers and students outside the classroom, high academic quality of students and students motivated and focused to do well in life. These pre operational process design procedures can be conducted for new school operations and design as well as for existing schools as staged and planned interventions.

Operational Process



Fig. 7: Operational Process Design for Optimal Teacher Motivational Systems in Schools

Operational process design defines processes for operations of the school. At this the processes are not chronological in nature and relationship and do not follow one after another as in the pre-ops design but simultaneous and repetitive at adequate intervals for each operational entity. At OP 1 it is necessary to check and ensure that classrooms are clean with regular maintenance and with functioning ICT modules in classrooms. At OP 2 it is to be ensured that the management is respectful to the teachers and their families, that a participative form of management is followed and that the management is accessible, encouraging and appreciative of teachers' efforts. At OP 3 the management has to conduct individual maintenance check of teachers and staff through interviews, discussions, workshops or seminars. These checks should seek to find out more about the financial status of the teachers, their social life, hobbies, ambition to do better, the respect they get from society, their status in society, trustworthiness and dependability of both management and teachers, professional acumen, academic competence and opportunities and need for further studies. At OP 4 the school management has to assess job satisfaction levels of teachers, an appraisal, recognition and rewards model has to be developed, supervisors have to assessed and counselled, a system of merit based promotions, security of tenure and with future prospects have to developed. At OP 5 group behaviour checks have to be conducted through workshops, retreats, games, personal interactions and other methods. These checks will seek to assess group behaviour in terms of helpfulness, friendliness, team spirit, political power play, conflicts, and informal relationships. Interventions when necessary have to be conducted. At OP 6 continuous motivation maintenance procedures have to be conducted. These motivation maintenance procedures include continuous feedback system, individual teacher counseling, group teacher counseling, participative decision making model, student counseling, student behaviour checklist and correction system, continuous training development system, fair and transparent reward system, participative goal settings and opportunities for self-development through further studies and courses.

IMPLICATION FOR PRACTICE

The study presents potent and specific areas of implication for school management. Since the motivation of teachers is directly connected to the successful outcome of the school processes, it is imperative that all school processes are designed while keeping in mind the motivation of the school teachers. Thus a systemic framework which encompasses all factors which affect the motivation of school teachers along with a process chart which specific areas, methods and steps of designing and putting into place such a system will be of primary value to school management which seek to augment

teacher motivation and thus lead to more effective outcome of the teaching learning process.

SUMMARY AND CONCLUSION

This paper attempted to use empirical data to design a motivational system for school teachers. The study used data from previous studies of the researchers on the subject and combined them to put forward a systemic framework. The school motivational system was posited to consist of six subsystems: infrastructure, peers (teachers), students, work itself, social and personal factors, and school management. This system is an open system which interacts with the outside world but consists of specialised sub systems which have closed interdependencies with each other. The school motivational system influences the individual motivational system which is comprised of seven factors as put forth by the data from the previous studies of the researchers. These seven factors are clash, hindrance, comfort, relation, security, esteem, and process. These factors constituted an individual motivational system which was also open system which was influenced by the school motivational system and its sub systems. The study had as it objective a process design which could influence teacher motivation and present it at an optimal level. The process was designed in two steps; step one was preoperational process design which would be relevant both for new schools as well as for existing schools as intervention modules. The operational process design was not chronological in nature and consisted of a continuous structure with discrete modules which could be applied at specified intervals. The limitations of this study relate to a relatively small sample size and a limited geographical boundary. A thorough study to test the model on a large sample size over an expanded geographical area is thus recommended.

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