



**INTERACTION EFFECT OF SEX, ACHIEVEMENT-MOTIVATION, AND
EMOTIONAL INTELLIGENCE ON SPIRITUAL INTELLIGENCE OF PUPIL-
TEACHERS**

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Abstract

The present study has been carried out to assess the interaction effect of sex, achievement-motivation and emotional intelligence on spiritual intelligence on a sample of 100 pupil-teachers both male (44) and female (56) by applying a (2x2x2) three ways factorial design. The data has been collected with the help of Spiritual Intelligence Self-Report Inventory (King, 2008), Achievement-Motivation Test (Rao, 1974) and Emotional Intelligence Scale (Kumar, 2004). It has been revealed that the main effects of achievement-motivation, and emotional intelligence as well as first order interaction namely sex, and achievement-motivation are found to be significant whereas the main effect of sex as well as the various interactions such as first order except (sex x achievement-motivation) and second order interactions are found to be non-significant. However, the present study suggests about educational implication for the community.

Key words: *Spiritual Intelligence, Achievement-Motivation, Emotional Intelligence, Pupil-Teachers.*

Introduction: Education is a social process by which knowledge is transferred from one generation i.e teachers to another generation i.e students. It is acquired through formal and non-formal system of education. Teacher, Taught, Curriculum, and Environment are four essential component of the education. The most important component in the educational system is the teacher. Only his / her quality such as motive, intelligence and wisdom, the teacher becomes moderator and facilitator of the society. In this regards, the Secondary Education Commission (1952) pointed out that, “We are convinced that the most important factor in contemplated

educational reconstruction is the teacher, his personal qualities, his education qualities, his professional training and the place that he occupies in the school as well as in the community.” To a large extent the quality of teacher determines the degree of attainment of educational objective, Kothari Commission (1964-66) stated that, “of all the different factors which influence the quality of education and its contribution to national development, the quality, competence and character of the teachers are undoubtedly the most significant.” Teacher can modify and change the behaviour patterns of the students either inside or outside the classroom. The teacher plays a vital role in teaching-learning situation and the standard of education depends upon his / her intelligences. An intelligent teacher is the best social agent or social engineer contributing to educational improvement at all levels of education. Intelligence may be developed among pupil-teachers according to the needs of society to become them as a powerful and fundamental catalyst in shaping the destiny of coming young generation. In this regards, the Kothari Commission (1964-66) remarked that, “The destiny of its nation is being shaped in her classroom.”

Pupil-teachers are those students who have been preparing for the teaching profession after qualifying B.Ed. Entrance Examination. Teacher Educational Institutions ensure them the rich and diverse knowledge in the field of philosophy, psychology, history, sociology, technology, statistics, evaluation and measurement, comparative education, value education, pedagogy, administration and supervision, teaching methodology and so on for balancing theory and practice of teaching – learning situation which provides base for capacity building and multi-dimensional development of pupil-teachers.

In this regards, National Council for Teacher Education (2009, p15) drafted for discussion in National Curriculum Framework for Teacher Education, “ Teaching is a process of professional preparation of teachers, preparing one for a profession is an arduous task and it involves action from multiple fronts and perspectives. A profession is characterized by a sufficiently long period of academic training , an organized body of knowledge on which the undertaking is based , an appropriate duration of formal and rigorous professional training in tandem with practical experience in the field and a code of professional ethics that binds its members into a fraternity.”

NCTE (2009, P-16) stated, “When the profession concerned in teaching these dimensions acquire critical importance in view of several factors. There is, first of all, the traditional

idealism, esteem, and importance attached to the role of the teacher and the very high societal expectations from the teacher. Teaching, essentially, is also a moral undertaking, although information transmission dominates the teacher' work. Teachers are concerned in an important way with total development of human beings-physical, intellectual, social moral and spiritual.”

In brief, they may be futuristic teachers of the nation. So, their personal achievement-motive, and emotional intelligency help to become spiritually intelligentsia for serving as moderator and facilitator in the society contributing for national development.

Spiritual Intelligence : Spiritual intelligence is consisted of two words-spiritual and intelligence. The word spiritual derived from Latin word *spiritus*, which means “that gives life or vitality to a system Zohar (1997).”

Zohar (1997) coined the term ‘Spiritual Intelligence’ and introduced the idea of it “It is the intelligence that makes us whole, that gives us our integrity. It is the soul’s intelligence, the intelligence of the deep self. It is the intelligence with which we ask fundamental questions and with which we reframe our answers (Zahar and Marshall 1999).” Further, Zahar and Marshall (2000) defined spiritual intelligence as “the intelligence with which we address and solve problems of meaning and value ,the intelligence with which we can place our actions and our lives in a wider, richer, meaning –giving context , the intelligence with which we can assess that one course of action or life-path is more meaningful than another.”

Emmons (1999) wrote, “Spiritual intelligence is a framework for identifying and organizing skills and abilities needed for the adaptive use of spirituality.”

Emmons (2000a, 2000b) argued that “spiritual intelligence can be viewed as a form of intelligence because it predicts functioning and adaptation and offers capabilities that enable people to solve problems and attain goals.” Emmons (2000a) initially proposed five components of spiritual intelligence: (a) ability to utilize spiritual resources to solve problems; (b) ability to enter heightened states of consciousness; (c) ability to invest everyday experiences; (d) capacity for transcendence of physical and material; (e) capacity to be virtuous. However, Emmons (2000b) removed the capacity to be virtuous and retained the first-four components of the model.

Levin (2000) argued, “Spiritual intelligence is exhibited when we live in a way that integrates spirituality into our daily life.”

Wolman (2001) defined spiritual intelligence as “the human capacity to ask ultimate questions

about the meaning of life, and to simultaneously experience the seamless connection between each of us and the world in which we live.”

Vaughan (2002) described,” Spiritual intelligence is concerned with the inner life of mind and spirit and its relationship to being in the world. Spiritual intelligence implies a capacity for a deep understanding of existential questions and insights into multiple levels of consciousness. Spiritual intelligence also implies awareness of spirit as the ground of being or as the creative life force of evolution. If the evolution of life from stardust to mineral, vegetable, animal, and human existence implies some form of intelligence rather than being a purely random process, it might be called spiritual. Spiritual intelligence emerges as consciousness evolves into an ever-deepening awareness of matter, life, body, mind, soul, and spirit. Spiritual intelligence, then, is more than individual mental ability. It appears to connect the personal to the transpersonal and the self to spirit. Spiritual intelligence goes beyond conventional psychological development. In addition to self awareness, it implies awareness of our relationship to the transcendent, to each other, to the earth and all beings. Working as a psychotherapist, my expression is that spiritual intelligence opens the heart, illuminates the mind, and inspires the soul, connecting the individual human psyche to the underlying ground of being. Spiritual intelligence can be developed with practice and can help a person distinguish reality from illusion. It may be expressed in and culture as love, wisdom, and service”

Nasel (2004) defined spiritual intelligence as the “ability to draw on one’s spiritual abilities and resources to better identify, find meaning in, and resolve existential, spiritual, and practical issues. Such resources and abilities, be it prayer, intuition, or transcendence, ought to be relevant to facilitating an individual’s capacity for finding meaning in experiences, for facilitating problem solving, and for enhancing an individual’s capacity for adaptive decision making.”

Zahar and Marshall (2004) defined,” Spiritual intelligence is the intelligence with which we access our deepest meanings, purposes and highest motivations.” They introduced 12 qualities of SQ namely-self-awareness, spontaneity, being vision, holism, compassion, celebration of diversity, field independence, humility, tendency to ask fundamental “why” questions, ability to reframe, positive use of adversity, and sense of vocation.

Emmons (2000) defined spiritual intelligence as “the adaptive use of spiritual information to facilitate everyday problem solving and goal attainment.”

Wigglesworth (2006) defined spiritual intelligence as “the ability to act with wisdom and compassion, while maintaining inner and outer peace, regardless of the circumstances.” She arranged four quadrants of spiritual intelligence as higher self / ego self awareness, universal awareness, higher self / ego self mastery, and spiritual presence / social mastery.

According to Amram (2007), “SI is defined as the as ability to apply and embody spiritual resources and qualities to enhance daily functioning and wellbeing.” and gave 7 major themes of SI. They are: (a) Consciousness: Developed refined awareness and self-knowledge; (b) Grace: Living in alignment with the sacred manifesting love for and trust in life; (c) Meaning: Experiencing significance in daily activities through a sense of purpose and a call for service, including in the face of pain and suffering; (d) Transcendence: Going beyond the separate egoic self into an interconnected wholeness; (e) Truth: Living in open acceptance, curiosity, and love for all creation (all that is) ; (f) Peaceful surrender to Self (True, God, Absolute, true nature); and (g) Inner-Directedness; inner-freedom aligned in responsible wise action.

Working with this paper, Spiritual intelligence, in author’s view, may be defined as “it is the intelligence which enhances capabilities, capacities, competencies and skills of the individual to become achievement-motive and emotionally intelligent to solve the everyday problems creatively and constructively in the new situation of the socio-psycho-physical environment for attaining ultimate aims of education”.

Achievement-Motivation : Dweck & Elliot (1983) pointed out that achievement-motivation consists of varied and complex set of assumptions, assessments, predictions, inferences, values, standards and affective reactions that may be irrational, inaccurate, and contradictory.

Achievement motivation typically refers to the level of one’s motivation to engage in achievement behaviours based on the interaction of such parameters as need for achievement, expectancy of success, and the incentives value of success. Our construct of motivational orientation refers to the type of motivational stance which the child adopts toward classroom learning. Thus, one may engage in schoolwork for intrinsic reason, because work is challenging, enjoyable, and piques one;s curiosity or alternatively, one may engage in schoolwork for extrinsic reasons, either to obtain external approval or because the educational system requires it (Harter & Connell, 1984).According to Heckhausen (1967),”Achievement motivation can, therefore, be defined as the striving to increase or to keep as high as possible, one’s own

capabilities in all activities in which a standard of excellence is thought to apply and where the execution of such activities can, therefore either succeed or fail. ”

Emotional Intelligence: The term ‘Emotional Intelligence’ was initially traced back to the theory of intelligence propounded by Thorndike(1920) and made comment in Harper’s Magazine about the possibility of a form of intelligence that he termed ‘social intelligence’ which differed from academic intelligence (Mathews etal, 2002). But the term was coined in 1990 by Peter Salovey, a Yale Psychologist, and John Mayer, of the University of New Hampshire, published the seminal article ‘Emotional Intelligence’ and defined emotional intelligence as “a form of social intelligence that involves the ability to monitor one’s own and other’s feelings and emotions, to discriminate among them and to use this information to guide one’s thinking and action”. The term became popular by Goleman (1995) with book ‘Emotional Intelligence: why it can matter more than IQ’ and Working with Emotional Intelligence’ in 1998.As pointed out by Goleman (1995, 1998), emotional intelligence as a “a learned skill that a better predictor of life success than intellectual attainment or technical ability”, and “emotional intelligence refers to the capacity of recognizing our own feelings and those of others for motivating ourselves and for managing emotions well in ourselves and our relationships”.

It may be, in author’s view, defined as “the ability of learner/ taught/child/individual/student to recognize and regulate cognitive and non-cognitive factors, behaviors, competencies, and skills in self and others.”

NCERT (2000) has observed that curriculum has to provide learning experience which will improve individual’s thoughts, feelings and actions. Education for promoting emotional intelligence will help in improving the level of success, self-esteem and well being of a person.

When the profession concerned is teaching these dimensions acquire critical importance in view of several factors. There is, first of all, the traditional idealism, esteem, and importance attached to the role of the teacher and the very high societal expectations from the teacher. Teaching, essentially, is also a moral undertaking although information transmission dominates the teacher Teaching is one of the most challenging job in our knowledge society in which teachers play a vital role for preparing students with better cognitive, and non-cognitive qualities. In order to solve the problem, we should not neglect the quality of the pupil-teachers. They, of course, should be highly achievement-motive, and highly emotionally intelligent as for highly spiritual

intelligent to become successful, effective, competent and value caring teachers for the betterment of the global society

A lot of research work has been able to find out the dominant factors of spiritual intelligence.

Sex is the one of the factors of spiritual intelligence. Researchers such as Jeloudar, Suraya, Yunus, Roslan and Nor (2013) studied exploring the relationship between teachers' spiritual intelligence and classroom discipline strategy and found that there were no significant difference between teachers' gender in their spiritual intelligence. Khorshidi and Ebaadi (2012) concluded that there was no meaningful differences between spiritual intelligence mean of employees in different gender. Kaur and Singh (2013) studied spiritual intelligence of prospective engineers and teachers in relation to their gender, locality and family status and found that spiritual intelligence was not significantly related to their gender, locality, and family status.

Another factor which is closely related to spiritual intelligence is the achievement-motivation. Authors such as Nasrabadi, Heshi, Nadi, Tavakolnia, & Najafi (2013) concluded that the capability of implementing spiritual resources has had the highest influence on students' educational improvement. In other words, good relationship with god, implementing spiritual resources, the pure spirit and resort to religious sanctities can influence the motivation for educational improvement. Christopher's (2004) results showed that achievement motivation was significantly correlated with both choice of an entrepreneurial career and entrepreneurial performance. The findings of Aycock (2003) indicated that there is a significant relationship between extrinsic motivation, intrinsic motivation and general satisfaction and principals' leadership behaviours consideration and initiating structure.

The ultimate aim of education is the overall development of the individuals which includes their success in career and life as well as well being of the persons. Chatterjee (1998) stated that it is very necessary to develop emotional intelligence to understand and accept situations and to be successful in life. Zohar & Marshall (2004) stated that SQ is the necessary foundation for effective functioning of IQ and EQ. Dhingra, Manhas, &Thakur(2005) found significant correlation between emotional intelligence and spiritual quotient in a North Indian Sample. Kaur, Singh, & Singh (2012) found significant difference in emotional intelligence between individuals who are high on spiritual quotient and those who are low on it.

A survey of research evidences indicates that sex, achievement-motivation, and emotional

intelligence are closely associated with spiritual intelligence. Most of the studies reported above have been conducted on school students and others but very limited attempt has been made to enhance spiritual intelligence of pupil-teachers. So that it is necessary to undertake a study for identifying the factors such as sex, achievement-motivation, and emotional intelligence that are responsible for the spiritual intelligence of pupil- teachers. The present paper is an effort to find out the factors of spiritual intelligence. Since spiritual problems are felt by different sexes, different levels of achievement-motivation and different levels of emotional intelligence. Therefore, the investigator has decided to conduct a study to the effect of sex, achievement-motivation and emotional intelligence on spiritual intelligence of pupil- teachers.

The study may be considered as a significant from the point of view that spiritually low intelligent pupil-teachers may be influenced by their less achievement-motivation and less emotional intelligence. They constitute a group of pupil-teachers who are unknown till this day. The study may bring out a fact that such a group of pupil-teachers does exist. Similarly, the study may bring to the light on the existence of the group of pupil-teachers who are spiritually high intelligent. This may be considered as one of the contribution of the study.

As sex, achievement-motivation and emotional intelligence affect the spiritual intelligence of pupil-teachers; hence following questions arise regarding spiritual intelligence of pupil-teachers:

Whether the pupil-teachers have spiritual intelligence?

Is the sex playing an important role, while influencing their spiritual intelligence?

Whether achievement-motivation affects the spiritual intelligence of pupil-teachers?

Whether emotional intelligence has any impact on spiritual intelligence of pupil-teachers?

Whether sex and achievement-motivation have impact on spiritual intelligence?

Whether achievement-motivation and emotional intelligence affect the spiritual intelligence of pupil-teachers?

Whether sex, achievement-motivation, and emotional intelligence have impact on spiritual intelligence?

Statement of the Problem: The problem for the purpose of investigation may be stated as:

“Interaction Effect of Sex, Achievement-Motivation, and Emotional Intelligence on Spiritual Intelligence of Pupil-Teachers.”

Objectives of the Study

The following objectives have been undertaken for the study;

1. To study how sex differentiate on spiritual intelligence of Pupil-Teachers.
2. To study the effect of achievement-motivation on spiritual intelligence of Pupil-Teachers.
3. To study the effect of emotional intelligence on spiritual intelligence of Pupil- Teachers.
4. To study the combined effect of sex, and achievement-motivation on spiritual intelligence of Pupil-Teachers.
5. To study the combined effect of achievement-motivation and emotional intelligence on spiritual intelligence of Pupil-Teachers.
6. To study the combined effect of sex and emotional intelligence on spiritual intelligence of Pupil-Teachers.
7. To find out the triple interaction effect of sex, achievement-motivation and emotional intelligence on spiritual intelligence Pupil-Teachers.

Basic Assumption

1. The Rao Achievement-Motivation Test (1974) can measure achievement-motivation of Pupil-Teachers.
2. The Emotional Intelligence Scale(2004) can give information regarding emotional intelligence of Pupil-Teachers.
3. The Spiritual Intelligence Self-Report Inventory (King, 2008) can assess spiritual intelligence of Pupil-Teachers.

Hypotheses

To achieve the above mentioned objectives, the following hypotheses have been formulated for the present study:

1. There is significant difference between male and female Pupil-Teachers in relation to their spiritual intelligence.
2. There is significant effect of achievement-motivation spiritual intelligence of Pupil- Teachers.
3. There is significant effect of emotional intelligence on spiritual intelligence of Pupil-Teachers.
4. Sex and achievement-motivation interact significantly in relation to spiritual intelligence of Pupil-Teachers.
5. Achievement-motivation and emotional intelligence interact significantly in relation to spiritual intelligence of Pupil-Teachers.
6. Sex and emotional intelligence interact significantly in relation to spiritual intelligence of Pupil-Teachers.
7. Sex, achievement-motivation and emotional intelligence interact significantly in relation to spiritual intelligence of Pupil-Teachers.

Operational Definitions

Spiritual Intelligence

Covey (2004) observed that, “Spiritual Intelligence is the central and most fundamental of all the intelligences, because it becomes the source of guidance for the others.”

King (2007) defined spiritual intelligence as “a set of adaptive mental capacities based on non-material and transcendent aspect of reality, specifically those that contribute to the awareness, integration, and adaptive application of the non-material and transcendent aspects of one’s existence, leading to such outcomes as deep existential reflection, enhancement of meaning, recognition of a transcendent self, and mastery of spiritual states.”

Operationally, Spiritual intelligence may be defined as, “The score obtained by the Pupil-Teachers on Spiritual Intelligence Self-Report Inventory (SISRI-24) by King (2008).

Emotional Intelligence: Salovey and Mayer (1990) defined “Emotional intelligence as a form of social intelligence that involves the ability to monitor one’s own others feeling and emotions, to discriminate among them and to use this information to guide one’s thinking and actions”.

Operationally, Emotional Intelligence may be defined as “The score obtained by the Pupil-Teachers on Emotional Intelligence Scale by Kumar (2004).”

Achievement-Motivation: Achievement-motivation is affect in connection with evaluated performance in which competition with a standard of excellence was paramount (Mc Clelland, Atkinson, Clark, & Lowell, 1953).

Operationally, Achievement-Motivation may be defined as “The score obtained by the Pupil-Teachers on Achievement-Motivation by Rao (1974)”.

Delimitation of the Study: Keeping in view the limitation of time, resources and energy, the investigation has been delimited both qualitatively and quantitatively as under:

Only 100 Pupil-Teachers both sexes – male and female belonging to Bhagalpur District have been considered for the study.

Methodology:

Sample: The sample of the present study consists of 100 male and female Pupil-Teachers who have been selected randomly belonging to Bhagalpur District (Bihar).Details of the sample are given in the Table-1.

Psychometric Instruments

1. Spiritual Intelligence Self Report Inventory (SISRI-24): It is developed by King (2008) has been used in the present study to measure Spiritual Intelligence of Pupil-Teachers. It contains 24 items and encompassing four dimensions of spiritual intelligence namely-Critical Existential Thinking (CET) containing 7 items, Personal Meaning Production(PMP) containing 5 items, Transcendental Awareness(TA) containing 7 items and Conscious State Expansion (CSE) containing 5 items. Each item is provided with five alternatives. The highest score on the total SISRI (24) is 96 and the lowest score is 0. The SISRI (24) has a split half reliability of 0.94 and a Crobach's Alpha 0.95 with construct, convergent and divergent validity.

2.Emotional Intelligence Scale developed by Kumar (2004) has been used in the present study to measure Emotional Intelligence of Pupil-Teachers. It contains 44 items and encompassing four dimensions of emotional intelligence namely-recognizing emotions (self), recognizing emotions (others), understanding emotions and using emotions. Each dimension contains eleven items. Each item is provided with five alternatives. The highest score on the EIS is 220 and the lowest score is 44. The EIS has a split half reliability of 0.92, a test-retest reliability of 0.83 and a Kuder Richardson reliability of 0.81 with construct, content and face validity.

3. Achievement-Motivation Test developed by Rao (1974) has been used in the present study to assess Achievement-Motivation of Pupil-Teachers. It contains 20 items, each of which is followed by two possible alternatives A and B, out of which one is an achievement-related item. Both the alternatives are achievement –oriented and socially acceptable in which of them imply a higher of achievement and excellence. There is no time limit but the group test takes about 8-10 minutes. The reliability of the test was determined by test-retest method, after an interval of one month. The coefficient of reliability was found to be 0.79.

Procedure: The tests have been administered and scored as direction given in the manual

Data Organization: Table-1 describes certain modes which are helpful in the analysis of gathered data and offering interpretation. The gathered data has been organized by the researcher in order to make them meaningful in the following way:

Firstly, data is divided into two parts on the basis of sex. Thus the total number of male and female pupil teachers is 44 and 56 respectively.

Secondly, median has been calculated from the scores of achievement-motivation and on that basis the data has been divided into two sub groups. The calculated median value for achievement-motivation score is 45.33 hence, scores 45 and above 45 have been placed in the

group of pupil teachers having high achievement-motivation and the scores 44 and below 44 have been treated as the group of pupil-teachers having low achievement-motivation. Thus, the total number of high achievement-motivate pupil teachers is 52 and that of pupil teachers having low achievement-motivation is 48.

Thirdly, median has been calculated from the scores of emotional intelligence and on that basis the data is divided into two subgroups. The calculated median value for emotional intelligence is 141.72, hence scores 141 and the above 141 have been placed in the group of trainees having high emotional intelligence and the scores 140 and below 140 have been treated as pupil-teachers having low emotional intelligence. Thus, the total number of high emotionally intelligent pupil-teachers is 54 and that of low emotionally intelligent pupil teachers is 46..

Statistical Techniques: The independent variables are sex, achievement-motivation and emotional intelligence and the dependent variable is spiritual intelligence. Each of the independent variables has been differed in two ways. Hence a Three Way Analysis of Variance (2x2x2) has been used to analyze the independent and interactive effects of independent variables on the dependent variable. The present study investigates the interactions among different levels of sex, achievement-motivation and emotional intelligence which involved the comparison of more than two means.

If ANOVA yields significant 'F'- Ratio, the 't' test has been used in order to test the significance of the difference between the means of the two groups.

Analysis and Interpretation of Data: To find out the main effect of the independent variables-sex, achievement-motivation, and emotional intelligence on the dependent variable spiritual intelligence, the investigator used a three way Analysis of Variance which is given in Table 3.

The obtained F-value for the main effect of sex on spiritual intelligence is 0.00012 which is less than the tabled value (3.94) for (1, 99) degrees of freedom at 0.05 level of significance. Hence the main effect of sex on spiritual intelligence is insignificant. The non-significance of sex mean square tells us that the means for male and female averaged over levels of achievement-motivation, and emotional intelligence, do not differ significantly.

The obtained F value for the main effect of achievement-motivation on spiritual intelligence for the total sample (99) is 5.95 which is greater than the tabled value (3.94) for (1, 99) degrees of freedom at 0.05 level of significance and less than the tabled value (6.90) for (1, 99) for degrees

of freedom at 0.01 level of significance. Hence, the main effect of achievement-motivation on spiritual intelligence is significant at 0.05 level of significance.

The obtained F-value for the main effect of emotional intelligence on spiritual intelligence for the total sample is 4.063 which is greater than the tabled value (3.94) for (1, 99) degrees of freedom at 0.05 level of significance. Hence, the main effect of emotional intelligence on spiritual intelligence is also significant at 0.05 level.

Further, the obtained F-value for the combined effect of sex and achievement-motivation is 5.057 which is greater than the tabled value (3.94) for (1, 99) degrees of freedom at 0.05 level of significance. Hence, the combined effect of sex and achievement-motivation is also significant at 0.05 level. The combined effect of achievement-motivation, and emotional intelligence is 1.1009 which is less than the tabled value (3.94) for (1, 99) degrees of freedom at 0.05 level of significance. Hence, the combined effect of achievement-motivation and emotional intelligence on spiritual intelligence is insignificant. The calculated F-value of combined effect of sex and emotional intelligence is 0.05 which is less than the tabled value (3.94) for (1, 99) degrees of freedom at 0.05 level of significance. Hence, the combined effect of sex and emotional intelligence on spiritual intelligence is also insignificant.

Furthermore, the obtained F value for triple interaction of sex, achievement-motivation, and emotional intelligence on spiritual intelligence is 0.527 which is less than the tabled value (3.94) for (1, 99) degrees of freedom at 0.05 level of significance. Hence, the triple interaction effect of sex, achievement-motivation, and emotional intelligence on spiritual intelligence is found to be non-significant.

In order to test the levels of independent variables such as achievement –motivation and emotional intelligence at which the significant differences occur, the ‘t’- test has been used.

The Table -4 points out that high achievement-motive pupil teachers group differ significantly with low achievement-motive pupil-teachers group whereas the difference between high and low achievement-motive pupil-teachers groups are found significant.

The Table -5 indicates that high emotionally intelligent pupil teachers group differs significantly with their counterparts whereas the difference between high and low emotionally intelligent pupil teachers is found significant.

As F-test is significant for the main effects of achievement-motivation, and emotional intelligence, protected ‘t’-test has also been calculated to find out the significance of difference

between spiritual intelligence scores of the different levels of achievement-motivation and that of emotional intelligence.

Table 6, it is clear that the high and low achievement-motivation pupil-teachers differ significantly at 0.05 level of significance on spiritual intelligence scores. Perusal means values make it evident those high achievement-motive pupil-teachers in their spiritual intelligence are better than their counterparts.

Table-7 reveals that high and low emotionally intelligent pupil teachers differ significantly at 0.05 level on spiritual intelligence scores. Perusal means values make it evident that high emotionally intelligent pupil teachers in their spiritual intelligence are better than in comparison to their low emotionally intelligent pupil teachers.

Discussion: An analysis of the results pertaining to hypotheses second, third, and fourth indicates the values of F-ratios is (5.41), (4.05), and (4.67) respectively which are significant at 0.05 level of significance. So the second, third, and fourth are accepted and the values of F- ratio pertaining to first, fifth, sixth and seventh hypotheses are (0.00012), (1.58), (0.05), and (0.74) which are non-significant. So the first, fifth, sixth and seventh hypotheses are rejected.

Nasrabadi etal (2013) supporting the findings that the capability of implementing spiritual resources has had the highest influence on the motivation for educational improvement. Authors such as Zohar & Marshall (2004), Dhingra etal (2005) and Kaur etal (2012) found emotional intelligence is related to spiritual intelligence. The first hypothesis which is not significant, found support of findings of Jeloudar etal (2013), Khorshidi & Ebaadi (2012), and Kaur & Singh (2013) that gender does not influence on spiritual intelligence.

The hypotheses are accepted in cases of the main effects of Achievement-motivation and emotional intelligence as well as combined effect of sex, and achievement-motivation and the hypotheses are rejected in cases of main effect of sex, as well as the first order except sex, and achievement-motivation and second order interactions. This means that achievement-motivation, emotional intelligence, and (sex x achievement-motivation) have significant effect on spiritual intelligence of pupil –teachers while sex, (achievement-motivation x emotional intelligence), (sex x emotional intelligence), as well as (sex x achievement-motivation x emotional intelligence) have no significant effect on spiritual intelligence of pupil-teachers.

Conclusion: On the basis of the above findings, it is concluded that

1. There is no significant effect of sex on spiritual intelligence of pupil- teachers. In other words it may be concluded that the male and female pupil-teachers are almost similar in their spiritual intelligence.
2. There is significant effect of academic-motivation on spiritual intelligence of pupil-teachers. In other words, it may be concluded that the high achievement-motive pupil-teachers are better than their counterparts in their spiritual intelligence.
3. There is significant effect of emotional intelligence on spiritual intelligence of pupil-teachers. In other words, it may be concluded that highly emotionally intelligent pupil – teachers are better than low emotionally intelligent pupil-teachers with respect to their spiritual intelligence.
4. Combined effect of sex and achievement-motivation interact significantly in relation to spiritual intelligence of pupil-teachers. In other words, it may be concluded that on spiritual intelligence variable the difference between male and female high achievement-motive pupil-teachers are better than the difference between male and female low achievement- motive pupil-teachers.
5. Achievement-motivation and emotional intelligence do not interact significantly in relation to spiritual intelligence of pupil-teachers. In other words, it may be concluded that there is no combined effect of achievement-motivation and emotional intelligence on spiritual intelligence of pupil-teachers.
6. Sex and emotional intelligence do not interact significantly in relation to spiritual intelligence of pupil-teachers In other words, it may be concluded that there is no combined effect of sex, and emotional intelligence on spiritual intelligence of pupil-teachers.
7. Sex, achievement-motivation and emotional intelligence do not interact significantly in relation to spiritual intelligence of pupil-teachers. No triple interaction effect of sex, achievement-motivation, and emotional intelligence on spiritual intelligence is found.

In brief, it is concluded that the main effects of achievement-motivation and emotional intelligence as well as combined effect of sex and achievement-motivation on spiritual intelligence of pupil-teachers are found to be significant whereas the main effect of sex as well as the various combined interactions of achievement-motivation and emotional intelligence, and sex and emotional intelligence along with triple interaction of sex, achievement-motivation and emotional intelligence on spiritual intelligence of pupil-teachers are found to be non-significant.

Educational Implication: Most importantly, the present study suggests that the Pupil-Teachers would assess their own personal worth or competencies on basis of internal and external evidences for the development of the society. In abroad, a lot of research works has been done on spiritual intelligence, but in India particularly in the field of teacher education, a little research work has been done. The present study contributes to review of literature in the field of Indian educational system regarding teacher education. The present study also suggests that some of the pupil-teachers possess a high achievement-motive and some of them possess a low achievement-motive. At the same time, they have a low spiritual intelligence. Thus, they will have to make continuously and uninterrupted efforts to develop spiritual intelligence through achievement-motivation, and emotional intelligence. The teacher-educators can regulate positive emotions such as love, sympathy, co-operation, joy and pleasure and can control negative emotions such as angers, anxiety, sadness, disappointments etc. in their students in teaching-learning situation for attaining ultimate aim of education for wellbeing of the persons of the society.

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Appendix

Table-1 : Details of the Sample Data

Sex / Achievement-Motivation/Emotional Intelligence	A ₁		A ₂		Total
	C ₁	C ₂	C ₁	C ₂	
B ₁	13	10	17	12	52
B ₂	12	9	12	15	48
Total	25	19	29	27	100

A₁ = Male pupil-teachers A₂ = Female pupil-teachers

B₁ = High Achievement-Motive pupil-teachers B₂=Low Achievement-Motive pupil-teachers

C₁ = High Emotionally Intelligent pupil-teachers C₂=Low Emotionally Intelligent pupil-teachers

Analysis of Data

Table – 2 Cell (N, Means)

	A ₁ (Male)		A ₂ (Female)	
	C ₁	C ₂	C ₁	C ₂
B ₁	13 (57.15,)	10 (51.8,)	17 (58.82)	12 (55.92)
B ₂	12 (54.5,)	9 (55.56,)	12 (52.58)	15 (51.4)
Total	25	19	29	27

Table-3

Summary of ANOVA (2 X 2 X 2) of Sex, Achievement-Motivation, and Emotional Intelligence on Spiritual Intelligence

	Source of Variation	Sum of Square	df	Mean Square	F-Ratio	Level of Significance
A	Sex	0.005	1	0.005	0.00012	NS
B	Achievement-Motivation	245.25	1	245.25	5.95	0.05
C	Emotional Intelligence	167.38	1	167.38	4.063	0.05
AXB	Sex x Achievement-Motivation	208.365	1	208.365	5.057	0.05
BXC	Achievement-Motivation x Emotional Intelligence	45.359	1	45.359	1.1009	NS
AXC	Sex x Emotional Intelligence	2.07	1	2.07	0.05	NS
AxBxC	Sex x Achievement-Motivation x Emotional Intelligence	21.716	1	21.716	0.527	NS
	Between Treatment	690.145	7	98.59		
	Within Treatment	3790.415	92	41.2		
	Total	4480.56	99			

Table- 4 ‘t’ – Ratio for the Different Levels of Achievement-Motivation

Levels of Achievement-	N	Mean	S.D.	S.Ed	t Value	Level of Significant

Motivation						
High	52	52.77	3.97	0.9589721	15.60	0.01
Low	48	37.31	5.44			

Table-5 : Mean SI Scores of the Different Levels of Achievement-Motivation

Levels of Achievement-Motivation	N	Mean	S.D.	S.Ed	t Value	Level of Significance
High	52	56.71	6.96	1.3083842	2.48	0.05
Low	48	53.46	6.12			

Table-6: ‘t’ test for the Different Levels of Emotional Intelligence

Levels of Emotional Intelligence	N	Mean	S.D.	S.Ed	t Value	Level of Significant
High	54	162.65	14.28	2.694535	15.29	0.01
Low	46	121.46	12.66			

Table-7: Mean SI Scores of the Different Levels of Emotional Intelligence

Levels of Emotional Intelligence	N	Mean	S.D.	S.Ed	t Value	Level of Significant
High	54	56.35	7.20	1.31	1.99	0.05
Low	46	53.74	5.92			