# Dimensions of Human Intelligence

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**Abstract**—*At the beginning of twentieth century, as psychologists exposed ways and means to measure intelligence, Aristotle's definition of man as "a rational animal" developed into an obsession with IQ. In the mid 1990's, Daniel Goleman popularized research into emotional intelligence (EQ), explaining that EQ is a fundamental requirement for the appropriate use of IQ. At the end of twentieth century, there is growing collective evidence that there is a third Q i.e. 'SQ', or Spiritual Intelligence.*

**Key word**: *Intelligence Quotient (IQ), Emotional Quotient (EQ) and Spiritual Quotient (SQ).*

## INTRODUCTION

Since the beginning of the 20th century, modern psychology has attempted at large to explore human intelligence and proposed a number of significant empirical conclusions on the scientific measurement of the human intelligence (Nevo, 1997). At that time human Intelligence was equated with IQ (Intelligence Quotient) and Psychologists devised a test that could measure individual's IQ scores, and these tests were used to sort out the one who is most intelligent. By the 1960's, IQ tests and scores became very controversial as that the test was measuring a particular kind of Intelligences, such as rational, logical, and linear intelligence, whereas this kind of intelligence only used to solve certain kinds of logical problems and become very constructive for strategic thinking (Zohar & Marshall, 2004).

Since the dawn of humanity, a man's endeavor has been to lead a prosperous, happy and peaceful life. In pursuit of improving his quality of life, illusions prompted him to chiefly amass wealth. The belief that materialistic possessions alone will bring happiness and respectability leads to disillusionment albeit, materialistic pursuit is a reality. The world is now moving rapidly towards a newer learning and awakening to build reliance on spirituality in varying degrees. A satisfying life can only be led through achieving a balance between materialism and spirituality.The intelligences constitute the human intellectual toolkit. Unless grossly impaired, all human beings possess the capacity to develop the several intelligences. At any one moment, we will have a unique profile, because of both genetic (heritability) and experiential factors. Identical twins will have similar cognitive profiles. But the profiles will not be identical; even though the genetic constitution is the same, identical twins have different experiences once born; they can be motivated to distinguish themselves from their genetic clone.The foundation of human intelligence theories originated from the Greek philosophy. The nature of human intelligence is considered one of the most and highly debatable areas of Psychological theory and research (Solos & Reiss, 2005). The concept of human intelligence has been defined in several ways, including the abilities of reasoning, understanding, Problem solving, abstract thought, learning and planning. In Psychology, the term "human intelligence" is used to describe an ability to apply knowledge in order to manipulate one's environment or to think in the abstract to solve problems. Zohar & Marshall (2000) also stated that this type of intelligence is one of the most desirable human behavioristic qualities in today's society. This assumption is consistent with the views of many researchers e.g. Gould and Gould (1994) and Zohar and Marshal (2004) that human intelligence can be perceived as an essential key to success in life.



**Theory of multiple intelligence**
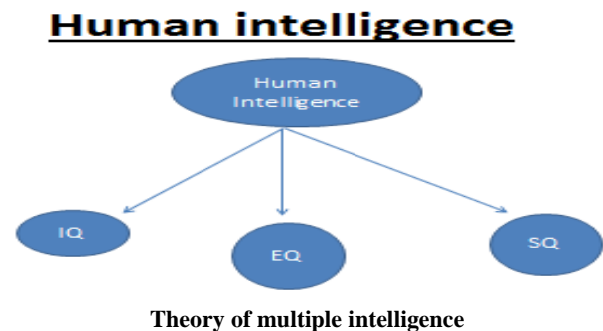
The theory of multiple intelligence was discovered by Howard Gardner as a model of human intelligence, which stated that each type of intelligence provides a theoretical foundation for recognizing the different talents and abilities that people possess. Gardner (1993) and Zohar & Marshall (2000) asserted that the different types of human intelligence are anatomically separated from each other. Indeed they are widely used concurrently and complemented one another as skills develop. People have different strengths and intelligences. For example, students who are "interviewed" as a means to gain access to a course may be mis-labeled as being less than desirable because of inappropriate assessment (poorly written interview questions, bias toward a perceived

"perfect student," and other narrow criteria). "In life, we need people who collectively are good at different things. A well-balanced world, and well-balanced organizations and teams, are necessarily comprised of people who possess different mixtures of intelligences. This gives that group a fuller collective capacity than a group of identical able specialists" (businessballs.com, 2009). Gardner's multiple intelligences theory can be used for curriculum development, planning instruction, selection of course activities, and related assessment strategies. Instruction which is designed to help students develop their strengths can also trigger their confidence to develop areas in which they are not as strong. Students' multiple learning preferences can be addressed when instruction includes a range of meaningful and appropriate methods, activities, and assessments Gardner says that these differences "challenge an educational system that assumes that everyone can learn the same materials in the same way and that a uniform, universal measure suffices to test student learning. Indeed, as currently constituted, our educational system is heavily biased toward linguistic modes of instruction and assessment and, to a somewhat lesser degree, toward logical-quantitative modes as well." Gardner argues that "a contrasting set of assumptions is more likely to be educationally effective. Students learn in ways that are identifiably distinctive. The broad spectrum of students - and perhaps the society as a whole - would be better served if disciplines could be presented in a numbers of ways and learning could be assessed through a variety of means." The learning styles are as follows: Visual-Spatial - think in terms of physical space, as do architects and sailors. Very aware of their environments. They like to draw, do jigsaw puzzles, read maps, and daydream. They can be taught through drawings, verbal and physical imagery. Tools include models, graphics, charts, photographs, drawings, 3-D modeling, video, videoconferencing, television, multimedia, texts with pictures/charts/graphs. Bodily-kinesthetic - use the body effectively, like a dancer or a surgeon. Keen sense of body awareness. They like movement, making things, touching. They communicate well through body language and be taught through physical activity, hands-on learning, and acting out, role playing. Tools include equipment and real objects. Musical - show sensitivity to rhythm and sound. They love music, but they are also sensitive to sounds in their environments. They may study better with music in the background. They can be taught by turning lessons into lyrics, speaking rhythmically, and tapping out time. Tools include musical instruments, music, radio, stereo, CD-ROM, multimedia. Interpersonal - understanding, interacting with others. These students learn through interaction. They have many friends, empathy for others, street smarts. They can be taught through group activities, seminars, and dialogues. Tools include the telephone, audio conferencing, time and attention from the instructor, video conferencing, writing, computer conferencing. Intrapersonal - understanding one's own interests, goals. These learners tend to shy away from others. They're in tune with their inner feelings; they have wisdom, intuition and motivation, as well as a strong will, confidence and opinions. They can be taught through independent study and introspection. Tools include books, creative materials, diaries, privacy and time. They are the most independent of the learners. Linguistic - using words effectively. These learners have highly developed auditory skills and often think in words. They like reading, playing word games, making up poetry or stories. They can be taught by encouraging them to say and see words, read books together. Tools include computers, games, multimedia, books, tape recorders, and lecture. Logical -Mathematical - reasoning, calculating. Think conceptually, abstractly and are able to see and explore patterns and relationships. They like to experiment, solve puzzles, and ask cosmic questions. They can be taught through logic games, investigations, and mysteries. They need to learn and form concepts before they can deal with details. At first, it may seem impossible to teach to all learning styles. However, as we move into using a mix of media or multimedia, it becomes easier. As we understand learning styles, it becomes apparent why multimedia appeals to learners and why a mix of media is more effective. It satisfies the many types of learning preferences that one person may embody or that a class embodies. A review of the literature shows that a variety of decisions must be made when choosing media that is appropriate to learning style. But humans have several other significant intellectual capacities. In original book, He described musical intelligence, bodily-kinesthetic intelligence, interpersonal (social) intelligence, and intrapersonal intelligence (understanding of self). A few years later, He added the naturalist intelligence: the capacity to make consequential distinctions in the world of nature. I also have speculated about two other possible intelligences: existential intelligence/spiritual intelligence, the intelligence of 'big questions'; and pedagogical intelligence, the intelligence that allows human beings to convey knowledge or skills to other persons.

**Intelligence Quotient (IQ):-**It was discovered in the early 20th century. It is rational, logical, rule-bound, problem-solving intelligence which can be tested with Stanford-Binet Intelligence scales. It was believed that higher a person's IQ, higher the abilities but it is true no longer with other intelligences impacting the abilities of a man. Brewer, Mark (2008) endorses that people who successfully tackle the big issues of life are not always the ones blessed with great mental aptitude. These achievers possess something that is superior to sheer intellect.

The Concept of IQ is actually one of the most robustly debated topics within intelligence theory. In fact, little consensus were found on the definition of intelligence whereby, Neisser, Boodoo, Bouchard, Boykin, Brody, Ceci, Halpern, Loehlin, Perloff, Sternberg, &Urbina, (1996), Sternberg (1997) and Pinker (1997) define intelligence as the ability to attain goals in the face of obsticals by means of decisions based on rational rules. In addition, Chiu, Hong and Dweck (1994), define intelligence as the level of skills and

knowledge currently available for problem-solving. On top of that, Emmons (2000), given some specific domains of intelligence which are : breadth of knowledge, depth of knowledge, Performance accomplishments, automaticity or ease of functioning, skilled performance under challenging conditions, generative flexibility, and speed of learning and developmental change. It was indicated that IQ is the primary intelligence through which a human being has logically understand situations. In present situation, High IQ alone does not guarantee that a person can solve all the problems effectively in Professional or Personal life.Hence, Cherniss (2010) argued that success in work and life depends on more than just the basic cognitive abilities typically measured by IQ tests and related measures but it also depends on a number of personal qualities that the perception, understanding, and regulation of emotion.

**Emotional Quotient (EQ):** Back in 1990, the concept of EQ was first coined by Salovey and Mayer (1990) and the researcher argued that emotional quotient (EQ) is a type of social intelligence, that is individual ability to monitor their own and others emotions, to discriminate among them and to use that information to guide their thinking and actions. Emotional quotient has its roots in the notion of social intelligence as first proposed by Thorndike in 1920. Later on, the idea was popularized by Daniel Goldman's best-selling book Emotional Intelligence (1995), in which he claims that EQ is beyond the IQ and has significant effect on person's life outcomes. Mayer and Salovey (1997) have conceptualized emotional quotient as a set of mental abilities concerned with emotions and the processing of emotional information. Intelligently, controlling the emotions of oneself and understanding the emotions of others in any environment could be sooth full in achieving ones goals (Mayer &Salovey, 2005). In the structure of Intelligence quotient and Emotional quotient, the concept self i.e. (self-realization) is being disappeared and Hence, in the recent time researcher postulated the threshold of human intelligence goes beyond EQ , some influential frameworkthat is beyond IQ and EQ i.e. SQ. Goleman, Daniel (1998) referred to emotional intelligence as "the capacity for recognizing our feelings and those of others, for motivating ourselves, and for managing emotions well ourselves and in our relationships".  A comprehensive theory of emotional intelligence was proposed in 1990 by two psychologists, Peter Salovey and John Mayer, define emotional intelligence in terms of being able to monitor and regulate one's own and other's feelings, and to use feeling to guide thought and action.Goleman, Daniel has highlighted the following five emotional competencies (the term emotional competency includes both social and emotional competencies):-

(a) Self-awareness: knowing what we are feeling in the moment, and using those preferences to guide our decision making; having a realistic assessment of our own abilities and a well-grounded sense of self-confidence.

(b) Self-regulation: Handling our emotions so that they facilitate rather than interfere with the task at hand; being conscientious and delaying gratification to pursue goals; recovering well from emotional distress.

(c) Motivation: Using our deepest preferences to move and guide us towards our goals, to help us to take initiative and strive to improve, and to persevere in facing the setbacks and frustration.

(d) Empathy: Sensing what people are feeling, being able to take their perspective, and cultivating rapport and attunement with a broad diversity of people.

(e) Social Skill: handling emotions in relationships well and accurately, reading social situations and networks; interacting smoothly; using these skills to persuade and lead, negotiate and settle disputes, cooperation and teamwork

**SPIRITUAL INTELLIGENCE (SQ):-**According to Wink and Dillon (2002), spiritual intelligence (SQ) is built through the accumulation of separate experiences, that is, individuals increasingly experience an expanded commitment to engage in actual spiritual practices. In addition, Ronel and Gan (2008) define SQ as an ability to understand the world and oneself through God-centeredness and to adapt one's life accordingly. In fact, it is a basic ability that shapes and directs all other abilities and there are several attributes of SQ , such as faith, humility, gratitude, integrative ability, the ability to regulate emotions, morality and the ability for moral conduct, and the ability for forgiveness and love, are portrayed in a non-inclusive description. On top of that, Nachiappan et al. (2014), define SQ as the abilities to act accordingly, being empathy and intelligent to maintain internal and external freedom without considering any conditions. On the other hand, Zohar and Marshall (2004) and Rousseau (2014) interpret SQ as the intelligence with which we access our deepest meanings, values, purposes, and highest motivations in positive ethical spectrum. Therefore, in short, SQ means the ability to behave with wisdom and compassion while maintaining inner and outer peace (equanimity) regardless of the circumstances (Wigglesworth, 2011). Spirituality encompasses the way an individual lives out his or her sense of interconnectedness with the world through an ability to tap into deep resources comprising truth, service, and wholeness reflecting self-awareness and unity (Howard, 2002).

From the literature, it is evident the number of dimensions or components has been recommended and validated by scholars in defining the concept of spiritual intelligence. In the context of present study the core components of spiritual intelligence (i.e., wisdom, sense of community, and sense of meaning) are adopted from literature as these variables are widely accepted while defining the concept in the body of knowledge. In brief, several authors advocate that spiritual intelligence is the wisdom intelligence and consider it as a holistic expression of spiritual intelligence (Rovers &Kocum, 2010; Zohar & Marshall, 2004). Moreover, Vaughan (2002)

reported that spiritual maturity is expressed through person's wisdom and compassionate deeds that would contribute to the holistic development of the human. Recent scholarship provides compelling correlations between spirituality and good business (Brophy, 2014; Geh, 2014), and it has gained the interest of both scholars and practitioners (Hicks, 2003; Kinjerski & Skrypnek, 2008; Krisha kumar& Neck, 2002). In addition, Karakas (2010) confirmed that the incorporation of spirituality at work increases employees 'Well-being by increasing their morale, commitment, and Productivity; and decreases employees stress, burnout, and work holism in the workplace.

**Danah Zohar defined 12 principles underlying spiritual intelligence:-**

- Self-awareness: Knowing what I believe in and value, and what deeply motivates me.

- Spontaneity: Living in and being responsive to the moment.

- Being vision and Value-led –and value-led: Acting from principles and deep beliefs, and living accordingly.

- Holism: Seeing larger patterns, relationships, and connections; having a sense of belonging.

- Compassion: Having the quality of "feeling-with" and deep empathy.

- Celebration of diversity: Valuing other people for their differences, not despite them.

- Field independence: Standing against the crowd and having one's own convictions.

- Humility: Having the sense of being a player in a larger drama, of one's true place in the world.

- Tendency to ask fundamental "Why?" questions: Needing to understand things and get to the bottom of them.

- Ability to reframe: Standing back from a situation or problem and seeing the bigger picture or wider context.

- Positive use of adversity: Learning and growing from mistakes, setbacks, and suffering.

- Sense of vocation: Feeling called upon to serve, to give something back.

**Cindy Wigglesworth defines spiritual intelligence**

"The ability to act with wisdom and compassion while maintaining inner and outer peace, regardless of the circumstances." She breaks down the competencies that comprise SQ into 21 skills, arranged into a four quadrant model similar to Daniel Goleman's widely used model of emotional intelligence or EQ. The four quadrants of spiritual intelligence are defined as:

1. Higher Self/Ego self Awareness

2. Universal Awareness

3. Higher Self/Ego self Mastery

4. Spiritual Presence / Social Mastery
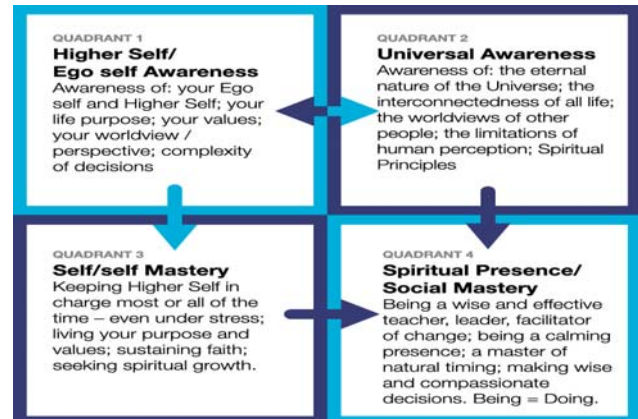


## CORE ABILITIES OR CAPACITIES OF SPIRITUAL INTELLIGENCE

1. Critical Existential Thinking: The capacity to critically contemplate the nature of existence, reality, the universe, space, time and other existential/metaphysical issues; also the capacity to contemplate non-existential issues in relation to one's existence (i.e., from an existential perspective).

2. Personal Meaning Production: The ability to derive personal meaning and purpose from all physical and mental experiences, including the capacity to create and master a life purpose.

3. Transcendental Awareness: The capacity to identify transcendent dimensions/patterns of the self ( i.e., a transpersonal or transcendent self), of others, and of the physical world ( e. g., non-materialism) during normal states of consciousness, accompanied by the capacity to identify their relationship to one's self and to the physical.

4. Conscious State Expansion: The ability to enter and exit higher states of consciousness (e.g. pure consciousness, cosmic consciousness, unity, oneness) and other states of trance at one's own discretion (as in deep contemplation, meditation, prayer, etc.).

**Milton Hay's four dimensions of spirituality:**

- Community is the human environment in which spiritual development occurs. One's spiritual community can include, but is not limited to, one's family, friends, church or other religious organization, coworkers, or classmates. The community dimension, like the other three dimensions of spirituality, is, by its nature, highly personal and individualized.

- Meaning fosters spiritual development through its exploration. Spirituality develops within the context of a search for answers about and meaning in life, death, pain, nature, love, or any number of other seemingly inexplicable concepts or experiences. Often, through the spirituality developed in the search for meaning, one may achieve a certain peace with existence that lessens the importance of intellectual answers to the aforementioned difficult concepts.

- Religious needs are what shape one's search for meaning. Subscription to or rejection of different religious philosophies alters one's approach to the search for meaning and can shape the resulting conclusions. Also, certain religious rites and rituals can be used as means of expressing spirituality.

- Inner resources are the senses, emotions, and personal abilities that one must access and strengthen in order to enhance one's chances of transcending difficulties through spirituality in order to fully participate in the spiritual act of living. Inner resources may be evoked out through such activities as prayer, yoga, meditation, reflection, lovemaking, exercise, singing, and laughter.

**Key methods to learn and develop Spiritual Intelligence:-**

There are certain methods to unlearn the illusions and misperceptions which stop you seeing who you are and being true to yourself. The more these methods are practiced the faster the realization and the deeper the development of the spiritual intelligence.

- Meditation: Meditation is the cultivation of self-awareness. In the meditative process you learn about yourself. Meditation will also help you restore the ability to control your thoughts and feelings, sharpen your ability to discern truth from illusion, and thereby make more intelligent choices.

- Detached Observation: This is the ability to disengage from the world of action and interaction outside yourself, and to disengage from the world of thoughts and feelings within your consciousness. It is not avoidance of either world, but a way to see more clearly and therefore understand more deeply what is actually happening. This practice is also essential in order not to 'waste' energy at mental and emotional levels, where much of your tiredness has its origins.

- Reflection: This involves taking time out on a daily basis to review and re-assess past experiences of the interactions with others. This allows the self/soul to build awareness of the connection between inner world of thoughts and feelings and the outer world of action and the consequences of those actions.

- Connecting: There is a higher source of spiritual power and it is possible to connect with that source and empower oneself. This accelerates the developmental process increasing both the depth and breadth of your spiritual intelligence. Energy absorbed from the Supreme Source is essential to clearing the inner clutter and to focus your consciousness.

- Practice: New learning, new insights, new realizations are only theories and have no power to change your life unless they are brought into action, allowed to shape new behaviors, and then perfected in the process of expression. Practical action is essential to sustaining the momentum of developing spiritual intelligence.

- Seeing: Spiritual vision is learning to see only the best in others and by doing so empowering others to develop the best in themselves. From a spiritual point of view seeing is creating – how you see the 'other' is how you will create the other within you, which will be both a reflection of how you see yourself at that moment and the quality of the energy you will regain.

**CONCLUSION**

At the beginning of twentieth century, as psychologists exposed ways and means to measure intelligence, Aristotle's definition of man as "a rational animal" developed into an obsession with IQ. In the mid 1990's, Daniel Goleman popularized research into emotional intelligence (EQ), explaining that EQ is a fundamental requirement for the appropriate use of IQ. At the end of twentieth century, there is growing collective evidence that there is a third Q i.e. 'SQ', or Spiritual Intelligence. Zohar and Marshall(2001)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 one life path is more meaningful than another Use of spiritual resources on practical problems, enhance virtuous behavior-forgiveness, gratitude, humility, compassion and wisdom. Therefore the investigator felt to improve SQ of trainee teachers Interdisciplinary relevance Spiritual Intelligence is relatively a new construct of psychology. A person with high SQ might practice any religion, but without narrow-mindedness prejudice or discrimination. Equally a person with high SQ could have very spiritual qualities without being religious at all. Both IQ and SQ work with the confines of existing information and known. Only SQ is capable of thinking beyond the known. No subject can be taught in isolation and so is the case with Spiritual Intelligence. Spiritual Intelligence has to a considerable extent become integrated with various streams of knowledge, which enables people to guide their life. An attempt has been made in recent years to bring about an integrated curriculum which has helped to bring various subjects closer but no efforts has been made in teacher education syllabus. The concept of Spiritual Intelligence is interdisciplinary in nature. It has related to

human nature. It co-relates with Philosophy, Psychology, Sociology, Civics and our day to day life. Spiritual Intelligence contributed a lot to the social and mind advancement of our society.

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