## Effect of Learning Styles on the Self-concept of Future Teachers

### Shamsa Aziz, Ph.D.,  Naushaba Atta, Ph.D. and Hamid Hassan, Ph.D.

**Abstract**

Present study identified the learning styles and assessed the self-concept of future teachers enrolled in the teacher education programs of different universities of Rawalpindi and Islamabad. Effect of learning styles on self-concept was also explored. Two instruments, one learning style inventory and other a five point self-concept rating scale were used to collect the data. Results of data analysis showed that there is a significant difference in the self-concept of sensory thinkers, sensory feelers, intuitive thinkers, and intuitive feelers. Majority of the respondents were sensory thinkers with lowest self-concept. It is recommended that teacher training institute should make such arrangements where students can be treated according to their learning styles and which can be helpful in enhancing their self-concept.

**Key Words**    Learning styles, Self-concept, Future teachers, Teacher education

**Introduction**

Learning depends upon many factors, some of which may be personal and a lot are environmental. Different people learn in different manners. Some prefer one way while others may prefer some other ways. These different ways and preferences are referred as learning styles. Today's students of teacher education are the future teachers. There is a need to identify their learning style so that they can be taught accordingly. Knowledge of the learning style and effects of learning styles on other constructs has much importance in the field of education.

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Blackmore (1996) suggested that one of the first thing educators can do to aid learning process is to simply become aware of the fact that there are diverse learning styles in the population.

Self-concept is the one's perception about his abilities and capabilities .If someone perceives himself as being able to perform certain task; the prospects of his success are higher than one who is not confident about his abilities. So it is also very essential to explore and enhance the self-concept of the future builders of the nation because it is an established fact that the persons having high self-concept can help in boasting the self-concept of the young ones especially who are being influenced by them in one or other way (may be students or own kids)

## What is learning?

Learning can be explained as how one observes the environment around him and how he reacts to the environment; these experiences brings change in one's behavior This change in behavior can be labeled as learning. Educationists and psychologists defined learning in different ways. Rauf (2000) defines learning as it is not only acquiring knowledge and information but it is a wide and comprehensive concept which embraces the full education of a child in the widest possible world while according to Buskist and Carlson (1997) an adaptive process in which the tendency to perform a particular behavior is changed by experience.

## Learning Styles

Every individual learn in his own way that can be known as his learning style. Bennet (1990) stated that learning styles reflect generic coding, personality development, motivation and environmental adoption while Keefe (1979) was of the view that is the composite of cognitive, affective and physiological factors that serve as relatively stable indication of how a learner perceives, interacts and responds to the learning environment.

## Awareness of Learning Style

Individuals differs in their learning styles, they prefer to learn in a variety of different ways. Each style of learning has its unique strength and weakness. If one is aware of his own learning style than it would seem logical to assume that process of learning can become effective. Rayners and Riding (1997) describe three stages of the awareness process of one's learning style. Initially the person is unaware of his style gradually the person gains awareness of style and its possible implications in life. This leads to the self-actualization.

## Models of Learning Styles

Over the years psychologists and educationists have proposed different models to understand and explain the learning styles of individuals. Some important models are

- **Instructional and environmental model**

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Dunn & Dunn (1978) proposed the main theory of instructional and environmental preference and gave five learning styles i.e. environmental, emotional, sociological, physiological and psychological.

- **Social interaction mode**

According to this model there are six types of learners due to their learning styles; independent learners, dependent learners, collaborative learners, competitive learners, participant learners and avoidant learners

- **Information processing model**

Main theorist of this model is Kolb. Kolb (1976) claimed that there are four modes to identify types of learners which are converge learners, diverge learners, assimilator learners and accommodator learners.

- **Cognitive and personality model**

Witklan (1954) developed two broad categories of learners i.e. field dependent and field independent learners

- **Thoughtful educational model**

This model is given by Silver and Hanson. Silver and Hanson (1996) gave learning styles preference model with four styles labeled as mastery or sensory thinkers, interpersonal or sensory feelers, understanding or intuitive thinkers and self-expressive or intuitive feelers. These learning styles can be found in every person with varying degrees.

i) **Sensory thinkers**

They like to complete their work in an organized and efficient manner. They tend to be neat, well organized and precise in their work. They need immediate feedback. They proffered step by step directions and clearly structured environment that focus on factual mastery of skills and an opportunity to apply them to something practical or demonstrate proficiency.

ii) **Sensory feelers**

They are sensitive to their own and others' feelings. They prefer to learn about things that directly affect people's lives rather than facts or theories. They take a personal approach to learning. They work best when emotionally involved. They prefer cooperation to competition, needs assurance or praise that lets them know they are doing well. They are greatly influenced by the likes and dislikes of others

iii) **Intuitive thinkers**

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They tend to be challenged intellectually and think things through for themselves. They are curious about ideas, like theory and complex problems. They approach learning in a logical, organized, systematic fashion. They are concerned about being correct and strive for perfection.

### iv) Intuitive feelers.

They are the ones who dare to dream, are committed to their values, are open to alternatives and are constantly searching for new and unusual ways to express them. They are eager to explore ideas, generate new solutions to problems and discuss moral dilemmas. They are flexible in thoughts and actions. They are not likely to be disturbed by changes in routine and they are comfortable working with a minimum of directions.

## What is Self?

Self is an Anglo Saxon word, which originally means same or identical. The answer to the question "who am I?" leads us towards the definition of self. The concept of self has originated with the origin of personality theories.

## Components of Self

Vasta , Haith and Miller (1992) states that self is embedded in a system of interrelated processes, some that affect it and others that are affected by it. These processes have been identified as self-system. The self-system has been divided into three components.

- o Self-knowledge.
- o Self-evaluation.
- o Self-regulation.

## Self-concept

It is at first a simplistic awareness of one self and one's capacities generalized across all situations but as one grows older the self-concept becomes more complex and differentiated into sub facets that have to do with self in different situations

## Development of Self-concept

Shavelson & Bolus (1982) describes that self-concept develops through constant self-evaluation in different situations. Children and students are always asking themselves; how I am doing?  In the beginning they estimate by the reactions of parents and family members and by friends, school mates and teachers. In the later years when they make judgments, they compare their performance with their own standards and with performance of peers. .

## Factors Effecting the Development of self-Concept

Factors which can affect the self-concept of individuals are learning, language, identification, social feedback, parent-child relationship, teacher pupil relationships, peer

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relationships, physique, aptitude and temperament, personal success and failure or need for positive regard. Vasta., Haith & Miller (1992) is of the view that major determinant of students' self-concept is their academic performance; those who learn well obviously do well in studies & develop high opinion of the competence, and poor performers develop low opinions. The feedback that they receive for their work and the way they interpret it also create positive effects on their self-images while Guay. Marsh & Boivin (2003) made a study to indicate that achievement has an effect on self-concept and academic self –concept has an effect on achievement. The results showed that as the children grow older their academic self-concept responses become more reliable, more stable and more strongly co related with academic achievement. Rehman (2001) also found correlation between self-concept scores and academic achievement of students.

Although achievement of students depends upon many factors but perhaps more important is the learning and its related aspects. August, Ryctlak & Felker (1975) carried out a study on 134 students of $5^{th}$ graders (72 females and 62 males) students. Findings of the research showed a significant relationship between children's self-concept and learning of verbal material. It was also concluded that children with high self-concept learned more effectively

Thomas (1990) gave a broader concept, he is of the opinion that overall self-concept is related to the scope of experience that one accumulates with oneself.

It is simply the duty of teacher educator to identify learning styles of the future teachers, level of their self-concept and any cause-effect relationship between the learning style and self-concept, so that their learning potential as students and as future teachers can be enhanced by adopting different strategies matching their learning styles, and in turn increasing their self-concept so they can become self-confident and effective future teachers as Showers (1992) states that individual with high self-esteem tend to focus on their strengths where as their low self-esteem counterparts are more likely to dwell on their negative qualities or weak nesses.

**Methodology**

**Population**

All the students of teacher education programs in the different universities of Rawalpindi & Islamabad were the population of the study

**Sample**

All the available students on the day of data collection were included in the study, at the time of data cleaning it came into notice that there were some respondents did not provide the complete and proper information those were excluded from study .The actual sample size was 180.

**Instruments**

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Two instruments one preferred learning style inventory of Silver and Hanson (1996) and other a five point self-concept rating scale were administered to collect the data.

Learning style inventory was used to identify the proffered learning style of the sampled future teachers. This inventory was consisted upon 26 statements followed by four choices A, B. C & D .Every choice had four circles numbered 1 to 4. Respondents had to rank each and every choice in order so that they fill circle 1 for their first choice, circle 2 for second choice and so on. Ranking assigned to each choice had to be converted in to scores. A score of 5 'for first preference, 3 for second, 1 for third and zero for fourth was to be assigned. At the end scores for all A,B, C and D had to be summed up ,giving four scores for each individual indicating his scores for four learning styles i.e.,  mastery or sensory thinkers, interpersonal or sensory feelers, understanding or intuitive thinkers and self-expressive or intuitive feelers. Individual's highest score out of these four scores showed his preferred learning style.

For analyzing the self-concept of future teachers a five point likert type 36 itemed comprising on six factors self-concept scale for adults of Stake (1994) was used. The six-factors were likeability, morality, task accomplishment, giftedness, power and vulnerability.

1. **Likeability** It pertains to qualities of interpersonal accessibility, the capacity to foster pleasant and enjoyable relation with others i.e. fun to be with, friendly, sociable, pleasant, warm and easy to talk to.
2. **Morality** It reflects qualities universally valued as good and virtuous; these qualities are not specific to national, religious or ethnic groups i.e. loyal, truthful, law-abiding, faithful, trustworthy and honest.
3. **Task accomplishment** Having good work habit, ability to manage, complete tasks efficiently and capably i.e. hard worker, productive, plans ahead, can concentrate well on a task, works efficiently and good at meeting deadlines.
4. **Giftedness** Having innate talents and natural ability, as distinguished from learned skills and achievements i.e. a natural talent, creative, has special talents, bright and ingenious and has innate ability.
5. **Power** Having qualities of strength, leadership and persuasiveness. Ability to influence others effectively i.e. dominant, strong, acts as a leader, powerful, aggressive and forceful.
6. **Vulnerability** Self-criticalness, difficultly performing under pressure and tendency to feel criticized by others i.e. easily embarrassed, lacks confidence, self-conscious, easily rattled when people are watching, and makes mistakes when flustered, easily hurt and % of shared communality.

**Data analysis**

**Table # 1        Descriptive statistics**

| Group | N | Mean | | | | | | |
|-------|---|------|------|------|------|------|------|------|
|       |   | L | M | G | T.A | P | V | S.C Total |
| S.T | 109 | 23.10 | 27.60 | 18.94 | 20.60 | 15.73 | 22.44 | 128.41 |
| S.F | 23 | 24.70 | 30.26 | 22.09 | 22.35 | 17.13 | 22.74 | 139.26 |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **I. T** | 20 | 23.30 | 30.10 | 20.60 | 21.95 | 17.40 | 22.10 | 135.45 |
| **I.F** | 28 | 23.25 | 30.57 | 21.39 | 21.71 | 16.46 | 25.51 | 138.50 |
| | 180 | | | | | | | |

Sensory thinkers were in the greatest number among the sampled future teacher who had lowest mean score on self-concept scale and its sub scales except vulnerability while intuitive thinkers are least in number, Sensory feelers had highest score on self-concept and on likeability, giftedness and task accomplishment sub scales.

**Table # 2      Difference among different types of learners on self-concept**

| | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| **Likability** | Between Groups | 48.741 | 3 | 16.247 | .732 | .534 |
| | Within Groups | 3904.209 | 176 | 22.183 | | |
| | Total | 3952.950 | 179 | | | |
| **Morality** | Between Groups | 325.981 | 3 | 108.660 | 3.317 | .021 |
| | Within Groups | 5765.330 | 176 | 32.758 | | |
| | Total | 6091.311 | 179 | | | |
| **Giftedness** | Between Groups | 281.603 | 3 | 93.868 | 4.498 | .005 |
| | Within Groups | 3672.974 | 176 | 20.869 | | |
| | Total | 3954.578 | 179 | | | |
| **Task accomplishment** | Between Groups | 88.124 | 3 | 29.375 | 1.627 | .185 |
| | Within Groups | 3178.120 | 176 | 18.058 | | |
| | Total | 3266.244 | 179 | | | |
| **Power** | Between Groups | 74.320 | 3 | 24.773 | 3.084 | .029 |
| | Within Groups | 1413.657 | 176 | 8.032 | | |
| | Total | 1487.978 | 179 | | | |
| **Vulnerability** | Between Groups | 172.469 | 3 | 57.490 | 2.223 | .087 |
| | Within Groups | 4551.776 | 176 | 25.862 | | |
| | Total | 4724.244 | 179 | | | |
| **Self-concept Total** | Between Groups | 4032.143 | 3 | 1344.048 | 4.055 | .008 |

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| | Within Groups | 58336.807 | 176 | 131.459 | | |
|---|---|---|---|---|---|---|
| | Total | 62368.950 | 179 | | | |

There is a significant difference among the sensory thinkers, sensory feelers, intuitive thinkers and intuitive feelers on self-concept and three of its sub scales i.e morality, giftedness and power. While there is no significant difference on likeability, task accomplishment and vulnerability sub scales

As there were significant differences among the groups on different subscales and on self- concept scale so a Post-Hoc test LSD was run

**Table # 3      Multiple comparison on self-concept**

| Dependent variable | Learning Styles | Mean Difference | p  value |
|---|---|---|---|
| Morality | Sensory Thinker v.s Sensory Feelers | 2.665 | .044 |
| | Sensory Thinker v.s Intuitive Feelers | 2.975 | .15 |
| Giftedness | Sensory Thinker v.s Sensory Feelers | 3.142 | .003 |
| | Sensory Thinker v.s intuitive  Feelers | 2.448 | .012 |
| Power | Sensory Thinker v.s Sensory Feelers | 1.396 | .033 |
| | Sensory Thinker v.s Intutive Thinker | 1.666 | .017 |
| Self-concept Total | Sensory Thinker v.s Sensory Feelers | 10.848 | .010 |
| | Sensory Thinker v.s Intutive Feelers | 10.087 | .010 |

Results of Post-Hoc test showed that the sensory feelers are significantly different from intuitive thinkers and sensory feelers

**Findings**

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- More than 50% future teachers were sensory thinkers
- Highest mean scores on self-concept is of sensory feelers while lowest mean score is of sensory thinkers
- There is a significant difference among the four groups on morality, giftedness and power subscales of self-concept
- There is a significant difference among the four groups on self-concept total scores
- Sensory thinkers are significantly different from sensory feelers and intuitive feelers on morality, giftedness, power and self-concept total

## Conclusions

- Future teachers are mostly sensory thinkers and they are significantly different from sensory feelers and intuitive feelers
- Sensory thinkers have lowest self-concept

## Discussion and Recommendations

It is concluded from the research that majority of the future teachers are sensory thinkers with lowest self-concept, so there is a need to increase their self-concept. As sensory thinkers are organized and need immediate feedback along step by step directions and structured environment, they focus on factual mastery of skills and an opportunity to demonstrate proficiency therefore it is recommended that teacher education institute may provide structured environment, curriculum should be skill based and there must be maximum opportunities for the practical application and demonstration of these skills. It is also recommended that teacher educators should provide directions and step wise instructions. There must be an immediate feedback along instructions for improvement. Environment of educational institutions should be maintained in such away by the teacher educators and administration which encourages the future teachers, by highlighting their achievements especially their acquired and demonstrated skills (both job related and other life skills) through educational exhibitions, seminars, workshops etc. All these activities on the part of teacher education institutions, curriculum developers and teacher educators will increase the self-concept of future teacher.

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