



## **Identification Of Preferred Learning Styles Of Farmers Using Learning Style Inventory**

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### **ABSTRACT**

*Learning is a happening and every learner is unique. Their learning process is distinctive. This study attempted to understand the preferred learning styles of the farmers using learning style inventory developed for the study. A sample of hundred and twenty farmers was taken for the study from two districts of Telangana state. The survey results showed that the predominant learning style of most of the respondents was Pragmatist/Converger learning style and the least predominant learning style was Read and Write learning style which clearly indicates that the farmer prefer practical oriented learning rather than theoretical learning.*

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### **INTRODUCTION**

The idea that people learn differently is venerable and probably educators have for many years noticed that some individuals prefer certain styles of learning in acquiring knowledge and skills. Learning is an important characteristic of human beings as we know that humans continue to learn till the end of their lives. Learning style is a way a person sorts, absorbs, processes and retains an information. It refers to the individuals consistent way of responding to and using stimuli in the context of learning. Individuals differ in their styles of learning. According to Honey and Mumford (1992) in his study suggests that learning preferences should be measured as this will provide an opportunity to match an individual's learning style preferences to learning activity to improve learning outcomes and to modify the preferred learning style as each individual has their own preference of learning stimulus and these differences have to be identified and reflected in the selection and use of teaching methods by extension personnel.

### **MATERIALS & METHODS**

There are about five different psychological learning style models available, namely Honey and Mumford learning style model, Kolb's learning style model, Neil-Flemings learning style i.e., Visual, Auditory, Read & Write, Kinesthetic (VARK) model, Felder-Silverman learning style model and Myers Briggs Type Indicator (MBTI) learning style model.

According to Kolb's learning style model (1984) the four major categories of learning styles are Accomodators, Convergors, Divergers and Assimilators. These four distinct learning styles were based on four stage cycle of experiential learning i.e., Concrete experience(CE) - feeling, Abstract conceptualization(AC) - thinking, Active experimentation(AE) - doing and Reflective observation(RO) - watching. The combination of these two choices produces a preferred learning style namely Accomodating (CE/AE), Diverging (CE/RO), Converging (AC/AE) and Assimilating (AC/RO) which helps to understand the individuals different learning styles and also experiential based learning.

Honey and Mumford learning style model (1982) consists of four distinct learning styles i.e., Activist, Reflector, Theorist and Pragmatist which is similar to that of Kolb's learning style with slight variation that probes general behavioural tendencies of the individual regarding how they really learn.

The other learning style namely Neil-Flemings (VARK) learning style model (1992) is affective in dimension which is of perceptual in nature. The four distinct preferred learning styles according to this model includes Visual, Auditory, Read & Write and Kinesthetic learning. which explains the individual

preferred, consistent and distinct way of perceiving, organizing and retaining information towards learning environment.

Felder-Silverman learning style model (1988) asserts that individuals have preferences along five bipolar continuum i.e., Active-Reflective, Sensing-Intuitive, Verbal-Visual, Sequential-Global and Intuitive-Deductive approaches towards different styles of learning.

Myers Briggs Type indicator (MBTI) learning style model (2000) indicates a person's preference on each of the four dichotomous dimensions namely Extroversion-Introversion, Sensing-Intuition, Thinking-Feeling and Judging-Perceiving which helps in understanding the individual differences in learning and it ascertains that personality plays an important role in determining ones learning style.

The above five different learning styles which are noted were taken as base for developing the learning style inventory for the study.

Out of five different learning styles three learning styles namely Honey and Mumford learning style model, Kolb's learning style model and Neil-Flemings learning style i.e., Visual, Auditory, Read & Write, Kinesthetic (VARK) model were considered by the researcher based on the review and relevancy towards the learning styles of the farmers. As farmers prefer different modes of learning, depending upon the situation and their experience level, rather than being dominantly restricted to one mode. Taking this in to consideration a common learning style inventory was developed which consists of similar statements from that of Kolb's learning style and Honey and Mumford learning style by substituting the terms Reflectors/Divergers (reflective observation), Theorists/Assimilators (abstract-conceptualization), Pragmatist/Convergers (concrete experience) and Activist/Accomodators (active experimentation), Visual learners, Auditory learners, Read & Write learners and Kinesthetic learners. Thus a total of eight learning styles were considered for the learning style inventory. After consultation with the judges and experts and review of literature.

Under each learning style eight statements were prepared initially. Then eight statements were selected under each learning style based on the relevancy towards the above learning styles after consultation with the judges and experts of the related field. Thus for eight learning styles a total of sixty four statements were included in the inventory.

The Learning style inventory developed for the study

**Activist/ Accomodators :**

1. I learn by doing.
2. I would like to learn by experiences which I like.
3. I learn enthusiastically about anything which is new to me
4. I often act without considering the possible consequences.
5. I talk more than I listen.
6. I prefer action oriented learning.
7. I learn by trial and error rather than thought and reflection.
8. I like to participate in activities

**Theorists/ Assimilators :**

9. I tend to solve problems using a step-by-step approach
10. I like to relate my actions to a general principle.
11. I believe that rational, logical thinking should win the day.
12. I prefer exploring analytical models, charts, concepts and facts in order to engage in the learning process.
13. I think problems through in a vertical, step-by-step logical way.
14. I get attracted to logical sound theories rather than practical value.
15. I prefer to pull a number of different observations and thoughts into an integrated whole while learning.
16. I am interested in ideas and abstract concepts over people

**Pragmatist/ Convergers :**

17. I feel that what matters most is whether something works in practice.
18. When I hear about a new idea or innovations I immediately start working out how to apply it in practice.
19. I believe in coming to the point immediately.
20. I put forward practical, realistic ideas.
21. I tend to reject wild, spontaneous ideas as being impractical.
22. I am practical in learning in making practical decisions and solving problems.
23. I respond to problems and opportunities 'as a challenge'.
24. My philosophy is "There is always a better way" and "If it works it's good".

**Reflector/ Divergers :**

25. I like to understand the theory behind the actions.
26. I am careful not to jump to conclusions too quickly.
27. I listen to other people's points of view before putting my own forward.
28. I like to ponder many alternatives before making up my mind
29. I'm more likely to adopt a 'low profile' than to take the lead and do most of the talking in discussions.
30. I do listening rather than the talking.
31. My philosophy is to be cautious.
32. I enjoy observing other people in action.

**Visual Learners ;**

33. I can remember diagrams and pictures while learning
34. I can learn by seeing rather than by hearing.
35. I have trouble remembering verbal instruction
36. To understand ideas and concepts I prefer diagrams and charts
37. When something is being described, I prefer to have a picture to view.
38. I prefer a time-line or some other similar diagram to remember historical event
39. I am good at observing things
40. I prefer photographs and illustrations with printed content.

**Auditory Learners :**

41. I learn best through hearing things
42. I learn best through verbal instruction, discussions, talking things and listening to what Others have to say.
43. I prefer listening about a situation, express emotions verbally.
44. I prefer lectures and group discussions
45. I can remember through recording lectures
46. I am good at explaining the things that I have listened during group discussion
47. I can interpret the underlying meaning of speech by listening
48. I prefer verbal directions over written ones

**Read and write Learners :**

49. I enjoy reading
50. I often take notes during lecture
51. I learn best in quietly
52. I like articulate teachers who put a lot of information in to sentences and notes
53. I will organize diagrams/ graphs in to statements
54. I prefer turning of reactions, actions, charts etc in to words
55. I often put the information acquired in to writing them down in my own words
56. I prefer to rewrite the things that I have learned

**Kinesthetic learners**

57. I learn by touch and handling things
58. I prefer direct involvement in the activity
59. I like to do things rather than read about the things.
60. I tend to lose concentration if there is little or no external stimulation or movement
61. I enjoy problem solving by doing things
62. I like to try new things
63. I prefer not to sit still while learning
64. I remember best what has been done, not what they have seen or talked about.

The preferred learning styles of farmers using learning style inventory developed for the study was measured using dichotomous response categories viz., I do and I donot. The weightages were given to these responses were 1 and 0. For negative statements weightages given to the responses were reversed i.e., 0 and 1 respectively. The total scores of each individual learning styles was worked out by summing up all the scores under each learning style i.e., under 8 learning styles 8 total scores of each respondent was arrived. The respondents were categorized into following three categories low, medium and high based on exclusive class interval method. The respondents were rank ordered based on farmers learning style inventory scores. The frequency of respondents under each learning style was identified and thus for 8 Learning styles 8 ranks were given. Results were expressed in the form of frequencies and percentages under each preference.

**RESULTS AND DISCUSSION**

The preferred learning styles of farmers was surveyed by using a learning style inventory developed for the study. It was observed that majority (57.50%) of the respondents had medium level of preference to the different learning styles followed by high (28.33%) and low (14.17%) level of preference to different learning styles.

**Table 4.1. Distribution of respondents based on their preference scores to different learning styles developed for the study (N=120)**

S.No	Category	Class Interval	Frequency	Percentage
1.	Low level of preference to different learning styles	28 - 36	17	14.17
2.	Medium level of preference to different learning styles	36 - 44	69	57.50
3.	High level of preference to different learning styles	44 - 52	34	28.33
Total			120	100.00

It can be evident from the Table. 4.1, that majority of the respondents had medium level of preference to different learning styles followed by high and low. It might be due to the fact that each and every individual has their own unique style of learning hence their preferences may differ, their own style of learning might have matched with that of the existing learning styles, most of the farmers might have felt that the above learning styles were suitable to their learning situation, By following the above learning styles their ability to learn might have increased as they could learn easily were the probable reasons for the respondents to fall under medium followed by high and low.

In order to study in detail regarding the individual individual preferred/predominant learning style given by the respondents towards each learning styles.preferences.The frequency of respondents preferring each learning style was identified and enlisted in the below Table 4.2. where the results were depicted in the form of frequencies and percentages under each learning style.

By scrutinizing the Table 4.2 it could be revealed that about (31.6%) of the respondents preferred Pragmatist/Convergers learning style as 1<sup>st</sup> predominant learning style followed by (29.1%) Auditory learning style, (23.3%) Kinesthetic and Visual learning style, (20.8%) Theorist/Assimilator learning style, (20.0%) Activist/Accomodator learning style, (18.3%) Reflector/Divergers learning style and (9.1%) preferred Read&Write learning style.

Under 2<sup>nd</sup> preference (30.8%) of the respondents predominant learning style was Visual learning style, followed by (28.3%) Pragmatist/ Convergers learning style while (27.5%) Activist/ Accomodator &Kinesthetic learning style, (26.6%) Theorist/Assimilator learning style, (20.8%) reported Auditory learning style, (18.3%) Reflector/Divergers learning style and (17.5%) as Read&Write learning style.

Under 3<sup>rd</sup> preference (29.1%) of the respondents predominant learning style was Reflector/Divergers learning style followed by (28.3%) Read&Write learning style, (27.5%) Activist/Accomodator learning style, (26.6%) Theorist/Assimilator learning style, (21.6%) Visual &Kinesthetic learning style, (20.0%) Pragmatist/Convergers learning style and (18.3%) preferred Auditory learning style.

Under 4<sup>th</sup> preference (29.1%) of the respondents predominant learning style was Read&Write learning style followed by (20.8%) Reflector/Divergers learning style, (18.3%) Theorist/Assimilator, Kinesthetic and Auditory learning styles, (15.8%) Activist/Accomodator learning style, (12.5%) Pragmatist/Convergers learning style and (10.8%) preferred Visual learning style.

**Table 4.2.Rank ordering of learning styles based on farmers learning style inventory scores (N=120)**

Learning styles	Rank 1		Rank 2		Rank 3		Rank 4		Rank 5		Rank 6		Rank 7		Rank 8	
	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Activist/Accomodators	24	20.0	33	27.5	33	27.5	19	15.8	9	7.5	2	1.66	-	-	-	-
Theorist/Assimilators	25	20.8	32	26.6	32	26.6	22	18.3	10	8.3	-	-	-	-	-	-
Pragmatists/Convergers	38	31.6	34	28.3	24	20.0	15	12.5	4	3.3	3	2.5	-	-	-	-
Reflectors/Divergers	22	18.3	22	18.3	35	29.1	25	20.8	11	9.1	2	1.6	-	-	-	-
Visual Learners	28	23.3	37	30.8	26	21.6	13	10.8	4	3.3	3	2.5	-	-	-	-
Auditory Learners	35	29.1	25	20.8	22	18.3	22	18.3	12	10.0	3	2.5	1	0.8	-	-
Read&Write Learners	11	9.1	21	17.5	34	28.3	35	29.1	8	6.6	8	6.6	-	-	-	-
Kinesthetic learners	28	23.3	33	27.5	26	21.6	22	18.3	9	7.5	9	7.5	-	-	-	-

Under 5<sup>th</sup> preference (10.0%) of the respondents predominant learning style was Auditory learning style followed by (9.1%) preferred Reflector/Divergers learning style, (8.3%) Theorist/Assimilator, (7.5%) Activist/Accomodator&Kinesthetic learning style, (6.6%) Read&Write learning style and (3.3%) preferred Pragmatist/Convergers& Visual learning style.

Under 6<sup>th</sup> preference it was found that (7.5%) of the respondents predominant learning style was Kinesthetic learning style followed by (6.6%) Read&Write learning style, (2.5%) Pragmatist/Convergers, Visual & Auditory learning style, (1.6%) Activist/Accomodator& Reflector/Divergers learning style, where as the respondents did not prefer Theorist/Assimilator learning style as their 6<sup>th</sup> preference.

None of the respondents had preferred these learning styles as their 7<sup>th</sup> and 8<sup>th</sup> preferences except (0.8%) of the respondents preferred Auditory learning style as their 7<sup>th</sup> preference.

Hence it was also revealed that more than one learning style was preferred by most of the respondents in the study as no single learning style would yield better result by the respondents for their effective learning.

## CONCLUSION

Hence the extension personnel inspite of using different extension teaching methods for the transfer of technology should focus on these extension teaching methods preferred by the farmers according to their preferred learning style for the better transfer of technology ultimately resulting in effective learning and adoption of technology by the farmers.

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