



# A Study On Attitude Towards Digital Self Learning Materials Of Prospective Teachers In Relation To Their Learning Style

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**Citation:** Ms.I. Thenmozhi, et al (2024) A Study on Attitude Towards Digital Self Learning Materials of Prospective Teachers In Relation To Their Learning Style. *Educational Administration: Theory and Practice*, 30(1), 6927-6932  
Doi: 10.53555/kuey.v30i1.10163

## ARTICLE INFO

## ABSTRACT

Digital Self Learning Materials are materials preferred by learners by using digital resources and tools for their independent learning and it enables them to control their rate and speed and style of learning and they are specifically used by students in higher education sector in online learning here . Digital Self Learning Materials are created to make easy of personalized learning and permitting students for accessing and engaging with study materials and subject content in their own convenience and swiftness. The main objective of Digital Self Learning Materials is empowering students to hold possession of their learning activities and giving autonomy and flexibility to access and master in new skills and knowledge. The outcomes elucidate that attitude towards digital self learning materials is differing significantly amidst profile of prospective teachers excluding subject group and father's education. Attitude towards digital self learning materials of prospective teachers is having significant, positive and substantial relation with their Verbal Reproducing (VR) and Verbal Constructive (VC) Learning Style. Hence, prospective teachers should acquire knowledge on different digital techniques and tools for preparing digital self learning materials that will improve their attitude towards digital self learning materials. Prospective teachers must generate interest among them for preparing and using digital self learning materials for their personal learning and teaching activities and also for enhancing their attitude towards digital self learning materials. Prospective teachers should improve their competence in making and efficiently using digital self learning materials for their effective learning and teaching practices that will increase their attitude towards digital self learning materials. Colleges of Education must create digital friendly classroom atmosphere to their prospective teachers for discussion and interaction with their colleagues and faculty members to enhance their attitude towards digital Self Learning Materials. In addition, family members should give their support and assistance for their prospective teachers to improve their attitude towards digital self learning materials and all these suggestions will enhance learning style of prospective

**Key Words:** Attitude, Digital Self Learning Materials, Learning Style, Prospective Teachers

## 1. INTRODUCTION.

In present era of digitalization, large quantum of information is available and in order to access and use those digitally available information, Digital Literacy is the necessary skills to students for differentiating useful and useless information for their personalized and effective learning, assessing dependable sources for learning and also omitting false or inaccurate information relating to different subjects and topics (Castellvi et al 2020). Digital Literacy is the capacity of students for efficiently using digital technology and decisively for searching, accessing, processing and making use of pertinent information for their personal learning and also assessing their progress in learning by using digital technology (Onger and Cetin, 2018).

Self Learning is a kind of approach for learning which is encouraging students to organize, manage and assess their learning by their own efforts (Silamut and Petsangsri, 2020) and involves capabilities of students for efficiently using resources and time and developing and adopting efficient strategies for their personal learning (Hasan et al 2023). Self Learning is providing ample of opportunities to students for developing critical thinking abilities because they are highly responsible for their learning (Choi et al 2014). Students are holding control on using resources, objectives of their learning and monitoring and evaluating their improvement in learning (Sanova et al 2022). Digital Literacy is highly important to students for creating digital self learning materials in order to attain objectives of their self learning. The combination of Digital Literacy and Self Learning is providing basic and critical notion for development of digital self learning materials for effective and flexible personalized learning among students.

Digital self learning materials are materials preferred by learners by using digital resources and tools for their independent learning (Feola, 2016) and it enables them to control their rate and speed of learning (Dastjerdi and Ahmed, 2019) and style of learning and they are specifically used by students in higher education sector in online learning atmospheres. Digital self learning materials are created to make easy of personalized learning and permitting students for accessing and engaging with study materials and subject content in their own convenience and swiftness. The main objective of digital self learning materials is empowering students to hold possession of their learning activities and giving autonomy and flexibility to access and master in new skills and knowledge (Hauck, 2019).

Digital self learning materials are easily accessible and used by students in all time at their convenience and making learning as highly effective and they are concentrating on certain areas where they require more attention and support and learn more new information on the topics and subjects they already understand something (Kang et al 2020). Digital self learning materials are highly cost effective and easy to make and distribute among students as compared to conventional printed learning materials (Sanova et al 2022). Besides, Digital self-learning materials are extremely interactive and multimedia components are making learning highly involved and enjoyable.

Digital self learning materials are mainly affected by features and type of students, ease of make and use and personal interest in learning through digital self-learning materials, and digital skills and knowledge of students (Shutaleva et al 2019). Digital self learning materials is prepared by using digital resources in combination of digital tools and techniques and they are affecting engagement, motivation, learning style and development of knowledge (Silamut and Petsangsri, 2020) and performance of students. Digital self learning materials are getting higher degree of acceptability among higher education students. Thus, it is highly imperative to study attitude towards digital self learning materials of prospective teachers in relation to their learning style in the existing digitalized educational atmosphere.

## 2. REVIEW OF RELATED STUDIES

Li et al (2025) found that college students had moderate level of attitude on digital self directed learning materials and it had positively affected effectiveness of their self directed learning in online mode.

Elmabaredy and Gencel (2024) concluded that attitude on digital self regulated learning materials was moderate and it had positive and significant relation with performance of university students in their academics.

Li and Wu (2023) revealed that university students were having moderate degree of attitude on online self directed learning materials and it was differing among their gender significantly and it had positive and significant influence on their outcome as a result of learning.

Shao et al (2022) indicated that most of university students were having moderate degree of attitude on online self directed learning materials and it had positively predicted their flow.

Renjhen and Kumar (2021) showed that first year medical students had higher level of attitude on learning materials sharing through whatsapp in their self learning and it was varying among their age and usage of internet and it had improved their experience in learning.

Mishra et al (2020) found that post graduate students had moderate degree of attitude on online self directed learning materials and it was differing among their discipline significantly.

El-Nabawi and Shaalan (2019) concluded that English department university students had low level of attitude on digital self learning materials and it had significantly affected their learning activities.

Thongsan et al (2018) revealed that senior nursing students had moderate degree of attitude on online self regulated learning materials and it had enhanced creative problem solving ability among them.

Yot-Domínguez and Marcelo (2017) indicated that university students had low level of attitude towards digital self regulated learning materials and it was significantly varying with regarding to their intensity of use and it had positively influenced their effectiveness of learning.

Barak et al (2016) showed that engineering undergraduate students moderate level of attitude towards online study materials in their self regulated learning and it had affected their cognitive transfer skills.

## 3. OBJECTIVES OF THE STUDY

1. To scrutinize difference amidst attitude towards digital self learning materials and Gender, Subject Group and Type of College of Prospective Teachers.

2. To examine difference amidst attitude towards digital self learning materials and Location of College, Medium of Instruction and Father's Education of Prospective Teachers.
3. To explore relation amidst attitude towards digital self learning materials and learning style of prospective teachers.

#### 4. HYPOTHESES OF THE STUDY

1. There is no significant difference amidst attitude towards digital self learning materials and Gender, Subject Group and Type of College of Prospective Teachers.
2. There is no significant difference amidst attitude towards digital self learning materials and Location of College, Medium of Instruction and Father's Education of Prospective Teachers.
3. There is no significant relation amidst attitude towards digital self learning materials and learning style of prospective teachers.

#### 5. RESEARCH METHODOLOGY

The current study is conducted amongst the districts of Chennai, Kancheepuram and Tiruvallur in Tamil Nadu. Prospective Teachers are randomly chosen and data are received from 910 of them by employing questionnaire method. Attitude towards Digital Self Learning Materials Scale (SEICTS) constructed and validated by **Ms. I. Thenmozhi** and **Dr.V. Sharmila** in the year 2024 and Learning Style Inventory (LSI) developed and standardized by **Dr. Karuna Shankar Misra** in the year 2012 are used in the study. Percentages, t and ANOVA tests and correlation analysis are used for analysis of data.

#### 6. RESULTS

##### 6.1. PROFILE OF PROSPECTIVE TEACHERS

The profile of Prospective Teachers is given in Table-1.

**Table-1. Profile of Prospective Teachers**

Profile	Frequency(n=910)	%
<b>Gender</b>		
Male	403	44.29
Female	507	55.71
<b>Subject Group</b>		
Arts	318	34.95
Science	592	65.05
<b>Type of College</b>		
Government	108	11.87
Government Aided	285	31.32
Self-Finance	517	56.91
<b>Location of College</b>		
Urban	490	53.85
Rural	420	46.15
<b>Medium of Instruction</b>		
Tamil	361	39.67
English	549	60.33
<b>Fathers' Education</b>		
Informal	104	11.43
School	302	33.19
College	504	55.38

From the above table, it is evident that 55.71% of Prospective Teachers are females, whilst, 44.29% of them are males, 65.05% of them are in science group, whilst, 34.95% of them in arts group and 56.91% of them are studying in self finance colleges, whilst, 11.87% of them are studying in Government colleges.

From the above table, it is also apparent that 53.85% of them are studying in colleges located in urban area, whilst, 46.15% of them are studying in colleges located in rural area, 60.33% of them are in English medium, whilst, 39.67% of them are in Tamil medium and 55.38% of their fathers are having college education, whilst, 11.43% their fathers are having informal education.

## 6.2. PROFILE OF PROSPECTIVE TEACHERS AND ATTITUDE TOWARDS DIGITAL SELF LEARNING MATERIALS

The difference amidst profile of Prospective Teachers and their Attitude towards Digital Self Learning Materials is given as below.

### 6.2.1. Gender and Attitude towards Digital Self Learning Materials

The difference amidst gender of Prospective Teachers and their Attitude towards Digital Self Learning Materials is given in Table-2.

**Table-2. Gender and Attitude towards Digital Self Learning Materials**

Gender	N	Mean	SD	t-value	Level of Significance
Male	403	136.65	11.01	12.086	0.01
Female	507	148.79	17.62		

Female Prospective Teachers (Mean=148.79) are having higher Attitude towards Digital Self Learning Materials than Male Prospective Teachers (Mean=136.65). Attitude towards Digital Self Learning Materials is differing significantly amidst gender of Prospective Teachers because of significant t-value ( $t=12.086$ ) at 1% level.

### 6.2.2. Subject Group and Attitude towards Digital Self Learning Materials

The difference amidst subject group of Prospective Teachers and their Attitude towards Digital Self Learning Materials is given in Table-3.

**Table-3. Subject Group and Attitude towards Digital Self Learning Materials**

Subject Group	N	Mean	SD	t-value	Level of Significance
Arts	318	142.68	15.24	1.001	0.05
Science	592	143.81	16.71		

Prospective Teachers in Science group (Mean=143.81) are holding slightly higher Attitude towards Digital Self Learning Materials than Prospective Teachers in Arts group (Mean=142.68). Attitude towards Digital Self Learning Materials is not differing significantly amidst subject group of Prospective Teachers due to non significant t-value ( $t=1.001$ ).

### 6.2.3. Type of College and Attitude towards Digital Self Learning Materials

The difference amidst type of college of Prospective Teachers and their Attitude towards Digital Self Learning Materials is given in Table-4.

**Table-4. Type of College and Attitude towards Digital Self Learning Materials**

Type of College	N	Mean	SD	F-value	Level of Significance
Government	108	148.72	21.41	6.782	0.01
Government Aided	285	143.08	15.45		
Self-Finance	517	142.49	15.15		

Prospective Teachers studying in Government Colleges (Mean=148.72) are possessing higher Attitude towards Digital Self Learning Materials than Government Aided (Mean=143.08) and Self Finance Colleges (Mean=142.49). Attitude towards Digital Self Learning Materials is differing significantly amidst type of college of Prospective Teachers as an outcome of significant F-value ( $F=6.782$ ) at 1% level.

### 6.2.4. Location of College and Attitude towards Digital Self Learning Materials

The difference amidst location of college of Prospective Teachers and their Attitude towards Digital Self Learning Materials is given in Table-5.

**Table-5. Location of College and Attitude towards Digital Self Learning Materials**

Location	N	Mean	SD	t-value	Level of Significance
Urban	490	141.45	14.60	3.978	0.01
Rural	420	145.70	17.65		

Prospective Teachers studying in Rural Colleges (Mean=145.70) are owning higher Attitude towards Digital Self Learning Materials than Prospective Teachers studying in Urban Colleges (Mean=141.45). Attitude towards Digital Self Learning Materials is differing significantly amidst location of college of Prospective Teachers by reason of significant t-value ( $t=3.978$ ) at 1% level.

### 6.2.5. Medium of Instruction and Attitude towards Digital Self Learning Materials

The difference amidst medium of instruction of Prospective Teachers and their Attitude towards Digital Self Learning Materials is given in Table-6.

**Table-6. Medium of Instruction and Attitude towards Digital Self Learning Materials**

Medium of Instruction	N	Mean	SD	t-value	Level of Significance
Tamil	361	141.59	14.43	2.760	0.01
English	549	144.61	17.19		

Prospective Teachers studying in English Medium (Mean=144.61) are holding higher Attitude towards Digital Self Learning Materials than Prospective Teachers studying in Tamil Medium (Mean=141.59). Attitude towards Digital Self Learning Materials is differing significantly amidst medium of instruction of Prospective Teachers because of significant t-value ( $t=2.760$ ) at 1% level.

### 6.2.6. Father's Education and Attitude towards Digital Self Learning Materials

The difference amidst father's education of Prospective Teachers and their Attitude towards Digital Self Learning Materials is given in Table-7.

**Table-7 Father's Education and Attitude towards Digital Self Learning Materials**

Father's Education	N	Mean	SD	F-value	Level of Significance
Informal	104	142.12	18.46	1.773	0.05
School	302	144.81	14.03		
College	504	142.84	16.89		

Prospective Teachers with Father's Education of School Education (Mean=144.81) are possessing higher Attitude towards Digital Self Learning Materials than College (Mean=142.84) and Informal (Mean=142.12) Education. Attitude towards Digital Self Learning Materials is not differing significantly amidst father's education of Prospective Teachers due to non significant F-value ( $F=1.773$ ).

## 6.3. RELATION AMIDST ATTITUDE TOWARDS DIGITAL SELF LEARNING MATERIALS AND LEARNING STYLE OF PROSPECTIVE TEACHERS

The relation amidst Attitude towards Digital Self Learning Materials and Learning Style of Prospective Teachers was studied by employing correlation analysis and the outcome is given in Table-8.

**Table-8. Attitude towards Digital Self Learning Materials and Learning Style**

Particulars	Correlation Coefficient
Attitude towards Digital Self Learning Materials and Verbal Reproducing (VR) Learning Style	0.617**
Attitude towards Digital Self Learning Materials and Verbal Constructive (VC) Learning Style	0.561**

\*\* Significance in 1% level

The coefficient of correlation amidst Attitude towards Digital Self Learning Materials and Verbal Reproducing (VR) Learning Style of Prospective Teachers is 0.617 and it reveals that they have significant, positive and substantial relation among them.

The coefficient of correlation amidst Attitude towards Digital Self Learning Materials and Verbal Constructive (VC) Learning Style of Prospective Teachers is 0.561 and it implies that they have significant, positive and substantial relation among them.

## 7. CONCLUSION

The foregoing study reveals that Attitude towards Digital Self Learning Materials is differing significantly amidst profile of Prospective Teachers excluding subject group and father's education. Attitude towards Digital Self Learning Materials Prospective Teachers is having significant, positive and substantial relation with their Verbal Reproducing (VR) and Verbal Constructive (VC) Learning Style. Hence, Prospective Teachers should acquire knowledge on different digital techniques and tools for preparing Digital Self Learning Materials that will improve their Attitude towards Digital Self Learning Materials. Prospective Teachers must generate interest among them for preparing and using Digital Self Learning Materials for their personal learning and teaching activities and also for enhancing their Attitude towards Digital Self Learning Materials. Prospective Teachers should improve their competence in making and efficiently using Digital Self Learning Materials for their effective learning and teaching practices that will increase their Attitude towards Digital Self Learning Materials. Colleges of Education must create digital friendly classroom atmosphere to their Prospective



Teachers for discussion and interaction with their colleagues and Faculty Members to enhance their Attitude towards Digital Self Learning Materials. In addition, family members should give their support and assistance for their Prospective Teachers to improve their Attitude towards Digital Self Learning Materials and all these suggestions will enhance Learning Style of Prospective Teachers.

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