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Research Article

Knowledge And Skills In Mobile Photography Among Botany Teachers At Higher Secondary Level

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ABSTRACT

Mobile photography is the modern trend inevitable in every aspects of human life. Gone were the days when people were asking for film rolls and camera to take photos. Ever since the film rolls were replaced by digital space, taking photos and storing it has become more user friendly. Everyone started recording any event in their digital cameras. Once the camera phone came into existence, it has become more ready to use category. Mobile manufacturers like Nokia, Samsung, Redme, realme, Oppo, i phone and others started introducing different varieties with more options like more Zoom length and flash, multiple cameras for wider views etc. It also started increasing mega pixel. It also started giving more clarity. The social media like instagram is known for more picture clarity and people are using it for spreading content to people. Having seen mobile photography's benefits in the field of botany is manifold. It should be unveiled. So, it has become the natural quest of the researcher to undertake the present study. The objectives of the study are to find out the level of knowledge and skills in mobile photography among higher secondary teachers and to find out the significant difference in knowledge and skills in mobile photography among higher secondary teachers in terms of gender and age. The investigator used the knowledge and skills in mobile photography test prepared and validated by the investigator. The investigator has followed stratified random sampling method for the present study. The investigator has collected a sample of 80 higher secondary teachers in Dharmapuri district. The findings of the study reveal that the level of knowledge and skills on mobile photography among higher secondary

teachers is high. There is significant difference in the knowledge and skills in mobile photography among higher secondary teachers in terms of gender and age.
KEY WORDS: KNOWLEDGE, SKILLS, MOBILE PHOTOGRAPHY, BOTANY, HIGHER SECONDARY LEVEL

NEED FOR THE STUDY

Mobile photography is the modern trend inevitable in every aspects of human life. Gone were the days when people were asking for film rolls and camera to take photos. Ever since the film rolls were replaced by digital space, taking photos and storing it has become more user friendly. Everyone started recording any event in their digital cameras. Once the camera phone came into existence, it has become more ready to use category. Mobile manufacturers like Nokia, Samsung, Redme, realme, Oppo, i phone and others started introducing different varieties with more options like more Zoom length and flash, multiple cameras for wider views etc. It also started increasing mega pixel. It also started giving more clarity. The social media like instagram is known for more picture clarity and people are using it for spreading content to people.

Botany is the subject which requires maximum use of photos and videos for teaching and learning. Use of photos will make teaching and learning interesting. It also teaches the skill of drawing plat varieties. The use of mobile camera for such use is palpably easy. In the early days teachers used to draw the picture of plants and show it to students. After the invention of camera, teachers used to take photographs and made slides. All those process were cumbersome to teachers. The teachers who are dedicated in the field of botany did all these activities with commitment. Now the technological advancement in the form of mobile photography has made all these things very easy by a finger touch. It is really a golden opportunity for botany teachers to use mobile photography for their teaching and learning. Every day we witness advancement in the mobile photography by market providers' advertisements. These advancements can help botany teachers to use mobile photography in depth in studying plants and other varieties of botany. The one thing which is unexplored in the field of botany is how far the teachers are possessing knowledge and skills in mobile photography. Having seen mobile photography's benefits in the field of botany, it should be unveiled. So, it has become the natural quest of the researcher to study on "KNOWLEDGE AND SKILLS IN MOBILE PHOTOGRAPHY AMONG BOTANY TEACHERS AT HIGHER SECONDARY LEVEL".

TERMS AND DEFINITIONS

Knowledge – refers to information, understanding that you have gained through learning. Here it refers to information and understanding about mobile photography.

Skills - refers to the ability to do something. Here it refers to the ability to take mobile photos by way of answering mobile technology skills related questions.

Mobile Photography- refers to the art, application and practice of creating images by recording light through mobile phone electronically.

Botany – refers to the scientific study of plants.

Higher Secondary Level- refers to the level of senior secondary or 11th and 12 standards in 10+2+3 system of education in India.

OBJECTIVES OF THE STUDY

The study has formulated the following objectives:

1. To find out the level of knowledge and skills in mobile photography among botany teachers at higher secondary level..

2. To find out the significant difference in knowledge and skills in mobile photography among higher secondary teachers in terms of gender.

3. To find out the significant difference in knowledge and skills in mobile photography among higher secondary teachers in terms of age.

HYPOTHESES FORMULATED FOR THE STUDY

The hypotheses stated are as follows:

1. The level of knowledge and skills in mobile photography among botany teachers at higher secondary level is average.

2. There is no significant difference in knowledge and skills in mobile photography among higher secondary teachers in terms of gender.

3. There is no significant difference in knowledge and skills in mobile photography among higher secondary teachers in terms of age.

INSTRUMENTATION

The investigator used a test on knowledge and skills in mobile photography. The test on knowledge and skill in mobile photography was prepared and validated by the investigator. There are 40 multiple choice items in the test. Each item is having a value of 1 mark. Thus total marks would be 40.

ESTABLISHING VALIDITY OF THE TOOL:

The investigator has consulted experts in the field of Information technology to check the content in the test on knowledge and skills in mobile photography and its suitability to local awareness on mobile photography specifications to teachers. It ensures face and content validity of the inventory. According, to Garret, H.E (1967, P, 365) the index of reliability is sometimes taken as a measure of validity.

ESTABLISHMENT RELIABILITY OF THE TOOL: TEST-RETEST METHOD:

The test was administrated among the 22 higher secondary botany teachers in Dharmapuri as a try out and re-administrated among the same 22 higher secondary botany teachers after a gap of 15 days.

The Pearson's product moment correlation was used to find out the correlation between first and second administration of the test. The correlation between the two responses was 0.88. It is high correlation. Hence, it is assumed that the test has reliability coefficient.

SCORING:

The scores for all the 40 items were counted. Master table was prepared.

SAMPLE DESIGN

The investigator has followed stratified random sampling method for the present study. The investigator has collected a sample of 80 higher secondary botany teachers in Dharmapuri district. .

ANALYSIS

Hypothesis 1.

The level of knowledge and skills in mobile photography among botany teachers at higher secondary level is average.

TABLE 1. DESCRIPTIVE ANALYSIS FOR THE KNOWLEDGE AND SKILLS IN MOBILE PHOTOGRAPHY AMONG BOTANY TEACHERS AT HIGHER SECONDARY LEVEL

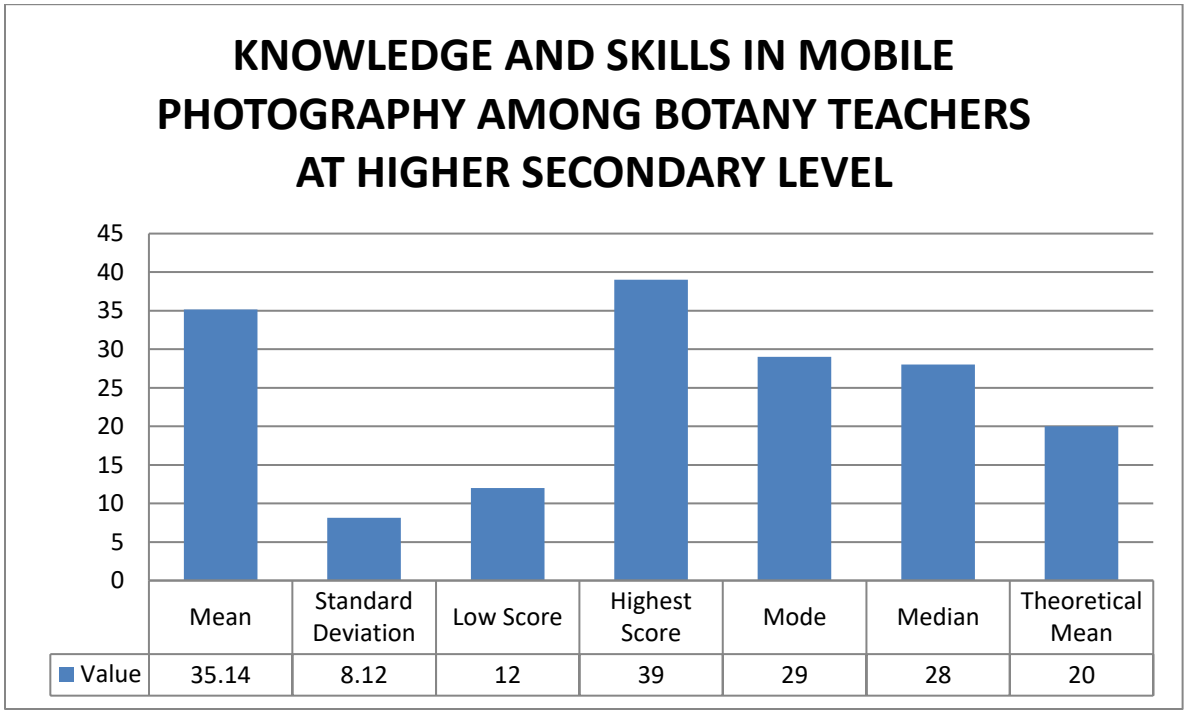
S.No	**Description**	**Value**
1.	Mean	35.14
2.	Standard Deviation	8.12
3.	Low Score	12
4.	Highest Score	39
5.	Mode	29
6.	Median	28

7.	Theoretical Mean	20

It is evident from Table 1 that the median and mode values for the knowledge and skills in mobile photography among botany teachers at higher secondary level are 28 and 29 respectively. The highest score is 39 and the lowest score is 12. The mean value obtained is 35.14 with standard deviation of 8.12. It is well above the theoretical mean of 20. It is proved from the above table that the botany teachers at higher secondary level are having knowledge and skill on mobile photography at high level. So, the hypothesis stated as "the level of knowledge and skills on mobile photography among botany teachers at higher secondary level is average" is rejected.

It may be concluded from the above that the level of knowledge and skills on mobile photography among Botany teachers at higher secondary level is high.

FIGURE 1: BAR DIAGRAM SHOWING KNOWLEDGE AND SKILLS IN MOBILE PHOTOGRAPHY AMONG BOTANY TEACHERS AT HIGHER SECONDARY LEVEL.



INFERENTIAL ANALYSIS

Inferential analysis always involves the process of sampling and the selection of a small group assumed to be related to the population from which it is drawn. The small group is known as the sample, and the large group is population. Drawing conclusions about populations based on observations of samples are the purpose of inferential analysis.

DIFFERENTIAL STUDIES

The dependent variable knowledge and skills in mobile photography among higher secondary botany teachers in terms of various subgroups of the sample is presented here. The subgroups selected for the study were gender and age.

DEGREES OF FREEDOM

The number of degree of freedom in a distribution is the number of observations (or) values that are independent of each other that cannot be deducted from other. The number of degrees of freedom for the significance of difference between the means of two independent groups would be $N_1 + N_2$-2

HYPOTHESIS: 2

There is no significant difference in knowledge and skills in mobile photography among higher secondary teachers in terms of gender.

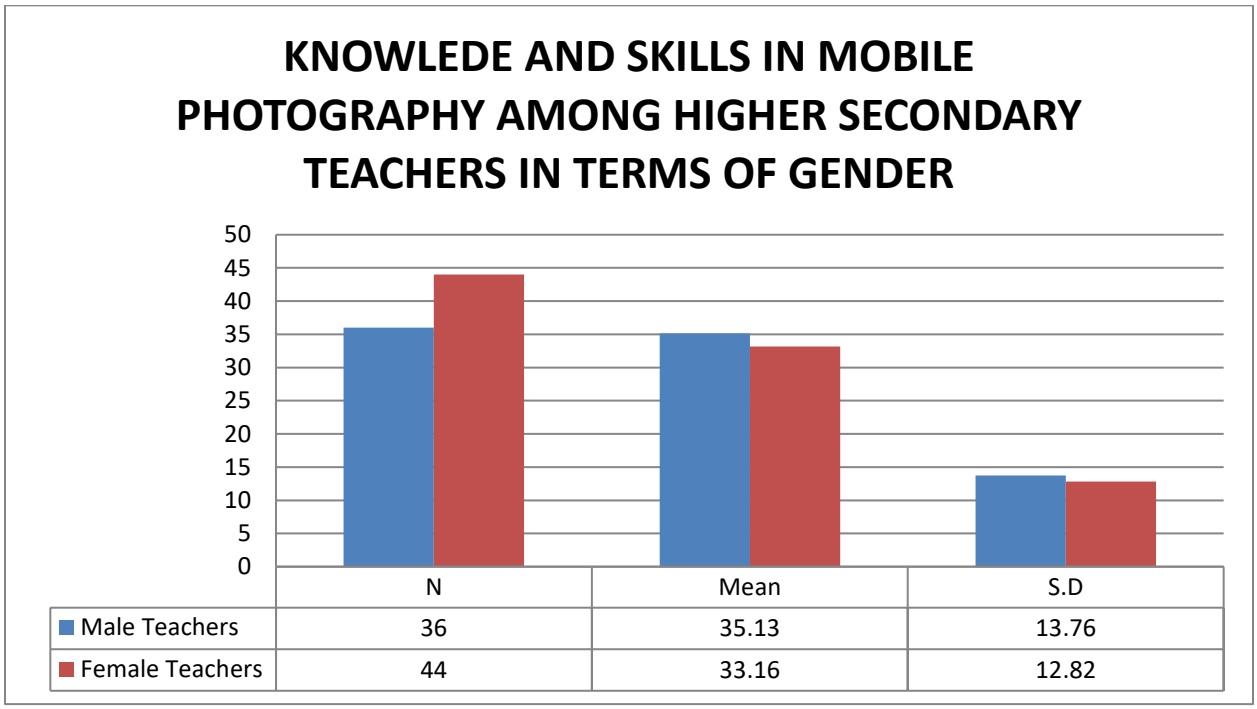
TABLE 2: MEAN, S.D. AND 't' VALUE FOR KNOWLEDGE AND SKILLS IN MOBILE PHOTOGRAPHY AMONG HIGHER SECONDARY TEACHERS IN TERMS OF GENDER

Gender	**N**	**Mean**	**S.D**	**'t'**	**Critical Value**	**Level of Significance**
Male Teachers	36	35.13	13.76	2.333	1.980 for df of 78 at 0.05 level	Significant
Female Teachers	44	33.16	12.82			

It is evident from Table 2 that the obtained 't' value is 2.333. It is higher than the critical value of 1.980 for df of 78 at 0.05 level. It is significant. Hence the hypothesis stated as "there is no significant difference in the knowledge and skills on mobile photography among higher secondary teachers in terms of gender" is rejected. The mean value of male higher secondary teachers on knowledge and skills in mobile photography is 35.16. It is higher than the mean value of female higher secondary teachers on knowledge and skills in mobile photography that is 33.13. It is inferred from the above that the male higher secondary teachers on knowledge and skills in mobile photography is better compared to knowledge and skills on mobile photography of female higher secondary teachers.

It may be concluded from the above table that there is significant difference in the knowledge and skills in mobile photography among higher secondary teachers in terms of gender. The level of knowledge and skills in mobile photography among male higher secondary teachers is better compared to the knowledge and skills in mobile photography among female higher secondary teachers.

FIGURE 2: BAR DIAGRAM SHOWING THE SIGNIFICANT DIFFERENCE IN KNOWLEDGE AND SKILLS IN MOBILE PHOTOGRAPHY AMONG HIGHER SECONDARY TEACHERS IN TERMS OF GENDER.



HYPOTHESIS: 3

There is no significant difference in knowledge and skills in mobile photography among higher secondary teachers in terms of age.

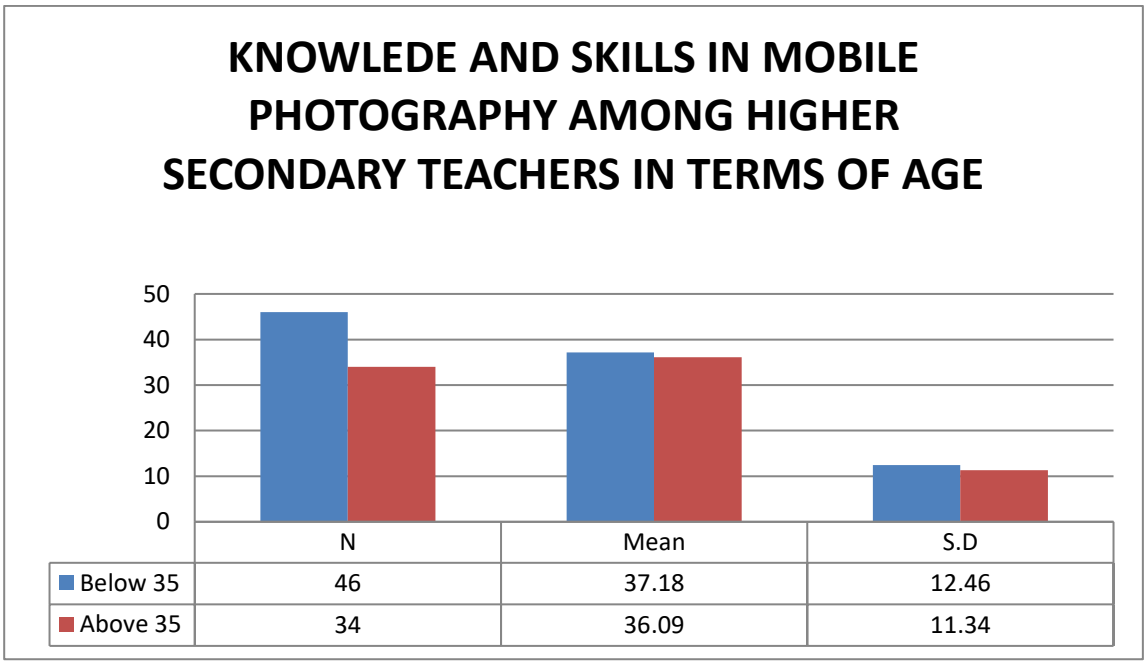
TABLE 3: MEAN, S.D. AND 't' VALUE FOR KNOWLEDGE AND SKILLS IN MOBILE PHOTOGRAPHY AMONG HIGHER SECONDARY TEACHERS IN TERMS OF AGE

Age	N	Mean	S.D	't'	Critical Value	Level of Significance
Below 35	46	37.18	12.46	2.442	1.980 for df of 78 at 0.05 level	Significant
Above 35	34	36.09	11.34			

It is evident from Table 3 that the obtained't' value is 2.442. It is higher than the critical value of 1.980 for df of 78 at 0.05 level. It is significant. Hence the hypothesis stated as "there is no significant difference in the knowledge and skills on mobile photography among higher secondary teachers in terms of age" is rejected. The mean value on knowledge and skills in mobile photography among higher secondary teachers in the category of age as below 35 is 37.18. It is higher than the mean value on knowledge and skills in mobile photography among higher secondary teachers in the category of age as above 35 which is 36.09. It is inferred from the above that the knowledge and skills on mobile photography among higher secondary teachers in the category of age as below 35 is better compared to the knowledge and skills in mobile photography among higher secondary teachers in the category of age as above 35.

It may be concluded from the above table that there is significant difference on the knowledge and skills in mobile photography among higher secondary teachers in terms of age. The level of knowledge and skills in mobile photography is better among higher secondary teachers in the category of age as below35 compared to the knowledge and skills in mobile photography among higher secondary teachers in the category of age as above 35.

FIGURE 3: BAR DIAGRAM SHOWING THE SIGNIFICANT DIFFERENCE IN KNOWLEDGE AND SKILLS IN MOBILE PHOTOGRAPHY AMONG HIGHER SECONDARY TEACHERS IN TERMS OF AGE



	N	Mean	S.D
Below 35	46	37.18	12.46
Above 35	34	36.09	11.34

FINDINGS

1. The level of knowledge and skills on mobile photography among Botany teachers at higher secondary level is high.

2. There is significant difference in the knowledge and skills in mobile photography among higher secondary teachers in terms of gender. The level of knowledge and skills in mobile photography among male higher secondary teachers is better compared to the knowledge and skills in mobile photography among female higher secondary teachers.

3. There is significant difference on the knowledge and skills in mobile photography among higher secondary teachers in terms of age. The level of knowledge and skills in mobile photography is better among higher secondary teachers in the category of age as below 35 compared to the knowledge and skills in mobile photography among higher secondary teachers in the category of age as above 35.

CONCLUSION

It is concluded from the above findings that the higher secondary botany teachers are having knowledge and skills in mobile photography at high level. The variables gender and age influence the knowledge and skills in mobile photography of higher secondary school teachers. The male higher secondary teachers are having better knowledge and skills in mobile photography than female higher secondary teachers. The higher secondary teachers in the category of age as below35 do have more knowledge and skills in mobile photography than higher secondary teachers in the category of age above 35.

EDUCATIONAL IMPLICATIONS

The study has brought out an important finding that the knowledge and skills in mobile photography of Botany higher secondary teachers is high. It is in tune with the general notion that the mobile photography is gaining ground among all the teachers. More and more teachers are using it. The pandemic situation has also led the teachers to explore more on mobile gadgets.

Differential studies have given us an implication that knowledge and skills in mobile photography is better among male teachers. It is quite natural male teachers have the opportunities to interact with all other people more freely than female teachers. It is easy for the male teachers to get knowledge about mobile phones than female teachers. The teachers having age category as below 35 are more knowledgeable and skillful in mobile photography. It reflects the general trend that the young teachers have more chance for updating their technological knowledge. The present findings are just a reflection of what goes on among teachers in using mobile photography for their teaching and learning.

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