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# RESEARCH PAPER

# Role of Information and Communication Technologies (ICTs) for Affective Learning of Students at Higher Secondary Schools: An **Analysis**

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#### **ABSTRACT**

The present research aims to analyze the role of information and communication technologies for affective learning of students at higher secondary schools. The study was descriptive and survey-based. Both the qualitative and quantitative (QUAN-qual.) methods were applied. The explanatory approach was used. Population of the study comprised principles, subject specialists, and students of higher secondary classes of district Khairpur, Sindh. The basic random sampling method was used. The sample of study was consisted 400 students, 8 Principals, 24 subject specialists. The questionnaires were developed as research instruments for gathering information from the participants. The advice of experts was used to guarantee validity, while Cronbach Alpha was used in SPSS-23 to determine reliability. Overall the findings of the study revealed that majority of the SSTs students were agreed that the problems and issues related to ICTs. The mean score was 3.419.the standard deviation was 1.569 and According to the study's findings, the majority of SSTs and students believed that students could learn real-world situations, enhance their knowledge, create learning content, communicate, find assigned topics online, obtain quick information, comprehend better when teachers integrated ICTs, learn effectively through ICT use, and learn from online dictionaries and encyclopedias. The emerging technologies may be included teaching learning process to transmit the updated and relevant knowledge of ICTs.

Information and Communication Technologies, Real World Situation, Relevant **Keywords: Knowledge, Teaching Learning Process** 

## Introduction

The affective learning of students at higher secondary schools as it is the interaction which includes not with-standing broad training this research of technologies and related abilities and the accomplishment of viable abilities approach understanding and information connected with occupation in different areas of life (Lone., 2011; Hina et al., 2023; Mohiman., 2024). Just gives professional abilities yet additionally gives a lot of information abilities and perspectives which is useful in down to earth life the primary advantage of intermittent preparation is that in Information Communication Technologies ICTs further develops capacity which connects with useful which can be used for work specialized and professional schooling old style focus on understudies learning and plan tasks which help in work this preparing programs help understudies to take care of business with no work preparing the fundamental design is to take care of business or occupation professionally and without any problem (Zafar et al., 2017; Zafar & Ulllah 2020; Ahmad et al., 2023; Jalbani et al., 2023; Sadaf et al., 2024). The affective learning at higher secondary school is the preparation program which can get ready train is to work face market all the more immediately contrasted and other standard scholarly schooling programs the affective learning of higher secondary school level is an ideal opportunity to time being information by master not entirely settled for the development of preparing workforce (Ullah et al., 2020; Yousaf et al., 2021; Zafar & Akhtar 2023; Rasheed et al 2024).

Pakistan is agricultural nation and it is a long ways behind from emerging nations school system standard particularly in specialized and professional training Pakistan is inadequate with regards to offices even a large portion of non-industrial nations have better instruction that Pakistan (Bhutto et al., 2023; Mumtaz et al., 2024; Rasheed et al., 2024). The Pakistan school system depends on to stream is to the general school system says that grades 1-5 are the most important, that grades 6-8 are the middle, that grades 9-10 are for registration, that grades 11-12 are transitional, and that after grade 12 you graduate. After registration or 10 grades, the next stream is specialized and professional instruction (Ramzan et al., 2023; Rasheed et al., 2024). There are different time frames for different courses that last a long time or a half year. There are also different reasons for courses that last between three and a half years and between one and two years. Public/private specialized and professional instruction programs started by National and common state-run administrations where committed government division and testing sheets are working to control in higher secondary schools (Shakir et al., 2011; Rao et al., 2023; Mumtaz et al., 2024). Nearby and local non-government and Government teacher training center upheld by government plans and worldwide gift u private corporation enterprises are additionally offering free types of assistance sponsored institution under their corporate social obligation. There are likewise Government and private Institution of young men and young ladies where understudies are getting education (Shakir et al., 2012; Zafar et al., 2023; Abbas et al., 2024; Naz et al., 2024).

Pakistan specialized and professional Institutions needs work on in each field for rivaling difficulties related with proficient instruction the specialized and professional institution needs change approaches need headway (Mughal et al., 2023; Shafqat et al., 2024). States that ICT work on the instruction and learning and understudies in institute the ICT utilization is low because of a mindfulness and Technology devices and offices educators who are information and denied showing proficiency expresses that professional it and abilities improvement is this method for upgrading work item efficiency in Pakistan around 33% work populaces is affective learning long haul making arrangements for instructors go to stay away from significant issues of Hunger and sacristy need should be planned for preparing of affective learning of students at higher secondary schools (Akram et al., 2022; Arshad et al., 2024; Bhayo et al., 2024).

There are many needs for the role of information and communication technologies (ICTs) in students' affective learning at higher secondary schools. The 1st need is to offer a safe and nurturing atmosphere for higher secondary students to learn and grow (Hassan et al., 2024). The 2nd need is to ensure an environment that is beneficial to learn that inspires learners to participate in their studies (Maitlo et al., 2024; Mazhar et al., 2024). Moreover, principal of higher secondary school can assist learners to grow study practices and to ensure affection for learning. The researcher planned to conduct his M.Phil research due to emergence and importance of the higher secondary management.

## **Material and Methods**

"Methodical study of process is known as the research method" (Ahmad et al., 2021, p.194). while research design contains on the entire process used in research (Maitlo et al., 2023; Ahmad, Sanober & Cheema., 2024). The study was both descriptive and survey-based. Both the qualitative and quantitative (QUAN-qual.) methods were applied. The manner of explanation was used. "The population is defined as a set of individuals, data, or items from which a statistical sample is taken" (Younus et al., 2023). The following made up the study's population: Principles of Higher Secondary Schools of District Khairpur, Sindh, and Subject Specialists of Higher Secondary Schools of District Khairpur, Sindh and Students of Higher Secondary Classes of District Khairpur, Sindh. The basic random

sampling method was used. The research sample included of four hundred students (400) including; eight (08) Principals, Twenty four (24) Subject Specialists of Higher Secondary Schools.

The total sample of the review comprised; Eight (08) Principles of Higher Secondary in Khairpur, Twenty four (24) Subject Specialists Higher Secondary in Khairpur, Four hundred (400) Students of Higher Secondary Schools in Khairpur. Instruments performs important role in assembling accurate data from the research participants (Ahmad, Cheema & Farhat., 2023; Cheema et al., 2024). The research instruments listed here were developed for the proposed investigation; the questionnaire based on 5-PointsLikert scale and Interview protocol for Principals of Higher Secondary Schools. The pilot study was conducted as follows: The questionnaire was distributed among the faculty members, senior scholars, and colleagues for the expert opinion. They checked and mention the deficiencies in the tool. They gave suggestion to make sure coherence of title along with objectives. The researcher modified the questionnaire in light of the expert opinion. The questionnaire became valid and became helpful in achieving the predetermined objectives. The reliability of questionnaire was calculated through the Cronbach's Alpha. The individual researcher visited and administered the questionnaire in order to gather data after development of research tool. The researcher feed the data into data sheet after collecting 20% data from the respondents. . The following pertinent statistical formulae were used: correlation, mean t-test, percentage, and percentage. The results and conclusions of the review are based on the findings.

#### **Results and Discussion**

The researcher was expected to visit five unique tests instructive kick-off and again for the garnish off of reviews frame the instructive. All the individual enlightening units as said inside everybody for garnish off of audits and full participation

Table 1 Knowledge of ICTs

|                    |       | Responses      |     |     |      |       |      |         |       |
|--------------------|-------|----------------|-----|-----|------|-------|------|---------|-------|
| Items              | Stat. | SDA DA UD A SA |     |     |      | Total | - SD | Mean    |       |
| Real world         | F     | 41             | 35  | 22  | 189  | 145   | 432  | 1011    | 0.000 |
| situation          | %     | 9%             | 8%  | 5%  | 44%  | 34%   | 100% | - 1.241 | 3.838 |
| Improvement of     | F     | 17             | 42  | 59  | 187  | 127   | 432  | 1.072   | 2044  |
| knowledge          | %     | 4%             | 10% | 14% | 43%  | 29%   | 100% | - 1.073 | 3.844 |
| I                  | F     | 28             | 59  | 33  | 163  | 149   | 432  | 4.000   | 2.000 |
| Learning content   | %     | 7%             | 14% | 8%  | 38%  | 35%   | 100% | - 1.230 | 3.800 |
| A :                | F     | 15             | 56  | 27  | 73   | 261   | 432  | - 1.212 | 4.178 |
| Assigned topics    | %     | 4%             | 13% | 6%  | 17%  | 60%   | 100% |         |       |
| 0 1 11             | F     | 27             | 58  | 16  | 160  | 171   | 432  | - 1.235 | 3.902 |
| Communication      | %     | 6%             | 13% | 4%  | 37%  | 40%   | 100% |         |       |
| Outals Information | F     | 30             | 83  | 27  | 103  | 189   | 432  | - 1.360 | 3.782 |
| Quick Information  | %     | 7%             | 19% | 6%  | 24%  | 44%   | 100% |         |       |
| Better understand  | F     | 18             | 44  | 66  | 198  | 106   | 432  | 1.061   | 3.763 |
| Better understand  | %     | 4%             | 10% | 15% | 46%  | 25%   | 100% | - 1.061 |       |
| Loann offoativolv  | F     | 1              | 15  | 45  | 225  | 146   | 432  | 760     | 4.157 |
| Learn effectively  | %     | 2%             | 4%  | 10% | 52%  | 34%   | 100% |         |       |
| Dictionary and     | F     | 41             | 26  | 42  | 239  | 84    | 432  | 1 1 2 7 | 3.692 |
| encyclopedia       | %     | 10%            | 6%  | 10% | 55%  | 19%   | 100% | - 1.137 | 3.692 |
| Total              | F     | 218            | 418 | 337 | 1537 | 1378  | 3024 | 1 204   | 3.884 |
| Total              | %     | 6%             | 11% | 9%  | 38%  | 36%   | 100% | - 1.384 | 3.884 |

Table 1 presents the Indicator.1: Knowledge of ICTs: Students learn real world situation through ICTs:

• Item.1 was related to learn about real world situation through ICTs. The data analysis showed that 78% (44%+34%) SSTs students were agreed that students learn real

world situation through ICTs, while 17% (9%+8%) were disagreed whereas 5% were undecided. Collectively, majority of SSTs and Students strongly agreed that Students learn real world situation through ICTs. Mean score 3.858 and standard deviation 1.241supported.

- Item.2 was related to improve their knowledge through ICTs. The data analysis showed that 72% (43%+29%) SSTs were agreed that students improve their knowledge through ICTs, while 14% (10%+4%) were disagreed whereas 14%were undecided. Collectively, majority of SSTs and Students strongly agreed that improve their knowledge through ICTs. Mean score 3.844 and SDA 1.073 supported.
- Item.3 was related to develop their learning content through ICTs. The data analysis showed that 74% (38%+36%) SSTs were agreed that Students develop their learning content through ICTs, while 17% (11%+6%) were disagreed whereas 9% were undecided. Collectively, majority of SSTs and Students strongly decided to use ICTs to construct their learning materials. Average score 3.800 and standard deviation 1.230 supported.
- Item.4 was related to Go online to find the assigned subjects.. The data analysis showed that 77% (60%+17%) SSTs students were agreed that use the internet to look for assigned topics, while 17% (13%+4%) were disagreed whereas 6% were undecided. Collectively, majority of SSTs and Students firmly agreed that searching for given subjects online is a good idea. Insensitive score 3.800 and standard deviation 1.230 supported.
- Item.5 was related to communicate through ICTs. The data analysis showed that 77% (40%+37%) SSTs students were agreed that communicate through ICTs, while 19% (13%+6%) were disagreed whereas 4% were undecided. Collectively, majority of SSTs and students strongly agreed that communicate through ,The mean score was 3.902, with a standard deviation of 1.235, lending support to the findings in this item.6 was related to get quick information through ICTs. The data analysis showed that 68% (44%+24%) SSTs students were agreed that get quick information through ICTs, while 17% (19%+7%) were disagreed whereas 6% were undecided. Collectively, majority of SSTs and Students strongly agreed that get quick information through ICTs.Mean score 3.782 and SDA 1.360 supported.
- Item.7 was related understand better when teacher integrate ICTs. The data analysis showed that 71% (46%+25%) SSTs students were agreed that better when teacher integrate ICTs, while 17% (10%+4%) were disagreed whereas 15% were undecided. Collectively, majority of SSTs and Students strongly agreed that understand better when teacher integrate ICTs Mean score 3.763 and SDA 1.061 supported.
- Item.8 was related learn effectively through the use of ICTs. The data analysis showed that 86% (52%+34%) SSTs students were agreed that learn effectively through the use of ICTs, while 17% (4%+2%) were disagreed whereas 10% were undecided. Collectively, majority of SSTs and Students strongly agreed that learn effectively through the use of ICTs. Mean score 4.157 and standard deviation .760 supported.
- Item.9 was related to learn through online dictionary and encyclopaedia. The data analysis showed that 74% (55%+19%) SSTs students were agreed thatlearn through online dictionary and encyclopaedia, while 16% (10%+6%) were disagreed whereas 10% were undecided. Collectively, majority of SSTs and Students strongly agreed thatlearn through online dictionary and encyclopaedia. Mean score 3.692 and SDA 1.137.supported.

• Collectively, was related to Indicator.1: Knowledge of ICTs, The data analysis showed that 74% (38%+36%) SSTs students were agreed that Indicator.1: Knowledge of ICTs, while 17% (11%+6%) were disagreed whereas 9% were undecided. Collectively, majority of SSTs and students strongly agreed that students Indicator.1: Knowledge of ICTs. Mean score 3.884 and SDA 1.384 supported.

Table 2
Gender-based Analysis: Knowledge of ICTs

| Itama   | Candon | N   |       |       | Responses |         |         |
|---------|--------|-----|-------|-------|-----------|---------|---------|
| Items   | Gender | N   | Mean  | SD    | Df        | T-value | Sig.    |
| RWS -   | Male   | 219 | 3.456 | 1.238 | 430       | -1.381  | 020     |
|         | Female | 213 | 3.610 | 1.065 | 424       | -1.384  | .028    |
| IMIZ    | Male   | 219 | 3.926 | 1.220 | 430       | 1.512   | 250     |
| IMK     | Female | 213 | 3.746 | 1.259 | 429       | 1.512   | .250    |
| DI C    | Male   | 219 | 3.821 | 1.062 | 430       | 451     | (20     |
| DLC     | Female | 213 | 3.868 | 1.086 | 429       | 451     | .630    |
| T A TT  | Male   | 219 | 3.826 | 1.236 | 430       | .437    | . 025   |
| IAT -   | Female | 213 | 3.774 | 1.227 | 430       | .437    | .835    |
| I OTT   | Male   | 219 | 4.219 | 1.175 | 430       | .711    | 275     |
| ICT     | Female | 213 | 4.136 | 1.249 | 427       | .711    | .375    |
| COL     | Male   | 219 | 3.922 | 1.237 | 430       | .334    | 202     |
| GQI     | Female | 213 | 3.882 | 1.236 | 430       | .334    | .392    |
| חיינו   | Male   | 219 | 3.762 | 1.364 | 430       | 307     | .802    |
| BTI     | Female | 213 | 3.802 | 1.359 | 430       | 307     | -       |
| I PT    | Male   | 219 | 3.780 | 1.099 | 430       | .336    | .411    |
| LET -   | Female | 213 | 3.746 | 1.024 | 430       | .336    | -       |
| LТО —   | Male   | 219 | 4.155 | .744  | 430       | 060     | 262     |
|         | Female | 213 | 4.159 | .778  | 430       | 060     | .363    |
| Total - | Male   | 219 | 3.873 | 1.070 | 430       | 0.125   | 0.454   |
|         | Female | 213 | 3.858 | 1.028 | 432       | 0.125   | - 0.454 |

Table 2 shows that

- Item.1 data analysis reveals that M-value of male participants is 3.456 and female participants are 3.610 reflecting that female participants' of higher secondary students learn real world situation through ICTs than male students. Supported by SD 1.238, T-value -1.381, df 430 and Sig .028.
- Item.2 data analysis reveals that M-value of male and female participants was respectively 3.926 and females are 3.746 that showing that male higher secondary students bring improvement in knowledge through ICTs than female students. Supported by SD, 1.259, T-value1.512, df 430 and Sig .250.
- Item.3 data analysis reveals that M-value of male and female participants was respectively 3.821 and 3.868 that revealed that female participants' higher secondary students develop their learning content through ICTs than male students. Supported by SD 1.086, t-value-.431, df 430 and Sig.630.
- Item.4 data analysis reveals that M-value of male and female participants was respectively 3.826 and 3.774 that revealed that male higher secondary students use the internet to look for assigned topics than females. Supported by SD 1.236, t-value.437,df 430 and Sig.837.
- Item.5 data analysis reveals that M-value of male and female participants was respectively 4.219 and 4.136 that revealed that male's higher secondary students

communication through ICTs than females. Supported by SD1.275, t-value.711, df 430 and Sig.375.

- Item.6 data analysis reveals that M-value of male and female participants was respectively 3.922 and 3.882 revealed that male higher secondary students get quick information through ICTs than females. Supported by SD.237, t-value.334, df 430 and Sig.392.
- Item.7 data analysis reveals that M-value of male and female participants was respectively 3.802 and 3.762 shows that female higher secondary students understand better when teacher integrate ICTs than males. Supported by 1.364,t-value -.307,df 430 and Sig.802.
- Item.8 data analysis reveals that M-value of male and female participants was respectively 3.780 and 3.746 that reveals that male higher secondary students learn effectively through the use of ICTs than females. Supported by 1.099,t-value.336,df 430 and Sig.411.
- Item.9 data analysis reveals that M-value of male and female participants was respectively 4.159 and 4.155 that reveals that male higher secondary students learn through online dictionary and encyclopedia than females. Supported by.744, t-value .060, df 430, and Sig.363.
- Collectively, data analysis reflects that mean value of male is 3.873 and female is 3.858, that reflects that males performance was better than females. Supported by, SD 1.070 t-values, 0.125, df 430 and Sig 0.454.

Table 3
Analysis by Locality: Indicator 1 - ICT Knowledge

|          | 71114    | iyoio by | Documey: Inc | iicatoi i | 101 IMOWICUE      | 50      |          |
|----------|----------|----------|--------------|-----------|-------------------|---------|----------|
|          |          | N        |              |           | Locality Analysis |         |          |
| Items    | Locality | IN       | Mean         | SD        | DF                | t-value | sig.     |
|          | Urban    | 217      | 3.815        | 1.064     | 430               | 606     | .926     |
| Item.1   | Rural    | 214      | 3.869        | 1.084     | 430               | 606     | _        |
| It 2     | Urban    | 217      | 3.765        | 1.215     | 430               | .135    | .995     |
| Item.2   | Rural    | 214      | 3.836        | 1.250     | 430               | .135    | _        |
| It 2     | Urban    | 217      | 4.198        | 1.218     | 429               | 517     | .932     |
| Item.3   | Rural    | 214      | 4.154        | 1.210     | 429               | 517     | _        |
| Itam 4   | Urban    | 217      | 3.875        | 1.239     | 430               | 602     | .738     |
| Item.4   | Rural    | 214      | 3.925        | 1.234     | 429               | 602     | =        |
| Itam C   | Urban    | 217      | 3.811        | 1.345     | 430               | .376    | .423     |
| Item.5   | Rural    | 214      | 3.752        | 1.380     | 429               | .376    | _        |
| Itam 6   | Urban    | 217      | 3.783        | 1.015     | 430               | 417     | .136     |
| Item.6   | Rural    | 214      | 3.738        | 1.107     | 430               | 417     | _        |
| Ibana 7  | Urban    | 217      | 4.179        | .745      | 430               | .447    | .892     |
| Item.7   | Rural    | 214      | 4.135        | .778      | 429               | .447    |          |
| Itam 0   | Urban    | 217      | 3.843        | 1.222     | 430               | .441    | .517     |
| Item.8 - | Rural    | 214      | 3.827        | 1.264     | 430               | .440    | <u>-</u> |
| Item.9 - | Urban    | 217      | 3.668        | 1.162     | 429               | .602    | .687     |
|          | Rural    | 214      | 3.710        | 1.113     | 430               | .602    |          |
| Total –  | Urban    | 217      | 3.881        | 1.200     | 430               | -042    | - 0.698  |
|          | Rural    | 214      | 3.882        | 1.157     | 430               | -0.143  | 0.070    |
|          |          |          |              |           |                   |         |          |

Table 3: Analysis by Locality: Indicator 1 - ICT Knowledge:

- Item.1 data analysis reveals that M-value of rural is 3.869 and urban is 3.715 that reveals that rural students learn real world situation through ICTs than urban at higher secondary students. Supported by SD 1.084,t-value -.606, df 429.and Sig .926.
- Item.2 data analysis reveals that M-value of rural is 3.836 and urban is 3.765 that reveals that rural students improve their knowledge through ICTs than urban. The SD 1.250, t-value .135, df 430 and Sig .995 also supported.
- Item.3 data analysis reflects that mean value of urban is 4.198 and mean value of rural is 4.154 that reflects that urban higher secondary students develop their learning content through ICTs than rural. Supported by SD 1.218, t-value -.602, df 429 and Sig .932.
- Item.4 data analysis reveals that M-value of rural is 3.925 and urban is 3.875 that reflects that rural higher secondary students use the internet to look for assigned topics than urban. Supported by SD 1.239, t-value -.602, df 430.and Sig.738.
- Item.5 data analysis reveals that M-value of urban is 3.811and rural is 3.752 that reflect that urban higher secondary student's communication through ICTs than rural. Supported by SD 1.380, t-value .376, df 430 and Sig .423.
- Item.6 data analysis reveals that M-value of urban is 3.783 and rural is 3.738 that reflects that urban higher secondary students get quick information through ICTs than rural. Supported by SD 1.107, t-value -.417,df 430 and Sig .136.
- Item.7 data analysis reveals that M-value of urban is 4.179 and rural is 4.135 that reflects that urban higher secondary students understand better when teacher integrate ICTs than rural. Supported by SD .778,t-value .447, df 430 and Sig .892.
- Item.8 data analysis reveals that M-value of urban is 3.843 and rural is 3.827 that reflects that urban higher secondary students learn effectively through the use of ICTs than rural. Supported by SD 1.264, t-value .441, df 430 and Sig .517.
- Item.9 data analysis reveals that M-value of rural is 3.710 and urban is 3.668 that reflects that rural higher secondary students learn through online dictionary and encyclopedia than urban. Supported by SD 1.162, t-value .602, df 430 and Sig .687.
- Collectively, data analysis of all items reflects that mean value of rural is 3.883 and mean value of urban is 3.881 that reflects that rural higher secondary students than urban. The SD 1.200, t-value -0.142, df 430 and Sig 0.698 also supported.

Table.4
Sector-based Analysis: Indicator-1: Knowledge of ICTs

| Items    | Sector  | _   | Locality Analysis |       |     |         |      |  |
|----------|---------|-----|-------------------|-------|-----|---------|------|--|
| items    | Sector  | N   | Mean              | SD    | Df  | t-value | Sig. |  |
| Item.1 – | Public  | 232 | 3.672             | .982  | 432 | 176     | .066 |  |
|          | Private | 232 | 3.689             | 1.123 | 429 | 176     | -    |  |
| Item.2   | Public  | 232 | 3.944             | 1.195 | 432 | 1.693   | .061 |  |
| itelli.2 | Private | 232 | 3.750             | 1.127 | 428 | 1.693   |      |  |
| Item.3   | Public  | 232 | 3.780             | 1.060 | 431 | 849     | .669 |  |
| iteiii.5 | Private | 232 | 3.866             | 1.125 | 432 | 849     |      |  |
| Item.4 - | Public  | 232 | 3.862             | 1.194 | 432 | 1.242   | .050 |  |
|          | Private | 232 | 3.719             | 1.270 | 431 | 1.242   | -    |  |
| Item.5 – | Public  | 232 | 4.211             | 1.207 | 429 | .077    | .795 |  |
|          | Private | 232 | 4.202             | 1.208 | 432 | .077    | =    |  |
| Item.6   | Public  | 232 | 3.892             | 1.184 | 431 | .596    | .025 |  |
|          |         |     |                   |       |     |         |      |  |

|          | Private | 232 | 3.823 | 1.305 | 432 | .596   |         |
|----------|---------|-----|-------|-------|-----|--------|---------|
| I 7      | Public  | 232 | 3.750 | 1.357 | 431 | .232   | .136    |
| Item.7   | Private | 232 | 3.719 | 1.439 | 430 | .232   | _       |
| Item.8 - | Public  | 232 | 3.715 | 1.055 | 432 | -1.381 | .055    |
|          | Private | 232 | 3.844 | .958  | 429 | -1.381 | _       |
| Item.9 - | Public  | 232 | 4.163 | .737  | 432 | 699    | .961    |
|          | Private | 232 | 4.211 | .722  | 428 | 699    | _       |
| Total –  | Public  | 232 | 3.887 | 1.107 | 431 | 0.081  | - 0.929 |
|          | Private | 232 | 3.869 | 1.141 | 430 | 0.081  | 0.929   |

Table.4: Sector-based Analysis: Indicator-1: Knowledge of ICTs:

- Item.1 data analysis reveals that M-value of private is 3.689 and mean value of public is 3.672 that reflect that private students learn real world situation through ICTs than public at higher secondary students. Supported by 982,t-value --.176, df 432.and Sig .066.
- Item.2 data analysis reveals that M-value of public is 3.944 and mean value of private is 3.750 that reflect that public students improve their knowledge through ICTs than urban. Supported by 1.195, t-valu 1.693, df 429 and Sig .061.
- Item.3 data analysis reveals that M-value of private is 3.866 and mean value of public is 3.780 that reflect that private higher secondary students develop their learning content through ICTs than public. Supported by SD 1.125, t-value -.602,-.849 df 432 and Sig .669.
- Item.4 data analysis reveals that M-value of public is 3.862 and mean value of private is 3.719 that reflect that public higher secondary students use the internet to look for assigned topics than private. The standard deviation 1.270,t-value 1.242, df 432,and Sig.0.50 also supported.
- Item.5 data analysis reveals that mean value of private is 4.211and mean value of public is 4.202 that reflect that private higher secondary student's communication through ICTs than public. Supported by 1.208, t-value .077, df 432 and Sig .795.
- Item.6 data analysis reveals that M-value of public is 3.892 and mean value of private is 3.823 that reflect that public higher secondary students get quick information through ICTs than private. Supported by SD 1.305, t-value .596 df 432 and Sig 0.25.
- Item.7 data analysis reveals that M-value of public is 3.750 and private is 3.719 that reflect that public higher secondary students understand better when teacher integrate ICTs than private. Supported by 1.439, t-value .232, df 432 and Sig .136.
- Item.8 data analysis reveals that M-value of private is 3.844 and public is 3.715 that reflect that private higher secondary students learn effectively through the use of ICTs than public. The standard deviation 1.055, t-value -1.381, df 432 and Sig .55 also supported.
- Item.9 data analysis reflects that mean value of private is 4.211 and mean value of public is 4.163 that reflects that private higher secondary students learn through online dictionary and encyclopedia than public. The standard deviation .722, t-value .699 df 432 and Sig .961 also supported.
- Collectively, data analysis of all items reflects tht mean value of public is 3.887 and mean value of public is 3.689 that reflects that public higher secondary students than private. Supported by SD 1.141,t-value 0.081, df 431 and Sig 0.929.

# **Findings**

- 78% (44%+34%) SSTs students were agreed that students learn real world situation through ICTs, while 17% (9%+8%) were disagreed whereas 5% were undecided. Collectively, majority of SSTs and students strongly agreed that students learn real world situation through ICTs. Mean score 3.858 and standard deviation 1.241 supported.
- 72% (43%+29%) SSTs were agreed that students improve their knowledge through ICTs, while 14% (10%+4%) were disagreed whereas 14% were undecided. Collectively, majority of SSTs and students strongly agreed that improve their knowledge through ICTs. Mean 3.844 and SD 1.073 supported.
- 74% (38%+36%) SSTs were agreed that students develop their learning content through ICTs.while 17% (11%+6%) were disagreed whereas 9% were undecided. collectively, majority of SSTs and students strongly agreed that develop their learning content through ICTs. Mean score 3.800 and standard deviation 1.230 supported.
- 77% (60%+17%) SSTs students were agreed that use the internet to look for assigned topics, while 17% (13%+4%) were disagreed whereas 6% were undecided. collectively, majority of SSTs and students strongly agreed that use the internet to look for assigned topics. Mean score 3.800 and standard deviation 1.230 supported.
- 77% (40%+37%) SSTs students were agreed that communicate through ICTs, while 19% (13%+6%) were disagreed whereas 4% were undecided. collectively, majority of SSTs and students strongly agreed that communicate through ICTs. Mean score 3.902 and standard deviation 1.235 supported.
- 68% (44%+24%) SSTs students were agreed that get quick information through ICTs.While 17% (19%+7%) were disagreed whereas 6% were undecided. collectively, majority of SSTs and students strongly agreed that get quick information through ICTs. Mean score 3.782 and standard deviation 1.360 supported.
- 71% (46%+25%) SSTs students were agreed that understand better when teacher integrate ICTs, while 17% (10%+4%) were disagreed whereas 15% were undecided. collectively, majority of SSTs and students strongly agreed that understand better when teacher integrate ICTs. Mean score 3.763 and standard deviation 1.061 supported.
- 86% (52%+34%) SSTs students were agreed that learn effectively through the use of ICTs, while 17% (4%+2%) were disagreed whereas 10% were undecided. collectively, majority of SSTs and students strongly agreed that learn effectively through the use of ICTs. Mean score 4.157 and standard deviation .760 supported.
- 74% (55%+19%) SSTs students were agreed that learn through online dictionary and encyclopaedia, while 16% (10%+6%) were disagreed whereas 10% were undecided. collectively, majority of SSTs and students strongly agreed that learn through online dictionary and encyclopaedia. Mean score 3.692 and standard deviation 1.137 supported.
- 74% (38%+36%) SSTs students were agreed that indicator.1: knowledge of ICTs, while 17% (11%+6%) were disagreed whereas 9% were undecided. collectively;

majority of SSTs and students strongly agreed that students indicator.1: knowledge of ICTs. Mean score 3.884 and standard deviation 1.384 support.

#### **Discussion**

The study's first indication was centered on ICT expertise. According to the findings, most SSTs and students thought that ICTs allowed them to create learning materials, improve their knowledge, and interact with real-world situations. They regularly utilize the internet for rapid information access, ICT tool communication, and assigned topic study. Students also mentioned using online dictionaries and encyclopedias to aid in their studies, learning more effectively through ICT integration, and having a better comprehension when teachers integrate ICTs into their classes.

#### **Conclusions**

The study's first indication concerned ICT knowledge. According to the study's findings, most SSTs and students thought that ICTs helped them interact with real-world situations, expand their knowledge, create educational resources, and do online research on given subjects. Additionally, they emphasized how ICTs enable the use of online dictionaries and encyclopedias, improve comprehension when incorporated into instruction, simplify communication, offer rapid access to information, and encourage successful learning.

The second indicator focused on ICT skills and abilities. According to the survey, the majority of SSTs and students firmly agreed that ICTs facilitate the development of communication skills, the application of academic knowledge to professional settings, and the retrieval of information from a variety of sources. ICTs also help students grip technical and technological abilities, communicate ideas logically, get brief information, and successfully synthesize different points of view. ICTs also make it possible to collaborate, solve learning difficulties, find answers, examine issues from several angles, create networks, produce creative ideas, and improve logical communication within particular subject areas. Students also felt that ICTs were essential for speeding up learning and relating to real-world scenarios.

# Recommendations

- The role of information communication technology is significant in teaching learning process especially at higher secondary schools. The emerging technologies may be included teaching learning process to transmit the updated and relevant knowledge of ICTs.
- The inclusion of information and communication technology is significant in teaching learning process especially at higher secondary schools. The emerging technologies may be included teaching learning process to inculcate the relevant skills of ICTs.
- The enclosure of information and communication technology is significant in teaching learning process especially at higher secondary schools. The emerging technologies may be included teaching learning process to inculcate the relevant disposition of ICTs.
- The insertion of information and communication technology is significant in teaching learning process especially at higher secondary schools. The emerging technologies may be included teaching learning process to develop the relevant application of ICTs.

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