# Utilisation Of Learning Apps Among +2 Science Students

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*ABSTRACT:*

   At present we have shifted to digital transformation in the field of education, making our teaching-learning easier comparatively to the previous. There was Guru took an important role in everyone's learning earlier, now it has been embraced by Google through some learning apps. In the last decade, there has been ongoing discussion among +2 science students worldwide about the use of learning applications in the learning process. These applications, also known as educational apps, are software that allows learning on portable devices such as mobile phones, laptops, etc. They leverage various media, such as images, videos, and sounds, to make learning more engaging for students compared to traditional methods like books and chalkboards. Educational apps have greatly improved accessibility to learning, with children's smartphone usage increasing rapidly. According to Common Sense Media, up to 20% of 8-year-olds and 80% of teens between 14 and 18 own smartphones. The use of technology in K-12 classrooms has enhanced learning methods for new generations, and the COVID-19 pandemic has further necessitated the adoption of new technologies. Now, students belonging to Generation Z are highly equipped to use present technology on any device.

This paper focuses on the study of the utilization of learning apps among +2 science students in the urban area of the Davanagere district. The sample consisted of 30 +2 science students, and data was analyzed using a survey method. It was found that the utilization of learning apps is significantly different among +2 science students in all streams.

**KEYWORDS**: Learning apps, Utilisation, +2 Science Students.

## I. INTRODUCTION:

   Educational institutions, government offices, and public institutions have been significantly impacted during the pandemic. This has led to setbacks in people's lives and the economy, with a major impact on students' future education. As a result, the demand for online education has increased significantly. Technology such as smartphones, laptops, and computers has become crucial for supporting education. Platforms like Google Meet, Zoom, and Microsoft Teams have facilitated online learning. The closure of schools and colleges due to the

pandemic has made online education habitual for students, including those in rural areas. Additionally, educational apps and technology have become valuable tools for +2 science students, with their adoption influenced by factors such as ease of use, perceived usefulness, enjoyment, and compatibility with learning styles. Various studies have highlighted the importance of understanding students' attitudes toward learning apps for more effective integration into the curriculum. This understanding can help create more user-friendly and effective learning apps tailored to students' specific needs and preferences.

## II. NEED AND IMPORTANCE OF THE STUDY:

The investigation of the use of learning apps by students pursuing the +2-science stream is crucial in today's education landscape. As technology becomes increasingly widespread, it's important to comprehend students' viewpoints and acceptance of learning apps to shape educational policies. The findings of the study provide valuable insights into students' preferences and requirements, demonstrating the potential advantages of integrating educational apps into the curriculum. By identifying the factors that influence students' usage, such as usefulness and ease of use, educators and policymakers can enhance the effectiveness of learning apps. The study also explores gender differences, underscoring the significance of considering diverse student groups in the design and implementation of educational technologies. This research contributes to the efforts to utilize technology for educational improvement and underscores the necessity for continual innovation in educational practices.

## III. REVIEW OF RELATED LITERATURE:

This study observed the influence of e-learning on the cognitive, affective, and behavioral aspects of students (Martin et. al,2022). The results showed that e-learning has a greater impact on these areas when compared to face-to-face learning. Furthermore, the impact is more pronounced in higher education as compared to basic, mid-level, and upper-secondary education, **Lizzeth Navarro-Ibarra et al (2023).** It is revealed that faculty mostly used videos, lectures, images, and website links. YouTube, specifically YouTube Edu and YouTube School, TED Talks and TED-Ed, and Khan Academy were identified as the most frequently used OER repositories. The results indicated that the majority of faculty members intend to adopt OER, **Llanda (2023).** The study discovered that faculty members use class presentations, images, and videos as the most prevalent OER content, indicating their efficacy in enhancing instructional materials. Teachers included OER in their class plans as supplementary materials for students, as well as in their coursework and research, as evidenced by the studies performed by Karipi (2020) and Bharti and Leonard (2021), **Al-Zahrani (2023).** It is stated that the perceptions and preferences of +2 science students regarding learning apps. Results indicate a varied spectrum of attitudes, influenced by factors such as prior experience with technology, learning styles, and individual preferences. The study underscores the need for customizable and adaptive learning apps to cater to diverse student needs and preferences, **Khan, F & Ali. S (2022).** They explore the impact of learning app integration on classroom dynamics and student engagement. Educators reported positive outcomes, including increased student participation, personalized learning experiences, and enhanced teacher-student interactions. However, challenges such as technical issues and resource constraints were also noted, emphasizing the importance of adequate support and training for effective implementation, **Anderson, K &**

**Wilson, B. (2021).** It explored & found the factors influencing the attitude of +2 science students toward learning apps. Through survey data analysis, factors such as perceived usefulness, ease of use, and social influence were identified as significant predictors of attitude toward learning apps. The study emphasizes the importance of addressing these factors to promote positive attitudes and effective usage of learning apps **Patel, R & Shah. S (2021).** The study examines the impact of learning apps on academic performance and attitude among +2 science students. Results indicate a significant positive correlation between the use of learning apps and academic performance. Additionally, students exhibited a favourable attitude toward learning apps, citing convenience, interactivity, and accessibility as key factors influencing their usage, **Brown, L. & Clark, E 2020).** The study examines gender differences in attitudes toward learning apps among+2 science students. Findings reveal nuanced variations in attitudes, with female students demonstrating slightly higher levels of perceived usefulness and enjoyment compared to their male counterparts. The study highlights the importance of considering gender dynamics in the design and implementation of learning apps, **Wang, J & Liu, Y (2020).** The study revealed & examines the influence of socioeconomic factors on attitudes toward learning apps among +2 science students. Results indicate that socioeconomic background can significantly impact access to technology resources and attitudes towards learning apps. Students from higher socioeconomic backgrounds tend to exhibit more positive attitudes, highlighting the importance of addressing equity issues in technology-enhanced learning initiatives, **Lee, C & Kim, S (2020).**

## IV. OBJECTIVES OF THE PRESENT STUDY:

The following objectives are framed for the present study:

1. To study the level of utilisation of + 2 science students' towards learning apps.
2. To study the difference between male and female + 2 science students' utilisation towards learning apps.
3. To study the difference between urban and rural + 2 science students' utilisation towards learning apps.
4. To study the relationship between male and female + 2 science students' utilisation towards learning apps.
5. To study the relationship between urban and rural + 2 science students' utilisation towards learning apps.

## V. HYPOTHESES OF THE STUDY:

**H₀1:** There is no significant difference between male and female + 2 science students' utilisation towards learning apps.

**H₀2:** There is no significant difference between urban and rural + 2 science students' utilisation towards learning apps.

**H₀3:** There is no significant relationship between male and female + 2 science students' utilisation towards learning apps.

**H₀4:** There is no significant relationship between urban and rural + 2 science students' utilisation towards learning apps.

**VI. METHODOLOGY:** The researcher employed the descriptive survey method.

**VII. POPULATION:** The study population included 163 + 2 science students studying in Pre-University colleges in the Davanagere District.

**VIII. SAMPLE:** The study's representative sample included 30 students from two Pre-University colleges in the Davanagere District: Karnataka State, India for the Study. The researcher used the stratified random sampling technique.

**IX. TOOLS USED:** The researcher constructed and validated the following tool in the study.

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**X. STATISTICAL TECHNIQUES USED:** The data is analysed by using the statistical technique of percentage analysis, t-test & correlation.

**XI. THEORETICAL FRAMEWORK:**

The researcher employed the descriptive survey method. And used the tools which are constructed and validated by the researcher as follows. Utilisation of Learning Apps Among +2 Science Students, Attitude of Learning Apps Among +2 Science Students inventory for the collection of data respectively. The data has been analyzed by using the statistical technique of percentage analysis, t-test & correlation.
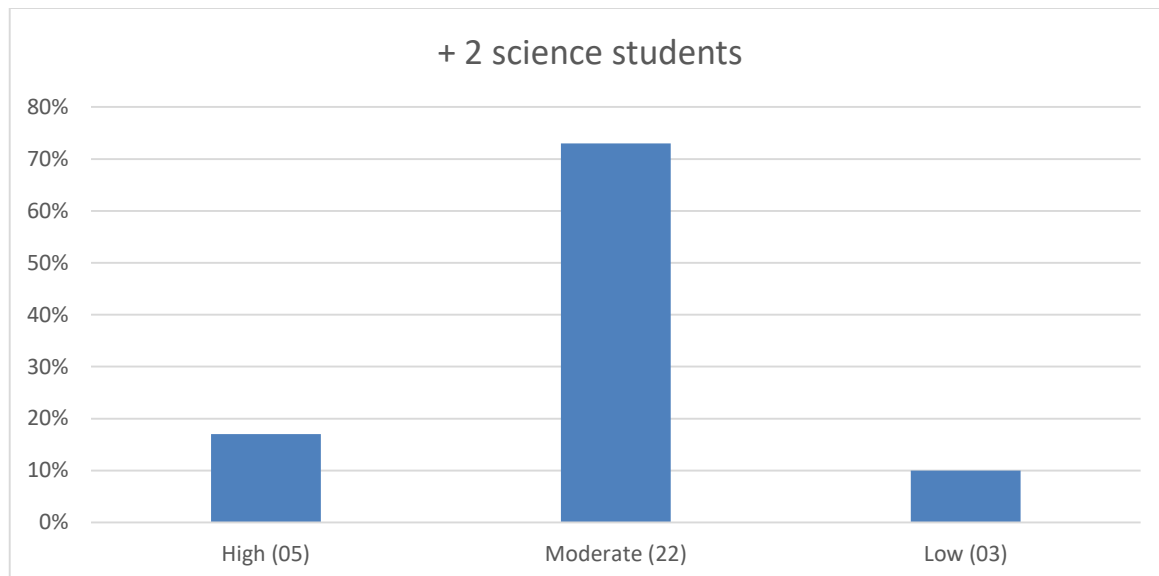
**XII. ANALYSIS OF DATA:**

**OBJECTIVE- 01:** To study the level of utilisation of + 2 science students' towards learning apps.

**Table -01**

Table showing the + 2 science students' total level of utilisation towards learning apps.

| VARIABLES | | + 2 SCIENCE STUDENTS |
|---|---|---|
| + 2 SCIENCE STUDENTS' LEARNING APPS. UTILISATION   N=30 | High (05) | 17% |
| | Moderate (22) | 73 % |
| | Low (03) | 10 % |

**Figure-01**



The data has been analyzed by using percentage analysis. It has been found from Table -01 that there is moderate utilisation of Learning Apps among + 2 science students' in total.  The table depicts moderate awareness (73%) among teacher educators compared to the high (17%) & low (10%) awareness levels.

**OBJECTIVE- 02:** To study the difference between male and female + 2 science students' utilisation towards learning apps.

**H₀1:** There is no significant difference between male and female + 2 science students' utilisation towards learning apps.
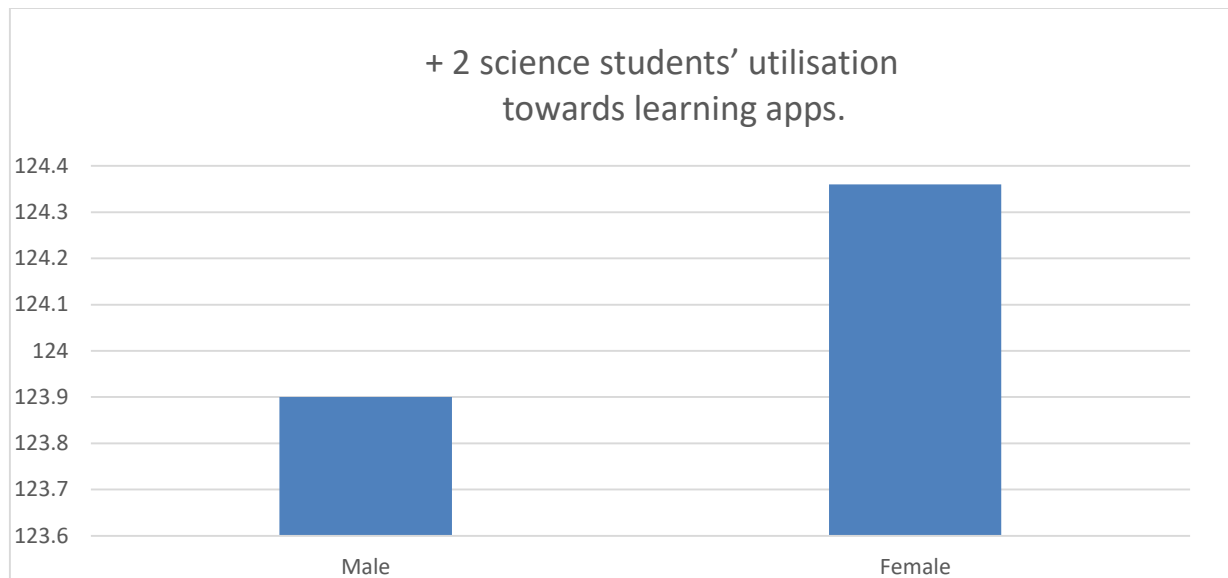
**Table -02**

Table showing the number of Male and Female, their mean score, standard deviation, and 't' value

| GENDER | N | M | SD | t-value | Significance at 0.05 level |
|--------|---|---|----|---------|----------------------------|
| **Male** | 11 | 123.90 | 7.98 | .963 | **NS** |
| **Female** | 19 | 124.36 | 8.67 | | |

NS= Not Significant

It is clear from the table- 02 that the calculated 't' value of .963 is lesser than the criterion value of 2.048 at a 0.05 level of significance. So, the null hypothesis is **accepted** that "There is no significant difference between male and female + 2 science students' utilisation towards learning apps".

**Figure-02**



+ 2 science students' utilisation towards learning apps.

When descriptively analysed the above graph depicts there is comparatively a high utilisation of learning apps among female students compared to the male students.

**OBJECTIVE- 03** To study the difference between urban and rural + 2 science students' utilisation towards learning apps.

**H$_0$2:** There is no significant difference between urban and rural + 2 science students' utilisation towards learning apps.
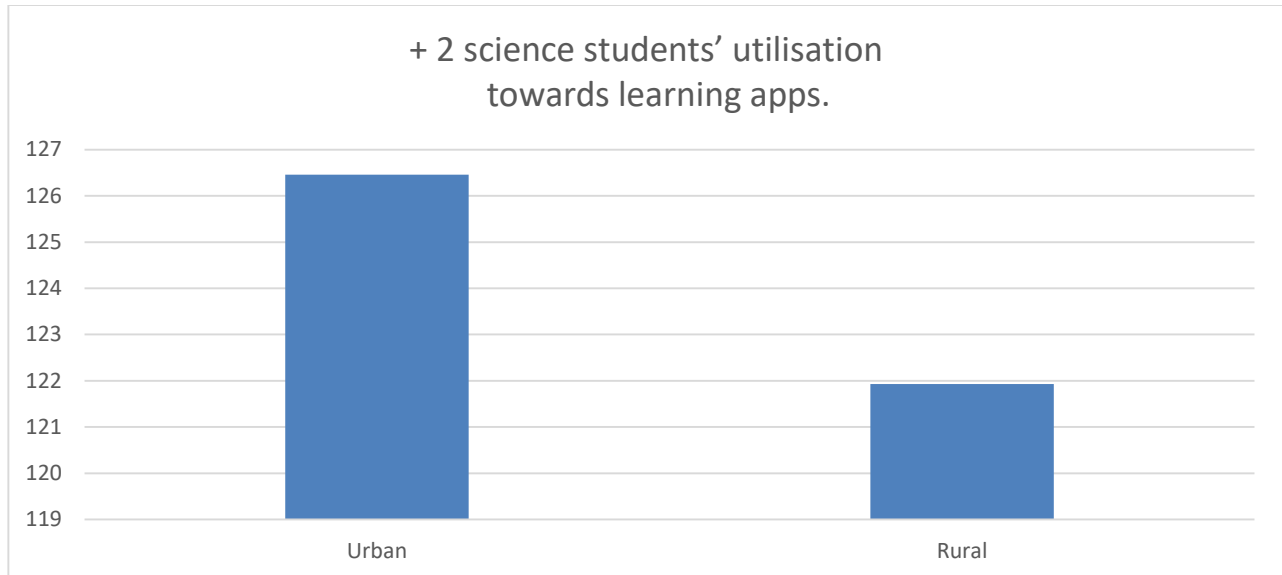
**Table -03**

Table showing the number of Urban and Rural, their mean score, standard deviation, and 't' value

| Locality | N | M | SD | t-value | Significance at 0.05 level |
|---|---|---|---|---|---|
| **Urban** | 15 | 126.46 | 10.73 | .003 | **NS** |
| **Rural** | 15 | 121.93 | 4.00 | | |

NS= Not Significant

It is clear from the table- 03 that the calculated 't' value of .003 is lesser than the criterion value of 2.048 at a 0.05 level of significance. So, the null hypothesis is **accepted** that "There is no significant difference between urban and rural + 2 science students' utilisation towards learning apps".

**Figure-03**



+ 2 science students' utilisation towards learning apps.

When descriptively analysed the above graph depicts there is comparatively a high utilisation of learning apps among urban students compared to rural students.
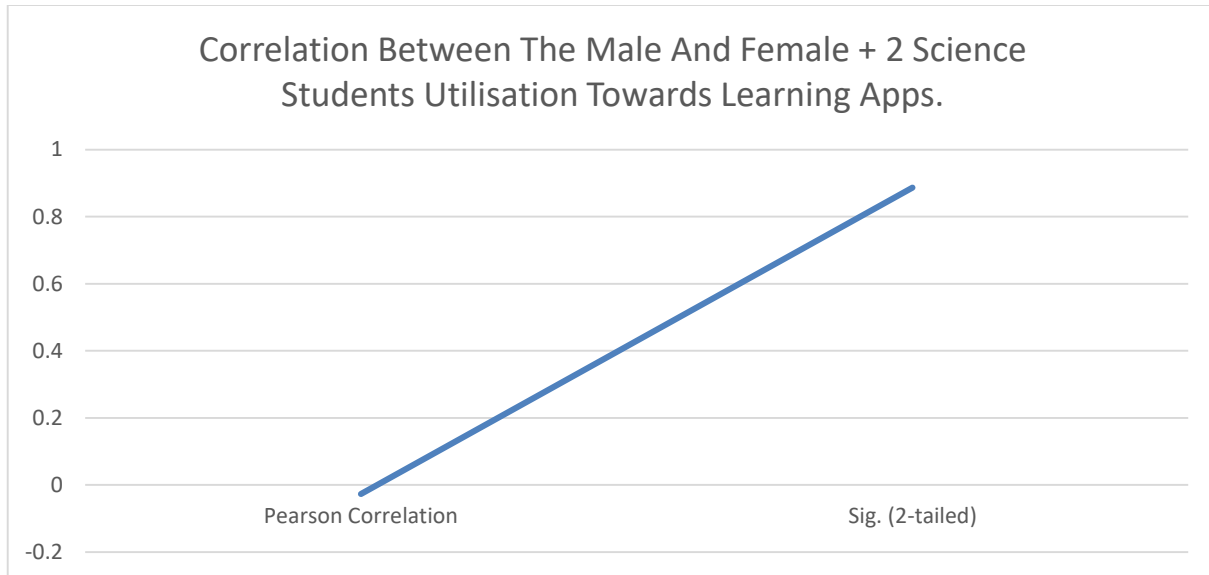
**OBJECTIVE- 04:** To study the relationship between male and female + 2 science students' utilisation towards learning apps.

**H₀3:** There is no significant relationship between the male and female + 2 science students' utilisation towards learning apps.

**Table -04**

Table showing the correlation between the there is no significant difference between male and female + 2 science students utilisation towards learning apps.

| | | + 2 SCIENCE FEMALE STUDENTS UTILISATION |
|---|---|---|
| + 2 SCIENCE MALE STUDENTS UTILISATION | Pearson Correlation | -.027 |
| | Sig. (2-tailed) | .887 |
| | N | 30 |
| "CORRELATION IS NOT SIGNIFICANT AT THE 0.01 LEVEL (2-TAILED) | | |

**Figure-04**

Correlation Between The Male And Female + 2 Science
Students Utilisation Towards Learning Apps.



When descriptively analysed the above graph it depicts there is comparatively **No Significant relationship** between male and female + 2 science students utilisation towards learning apps.
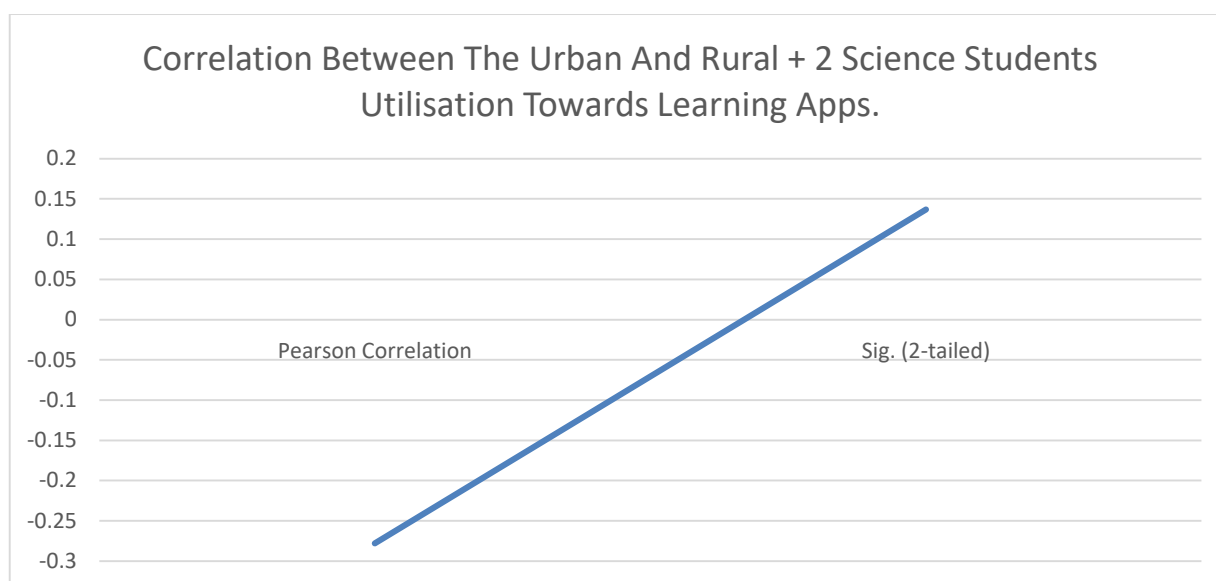
**OBJECTIVE- 05:** To study the relationship between urban and rural + 2 science students' utilisation towards learning apps.

**H₀4:** There is no significant relationship between the urban and rural + 2 science students' utilisation towards learning apps.

**Table -05**

Table showing the correlation between the There is no significant difference between urban and rural + 2 science students utilisation towards learning apps.

| | | + 2 SCIENCE RURAL STUDENTS' UTILISATION |
|---|---|---|
| + 2 SCIENCE URBAN STUDENTS' UTILISATION | Pearson Correlation | -.278 |
| | Sig. (2-tailed) | .137 |
| | N | 30 |
| "CORRELATION IS NOT SIGNIFICANT AT THE 0.01 LEVEL (2-TAILED) | | |

**Figure-05**



Correlation Between The Urban And Rural + 2 Science Students Utilisation Towards Learning Apps.

When descriptively analysed the above graph, it depicts there is comparatively **No Significant relationship** between urban and rural + 2 science students' utilisation towards learning apps.

## XIII. FINDINGS OF THE STUDY:

The study found a moderate level of + 2 science students' utilisation towards learning apps in total. Except these, the following are the other findings of the present study.

1. The female + 2 science students have the higher level compared to the male + 2 science students about their utilisation towards learning apps.
2. The urban + 2 science students have the higher level compared to the rural + 2 science students about their utilisation towards learning apps.
3. There is no significant relationship between male & female + 2 science students about their utilisation towards learning apps.
4. There is no significant relationship between urban & rural + 2 science students about their utilisation towards learning apps.

## XIV. CONCLUSION:

The study investigated the usage of learning apps by students studying +2 science subjects, focusing on how they perceive and accept these technological tools. The results show that the majority of students use learning apps to a moderate extent, with a significant number displaying a positive attitude towards their use. However, some students may encounter challenges due to limited access to resources and technical support. It is important to raise awareness about this issue. As technology continues to advance, educational apps offer a convenient and engaging platform for students to improve their learning experience. Nevertheless, educators and policymakers need to ensure that these tools are designed and implemented effectively, taking into account factors such as usability, relevance, and equal access.

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