Journal of East-West Thought
ISSN: *2168-2259 (online)*
(https://jetjournal.us/)
Volume 15, Issue 2, April-June – 2025 Special Issue 1

Impact Factor: 7.665, Peer Reviewed and UGC CARE I

ASSESSING THE IMPACT OF KNEWTON ON DEVELOPING TEACHING EFFECTIVE AND INTERACTIVE LESSONS OF B ED COLLEGE STUDENTS

Dr. Priya N. Kurkure, Assistant Professor**,** R. C. Patel College of Education Shirpur

Abstract:

This study explores the use of Knewton, an AI-powered tool, in enhancing teaching and learning outcomes, particularly in B.Ed. programs. The research investigates B.Ed. students' knowledge of AI tools and evaluates Knewton's effectiveness in designing interactive lessons, creating engaging content, and supporting lesson organization. A quantitative approach, using a paper-based survey, was employed, with 100 first-year B.Ed. students participating. The results show that while teachers have a basic understanding of AI tools and are moderately confident in using them, Knewton is perceived as highly effective in improving lesson design, tracking student progress, and organizing content. Teachers found Knewton useful in creating interactive lessons and easily integrating different content types. The study reveals that Knewton not only helps teachers in lesson planning but also enhances student engagement by providing personalized learning experiences. The findings also indicate that teachers feel more confident in their ability to use Knewton after experiencing its benefits. Overall, Knewton is seen as a valuable tool that saves time, improves teaching effectiveness, and contributes to a more personalized and interactive learning environment. This study highlights the potential of AI in transforming educational practices and teacher training.

Key Words: AI powered tools, Knewton, Effective Teaching, Interactive Teaching, Training, Lesson Design.

Introduction:

The use of technology in education has changed a lot over time, improving the way we teach and learn. From the early days of smart teaching tools to today's use of artificial intelligence (AI), technology has become an important part of education. Recently, AI in education has become more common. AI tools like learning platforms, tutoring systems, and automatic assessment tools are changing how teachers teach. These tools help students learn in a way that fits their needs, make learning more interesting, and make grading easier for teachers. For example, AI learning platforms can adjust the difficulty of lessons based on how well each student is doing, offering a more personalized experience. (Chandhok & Singh,2024)

AI is also helping to create better ways of assessing students. AI assessments can look at students' answers, find areas where they need more help, and give instant feedback, so teachers don't have to spend as much time grading. AI chatbots and virtual teaching assistants are also available to answer questions, give extra resources, and even support students with mental health issues.

Even though AI brings many benefits to education, there are some concerns, like protecting privacy, preventing bias in the systems, and making sure everyone has access to the technology. It's important to address these issues and make sure AI is used fairly in schools.

Journal of East-West Thought
ISSN: *2168-2259 (online)*
(https://jetjournal.us/)
Volume 15, Issue 2, April-June – 2025 Special Issue 1
Impact Factor: 7.665, Peer Reviewed and UGC CARE I

As AI continues to grow, it's important to focus on being open, responsible, and inclusive when using it in education. (Ou, 2024).

The introduction of adaptive learning systems has greatly changed education, offering a more personalized and efficient way for students to learn. These systems use smart algorithms and data analysis to adjust the learning process according to each student's needs, skills, and learning style. This is especially useful for teacher training, as it allows educators to customize their teaching methods to fit the diverse needs of their students. With adaptive learning, teachers can create a more inclusive and effective classroom where students can progress at their own speed and achieve better results. Additionally, these systems give teachers important information about how students are learning, helping them spot areas where students may be struggling and adjust their teaching accordingly.

The rise of AI-powered platforms like Knewton has further advanced adaptive learning. Knewton uses machine learning to analyze large amounts of data on how students learn, giving teacher's immediate insights into their strengths, weaknesses, and preferred learning styles. With this information, teachers can develop personalized lesson plans that cater to the specific needs of each student. Knewton also provides interactive learning materials such as games, simulations, and videos that can be used alongside traditional teaching methods. By using AI and adaptive learning, platforms like Knewton are improving teaching quality, helping students succeed, and changing the way we approach education. As these AI-based platforms keep developing, they are expected to play an even bigger role in shaping the future of teacher training and educational technology.

Technology has greatly changed education, altering how students learn and how teachers teach. Adaptive learning technologies, such as Knewton, have been a key part of this change. These technologies use data and smart algorithms to offer personalized learning experiences based on each student's needs, strengths, and learning styles. Knewton, for example, provides immediate feedback, tests, and suggestions to students, helping them learn at their own pace and address areas where they might be struggling. Research shows that adaptive learning tools like Knewton can improve student performance, leading to better academic results, higher retention rates, and more engaged students (Heffernan & Koedinger, 2002). Additionally, these tools assist teachers in spotting knowledge gaps and adjusting their lessons, making teaching more effective.

Need for Effective and Interactive Teaching:

Effective and engaging teaching methods are crucial in B.Ed. programs, as traditional lecture-based teaching often fails to keep students interested or help them learn deeply. Research has shown that interactive and hands-on learning, such as simulations, games, and real-world activities, can greatly improve student motivation and learning (Hamelo-Silver, 2004). Additionally, using technology in education can enhance teacher training programs by providing future teachers with the opportunity to practice important skills like lesson planning, classroom management, and assessment.

Journal of East-West Thought
ISSN: *2168-2259 (online)*
(https://jetjournal.us/)
Volume 15, Issue 2, April-June – 2025 Special Issue 1
Impact Factor: 7.665, Peer Reviewed and UGC CARE I

Knewton's adaptive learning platform can play a key role in improving teaching methods in B.Ed. programs. By using Knewton, B.Ed. students can access a variety of interactive learning materials, including personalized learning paths and real-time feedback. The platform also supports collaboration and peer feedback, helping students develop skills in communication, teamwork, and problem-solving. Studies have shown that adaptive learning systems like Knewton can lead to better student outcomes, higher teacher effectiveness, and increased student engagement. By integrating Knewton into B.Ed. programs, teacher educators can help future teachers develop the skills and knowledge they need to create effective and interactive lessons, ultimately improving the quality of teaching and learning outcomes.

Objectives of Study:

1. To investigate the knowledge of AI powered tools of B. Ed. Students.
2. To assess how Knewton helps B. Ed. Students in designing interactive lessons.
3. To evaluate how Knewton facilitates the creation of interactive teaching content.

Methodology:

Being descriptive in nature this research study followed quantitative research using paper-based survey.

Sample:

A sample of 100 B Ed. students studying in B Ed First year was purposively selected so that all first year students can participate in it.

Tool:

A self-constructed questionnaire was the primary tool of data collection. Questionnaire covered 14 questions beyond the demographic statements. Out of 14 questions, 3 questions were open ended where respondents had to notify in detail. The collected data was treated using t-test.

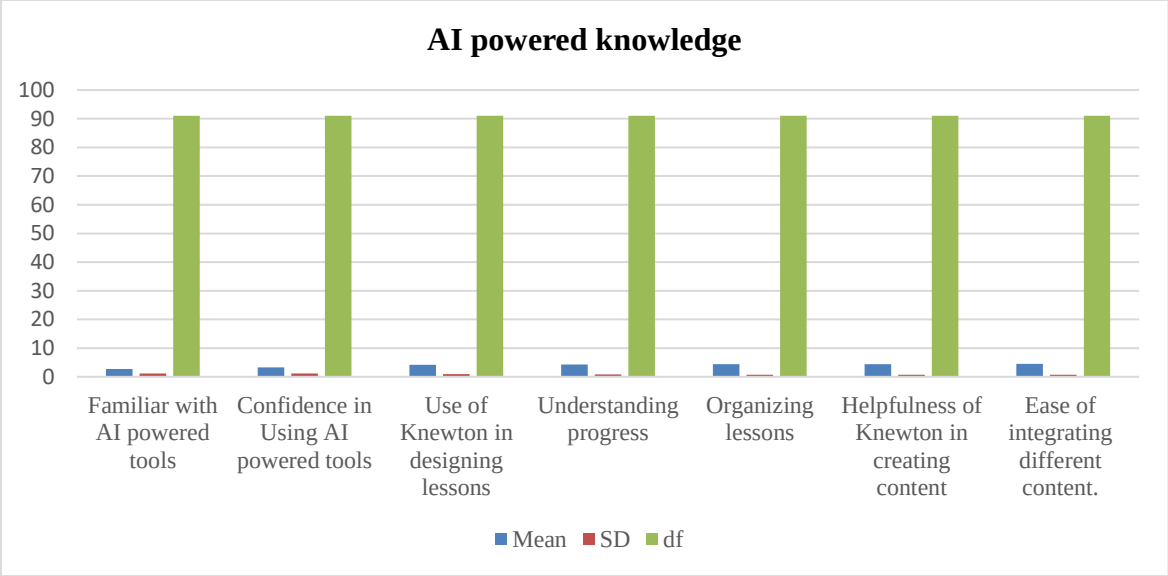
Data Analysis and Interpretation:

Table One

AI Powered Knowledge

Variable	Mean	SD	df
Familiar with AI powered tools	2.75	1.21	91
Confidence in Using AI powered tools	3.28	1.14	91
Use of Knewton in designing lessons	4.16	0.92	91
Understanding progress	4.29	0.80	91
Organizing lessons	4.41	0.75	91
Helpfulness of Knewton in creating content	4.45	0.78	91
Ease of integrating different content.	4.53	0.72	91

Journal of East-West Thought
ISSN: *2168-2259 (online)*
(https://jetjournal.us/)
Volume 15, Issue 2, April-June – 2025 Special Issue 1
Impact Factor: 7.665, Peer Reviewed and UGC CARE I



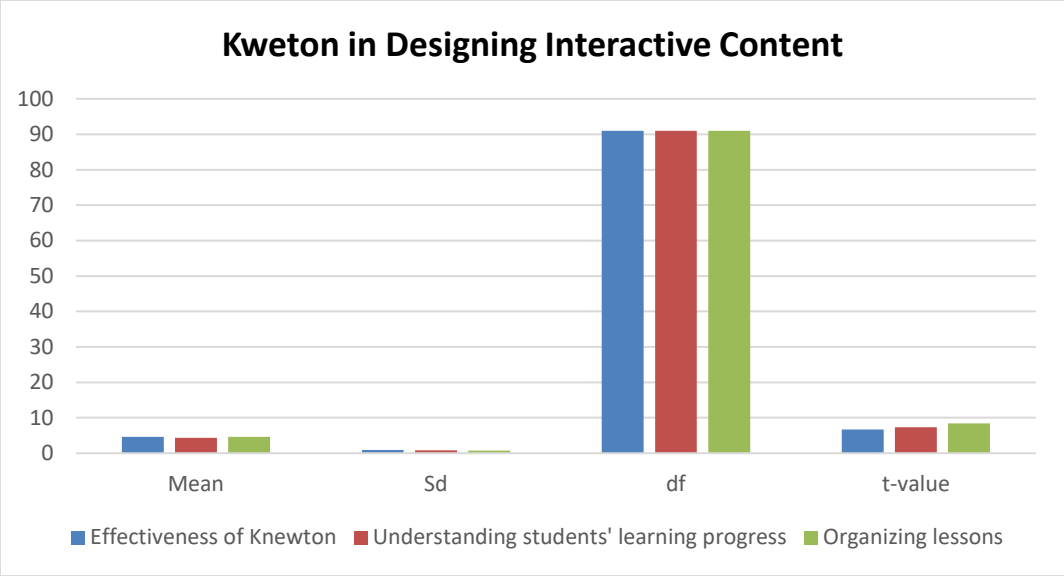
The table shows the results of a survey about Knewton, a tool for teachers.
Most teachers are moderately familiar with AI-powered tools (average score: 2.75).
Teachers are moderately confident in using AI tools (average score: 3.28).
Teachers think Knewton is very effective in:
Designing interactive lessons (average score: 4.16)
Understanding students' learning progress (average score: 4.29)
Organizing lessons (average score: 4.41)
Creating engaging content (average score: 4.45)
Integrating different types of content (average score: 4.53)

Table Two

Knewton in Designing Interactive Lessons

Variable	Mean	Sd	df	t-value
Effectiveness of Knewton	4.6	0.92	91	6.71
Understanding students' learning progress	4.37	0.80	91	7.35
Organizing lessons	4.66	0.75	91	8.45

Journal of East-West Thought
ISSN: *2168-2259 (online)*
(https://jetjournal.us/)
Volume 15, Issue 2, April-June – 2025 Special Issue 1
Impact Factor: 7.665, Peer Reviewed and UGC CARE I



The mean scores for the effectiveness of Knewton in designing interactive lessons (4.06), understanding students' learning progress (4.37), and organization of lessons (4.66) are all above 4, indicating a high level of agreement among respondents that Knewton is effective in these areas.

The standard deviations for these variables are relatively low (0.92, 0.80, and 0.75), indicating a high level of consistency in respondents' opinions.

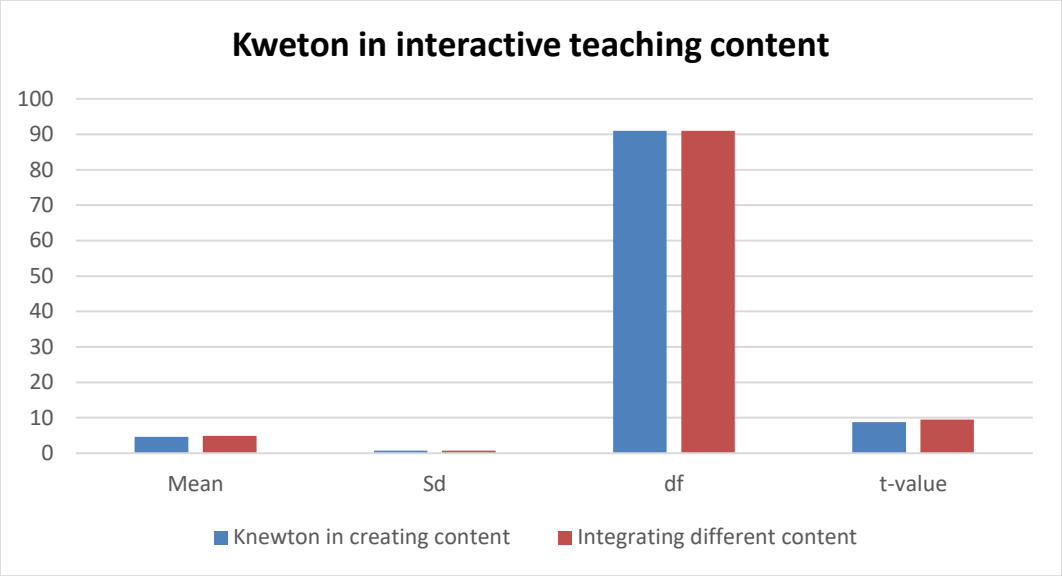
The t-values for these variables (6.71, 7.35, and 8.45) are all significant, indicating that the mean scores are significantly higher than the neutral point (3).

Table Three

Knewton in Interactive Teaching Content

Variable	Mean	SD	df	t-value
Knewton in creating content	4.62	0.78	91	8.82
Integrating different content	4.85	0.73	91	9.49

Journal of East-West Thought
ISSN: *2168-2259 (online)*
(https://jetjournal.us/)
Volume 15, Issue 2, April-June – 2025 Special Issue 1
Impact Factor: 7.665, Peer Reviewed and UGC CARE I



The mean scores for how helpful Knewton is in creating engaging content (4.62) and how easy it is to integrate different types of content (4.86) are both above 4. This shows that most respondents agree that Knewton is good in these areas.

The standard deviations for these scores are fairly low (0.78 and 0.72), meaning there is a lot of agreement among respondents about their opinions.

The t-values for these scores (8.83 and 9.51) are both high, showing that the average scores are significantly higher than the neutral point of 3.

Findings of Study:

- Most teachers have a basic understanding of AI-powered tools.
- Teachers feel somewhat confident in using AI tools.
- Knewton is seen as helpful for creating interactive lessons.
- Knewton helps teachers track how well students are learning.
- Knewton makes it easier for teachers to organize their lessons.
- Knewton is useful for creating interesting content for students.
- Teachers find Knewton simple to use for combining different types of content.
- Teachers have a much better view of Knewton's usefulness after trying it.
- Teachers say Knewton saves time in lesson planning and tracking students' progress.
- Overall, teachers find Knewton to be a helpful tool for teaching and learning.
- Knewton helps B.Ed. students create interactive lessons, track student progress, and organize lessons effectively.

Conclusion:

The study shows that while most teachers have a basic understanding and moderate confidence in using AI tools, they find Knewton highly effective in creating interactive lessons, tracking students' progress, and organizing lessons. Teachers appreciate Knewton's ability to make content creation engaging and to integrate various teaching materials with ease. After using Knewton, teachers reported saving time and having a better overall view of its usefulness

Journal of East-West Thought
ISSN: *2168-2259 (online)*
(https://jetjournal.us/)
Volume 15, Issue 2, April-June – 2025 Special Issue 1

Impact Factor: 7.665, Peer Reviewed and UGC CARE I

in teaching. Overall, Knewton is seen as a valuable tool for improving teaching methods and enhancing learning outcomes, especially for B.Ed. students.

References:

1. Chandhok, V. & Singh, G. (2024). The Evolution of Learning: A Survey of AI Technologies in Education. International Journal of Advanced Research 12(4): 2024, 491-495. DOI:10.21474/JAR01/18573.
2. Ou, S. (2024). Transforming Education: The Evolving Role of Artificial Intelligence in the Students' Academic Performance. International Journal of Education and Humanities, Vol. 13-2, April, 2024, 163-173. DOI: 10.54097/cc1x7r95.
3. Hmelo-Silver, C. E. (2004). Problem-based learning: What and how do students learn? Educational Psychology Review, 16(3), September, 2004, 235-266. DOI: 10.1023/B:EDPR0000034022.16470.f3.https://www.researchgate.net/publication/226053277.
4. Heffernan, N. & Koedinger, K. P. (2002). An Intelligent Tutoring System Incorporating a Model of an Experienced Human Tutor. Cambridge Mellon University, 596-608. https://pact.cs.cmu.edu/pubs/Heffernan%20&%20Koedinger%20ITS%2002.pdf.