



AI Tools and Their Impact on Listening and Visual Comprehension in Historical Lectures:

A Case Study of Second-Year English Students at the University of Frères Mentouri Constantine 1



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Fatiha SAHLI *

University of Constantine 1 (Algeria), sahli_fatiha@yahoo.fr

Abstract

Artificial Intelligence tools offer significant benefits in higher education, yet research has mainly focused on writing and productivity, overlooking listening and visual comprehension. This study addresses the gap by examining how Descript and Canva support second-year English students at the University of Frères Mentouri Constantine 1 in understanding complex historical lectures. A total of 65 students participated: The experimental group (30) used Descript for transcription and playback, and Canva for infographics and timelines; the control group (35) relied on note-taking and textbook visuals. A pre-test assessed prior knowledge of pre-Columbian America, while a post-test evaluated comprehension of the Maya, Aztec, and Inca civilizations. Results showed that the experimental group achieved higher scores, demonstrating improved listening accuracy and visual comprehension. These findings suggest that Canva and Descript can serve as effective instructional aids, enabling students to better grasp historical facts, analyze cultural symbols, and develop independent interpretations.

Keywords

Artificial Intelligence;
Canva;
Descript;
Historical lectures;
Listening and visual comprehension.

الكلمات المفتاحية

الذكاء الاصطناعي؛
كانفا؛
ديسكربت؛
محاضرات تاريخية؛
الاستماع والفهم البصري.

أدوات الذكاء الاصطناعي وتأثيرها على الاستماع والفهم البصري في المحاضرات التاريخية: دراسة حالة لطلاب السنة الثانية للغة الإنجليزية في جامعة الإخوة منتوري قسنطينة 1

ملخص

تقدم أدوات الذكاء الاصطناعي فوائد كبيرة في التعليم العالي، إلا أن الأبحاث ركزت بشكل أساسي على الكتابة والإنتاجية، متجاهلة الاستماع والفهم البصري. تتناول هذه الدراسة الفجوة من خلال دراسة كيفية دعم Canva و Descript لطلاب السنة الثانية في اللغة الإنجليزية بجامعة الإخوة منتوري قسنطينة 1 في فهم المحاضرات التاريخية المعقدة. شارك ما مجموعه 65 طالباً: استخدمت المجموعة التجريبية (30) Descript للنسخ والتشغيل، و Canva للرسوم البيانية والجداول الزمنية؛ اعتمدت المجموعة الضابطة (35) على تدوين الملاحظات والصور المدرسية. قُيِّم اختبار قبلي للمعرفة السابقة بأمريكا ما قبل كولومبوس، بينما قُيِّم اختبار لاحق فهم حضارات المايا والأزتك والإنكا. أظهرت النتائج أن المجموعة التجريبية حققت درجات أعلى، مما يدل على تحسن دقة الاستماع والفهم البصري. تشير هذه النتائج إلى أن Canva و Descript يمكن أن تكون بمثابة مساعدات تعليمية فعالة، مما يمكن الطلاب من فهم الحقائق التاريخية بشكل أفضل، وتحليل الرموز الثقافية، وتطوير تفسيرات مستقلة.

* Corresponding author. E-mail : sahli_fatiha@yahoo.fr
Doi:

I- Introduction :

When we examine the published research products about the effects of Artificial Intelligence (AI) in higher education, we find that many studies emphasise its role in enhancing students' writing performance. They suggest that AI enables students to insert a large amount of text, and then they can generate a summary for them. In addition, AI-generated content can help establish clear research objectives and design effective research projects, which many students need when writing their master's or doctoral dissertations. Despite the demonstrated benefits of AI in supporting the writing process, there remains a critical need to investigate its pedagogical integration for enhancing students' listening and visual comprehension of historical lectures. It is widely accepted that EFL students find it a daunting challenge to comprehend historical courses due to the complicated nature of their discourse. For this reason, making available AI-based tools of automatic speech recognition, real-time transcription, and summarization provides a potential solution. This paper critiques previous studies and argues that AI tools have been shown to facilitate information processing, particularly in enhancing students' listening and visual comprehension of spoken lectures in the field of history. This empirical study investigates how AI tools, such as Canva and Descript, could be used in class to help second year students of English engage with historical content, specifically the course of pre-Colombian America, that is displayed visually (e.g., charts and images). This approach enables teachers or instructors to transform spoken lectures into images. It then allows students to comprehend or interpret historical events more effectively without relying solely on traditional revision methods such as note-taking or textbook illustrations.

This study attempts to answer the following major research question: Can AI tools such as Canva and Descript be reliable for understanding complex historical lectures delivered by teachers in the classroom? A set of secondary research questions are asked too:

1. In what ways can Descript improve students' ability to process and retain spoken historical content?
2. How does Canva elevate students' comprehension of visual components such as timelines, symbols, sprites and political systems when involved in historical narratives?
3. What are the distinctions in student learning tasks when they are utilizing AI tools versus revising traditionally?
4. How do students view the use of AI tools when studying complex historical content compared to traditional lessons?
5. Can the use of AI tools promote greater student engagement and critical thinking in history classes?

I.1. Using AI-based Visual Aids for Teaching Tasks

The use of AI in higher education offers significant advantages not only for learning tasks but also for teaching processes. Instructors, not only in Algeria but worldwide, favour AI-generated content because it saves time and enhance students' understanding of complex academic information across various disciplines (Dhamija & Dhamija, 2025, p. 45). Although many teachers prefer the use of traditional teaching methods, AI-based visual aids have been shown to facilitate a more personalized educational experience. In her empirical research, Manal Almuhanha (2025) demonstrates how K- 12 teachers in Arab countries use AI-based multimedia resources to facilitate the learning and understanding process among students. Based on interviews and audio-visual materials, the author identifies four key strategies that enable teachers to implement AI in the classroom. They are enhancing AI literacy, developing soft skills, enhancing extracurricular activities, and enhancing students' performance. The results reveal that the use of AI for teaching is a necessity, and teachers should instruct the students how to use these tools to achieve a more active and personalized learning (p. 10343).

The use of AI-based visual aids in EFL contexts helps students understand lectures and present information more effectively. These technologies provide dynamic and engaging content and address different learning styles and preferences. They also enhance overall student engagement and comprehension back in the classroom, as they provide clear subtitles and explanations for visual elements like speech in context. Researchers Nishida and Fujimoto (2025) reveal how EFL students use AI visual aids to achieve more effective learning strategies. Relying on semi-structured interviews and questionnaires, the authors find that students chose AI tools for understanding historical events, language accuracy, and managing speaking fluency. They concluded that AI visual tools could act as virtual instructors that help students develop critical thinking skills and self-directed language learning (pp. 1-4).

Tools like Canva offer significant advantages for advanced learning. In addition to its uses in oral presentations, some teachers employ it to visually represent the lectures, both in STEM and HSS disciplines. The application offers an option that allows users to select appropriate timelines, infographics, and imagery aligned with course objectives. In addition, it fosters students' engagement with historical content by encouraging critical thinking through creative expression. Very recently, Ristanti and Isdaryanti (2025) inspected the reasons teachers use Canva infographics to apply successful teaching techniques. The results obtained in their study reveal a positive change in the learning outcomes. The pretest scores increase from 52 to 80 (pp. 7985-7990). In sum, they conclude that both students and teachers respond very positively, indicating that multimedia resources in the classroom are worthwhile.

Not only can Canva assist with improving teaching effectiveness, it can address the various types of learners; visual and spatial learners. Astaño (2025) investigates how Canva supports visual and auditory learning for students' learning. He analyzes 22 studies (26 datasets, n=1540) between 2022 and 2024 - mostly in Indonesia. The analyses have shown a very large, significant positive effect of $g=1.703$, $p<.001$, but concerns of quality of the studies, diversity of the studies, and

publication bias. The analyses identify the effect sizes varied by country and subject area, and in Indonesia English classes with lower and upper-level tertiary student learning showed a greater impact (pp.1333-1340). Presenting

information through infographics, diagrams, or color-coded layouts allows students to build bridges between that idea and that visual cue. Spatial learners are also benefited through organized presentation, including timelines, flow charts, and confirmed images; the learner has a clear pathway.

Using AI-generated visual aids in the EFL context, it is argued, promotes active learning. Students are often more active and productive when working with visual materials. In effect, such tools help them look at difficult concepts, collaborate on multimodal projects, and receive feedback rapidly so their experience is informal while communicating with and providing feedback to other learners. These materials can also be used flexibly in approaches to use either a strict process or take advantage of learners who are primarily visual or auditory and have different approaches. This means students when they use the information in ways helps them connect with and ultimately retain it better. The AI-generated materials promote critical thinking and communication while blending and interacting in artistic ways. Aluko et al. (2025) examine how AI learning materials, more specifically generative AI visuals, support active learning strategies in higher education. Their large-scale research surveyed 218 tutors and students in the UK. The authors indicate that “a holistic mixed-methods research approach may improve generalizability of the findings with a wider sample of research while improving the range and stability of data to be analyzed.” (2025).

I.2. The Importance of Using AI-based Visual Aids for Understanding Complex History Lectures

It is widely that EFL students find it difficult to understand historical lectures due to their abstract and information- dense nature, while, however, AI-based visual aids enhance their comprehension and engagement. Certainly, these tools simplify complex historical abstracts and enable students to develop analytical and interpretive skills. In their study, Abu Mansour et al.(2024) inspect the impact of integrating multimedia technologies into education, and the task is to evaluate their impact on students' comprehension of historical and Islamic culture at Azizan Primary School in Indonesia. Their findings indicate that 91.5% of the variation in learning interest is explained by the media. They also argue that the use of computer- based interactive videos helps foster students understanding of complex historical lectures delivered by the teachers in the classroom (2023). It could be said that AI-based visual tools not only clarify complex content, but build and encourage deeper levels of analyzing events and facts as they pertain to history.

In addition, AI visual aids play an important role in improving students' retention of historical knowledge. They reinforce key dates, figures, and causal relationships more effectively than traditional text-based lectures. Together the three visualization tools (interactive timelines, virtual maps, and infographics) produced by AI afford students the opportunity to more easily and accurately understand/encounter complex historic events. The hope is that students obtain a deeper and lasting understanding of material learned. Drawing on the findings from his master dissertation, Walls (2024) suggests that integrating AI visual aids into a high school United States history class enables students to develop critical thinking and interpretive skills that traditional teaching methods often fail to achieve. He asserts that visuals like photos, videos, maps, etc., allow students to deal with the sophisticated mess of historical facts and events (pp. 30-40).

One benefit of using AI visual aids in history education is that they help students think critically. Luprichová (2025) explores the utilization of AI tools among first-year students to deepen their understanding of historical lectures delivered by teachers at the university of Ss. Cyril and Methodius Trnava. The author employs artificial intelligence tools such as ChatGPT, Perplexity and HeyGen to delineate historical figures and determine AI presentations in seminar workshops. The author found that students achieve good grades when using AI tools, particularly due to improvements in creativity and critical thinking. She suggests that it is useful to employ advanced tools in British universities to enhance engagement with historical content (pp. 188-197).

The use of AI-driven visual tools in history teaching improves students' listening comprehension. Visuals such as maps, timelines, and historical scenes provide context to spoken information. When students listen to the lecturer and see a suitable visual, they link the auditory input to something tangible. This facilitates the dissemination of knowledge, where students become actively engaged in the lecture rather than being passive recipients of information (Gilea et al., 2025, p. 872). Besides the main goal of enhancing a deeper understanding of historical lectures, the use of these tools also encourages students to develop their analytical skills.

II– Methods and Materials

II.1. Context

When second-year English students were asked about their experience with American history lectures during the previous academic year, many reported difficulties in comprehending the content and memorising key events, figures, and dates. In response to these challenges, an experimental study was conducted in the English Department at the University of Frères Mentouri Constantine 1. The targeted module was American history, with a specific focus on the pre-Columbian period.

This historical period was selected because it presents a dense and conceptually demanding body of content that combines unfamiliar civilisations, complex socio-political systems, and abstract cultural concepts. Such characteristics make pre-Columbian America particularly suitable for examining students' listening and visual comprehension, as it requires learners to process extensive oral explanations alongside visual representations such as maps, timelines, and symbolic imagery.

To ensure methodological transparency and replicability, the tools and procedures employed in this study are presented precisely and without exaggeration. The research design, instructional tools, and data collection procedures are detailed in the Methods section, which is divided into clearly defined subsections. Each subsection addresses a specific component of the methodology, allowing other researchers to examine, replicate, or verify the study under comparable academic conditions.

II. 2. Description of Participants

A total of 65 students were divided into two groups, experimental and control. The experimental group included 30 students. They received a lecture using AI visual aids. The control group of 35 students, followed traditional teaching methods.

II. 3. Research Design and Procedure

To ensure objectivity and prevent cross-group influence, the experimental and control groups were taught separately throughout the intervention. For the experimental group, usage data were systematically collected from Descript, including replay frequency and total time spent reviewing transcripts, as well as from Canva, including the number of visual edits, time spent on design tasks, and the types of visual outputs produced. These indicators were used to explore the relationship between engagement with AI tools and learning outcomes.

In contrast, the control group relied exclusively on traditional learning practices, namely note-taking during lectures and the consultation of textbook images. Following the administration of the post-test, both groups completed a set of open-ended questions designed to identify the specific aspects of the lectures they found most challenging, the strategies they employed to understand the content, and the extent to which visual or audio support facilitated or hindered their comprehension.

In addition, classroom observations were conducted to document students' behavioural engagement and interactions with peers and the instructor during the instructional sessions. The full set of pre-test and post-test instruments is provided in Appendix I.

The lecture focused on three core systems—agriculture, architecture, and political organisation—of the Aztec, Maya, and Inca civilisations. These topics were selected because they represent fundamental dimensions through which pre-Columbian societies can be systematically compared and understood. Each system combines abstract concepts with concrete historical examples, making them particularly suitable for assessing both listening comprehension and visual understanding.

Agriculture involves processes, techniques, and environmental adaptation that require careful listening to explanatory discourse. Architecture relies heavily on visual interpretation, spatial awareness, and symbolic meaning, which makes it appropriate for evaluating visual comprehension through diagrams, images, and infographics. Political organisation integrates both abstract reasoning and factual knowledge, requiring students to process hierarchical structures, governance systems, and power relations presented orally and visually.

Together, these three systems provide a balanced and representative framework for examining how AI-based transcription and visualisation tools support students' comprehension of complex historical lectures.

II. 4. Procedure

First, all participants completed a pre-test designed to assess their prior knowledge of pre-Columbian America. The experimental group then received a brief training session on the use of Descript for lecture transcription and audio playback, and Canva for creating visual representations such as infographics and timelines based on the lecture content. The control group continued to follow traditional learning practices, including note-taking during the lecture and consulting textbook images.

Both groups attended the same history lecture under separate conditions to prevent any exchange of information. The experimental group was granted access to the AI tools during the lecture and in the revision phase immediately afterwards, whereas the control group relied solely on conventional materials. Following the instructional session, all students completed a post-test under identical conditions and responded to a set of short open-ended questions addressing the challenges they encountered, the strategies they employed to comprehend the lecture, and the perceived impact of audio or visual support on their understanding.

The experiment was conducted over a period of three instructional sessions (two weeks): one session for the pre-test and training, one for the lecture and tool-based engagement, and one for the post-test and qualitative data collection. Multiple-choice items were scored automatically, while short-answer responses were evaluated independently by two raters to minimise scoring discrepancies. For the experimental group, usage data from Descript and Canva were also collected for exploratory analysis of the relationship between tool engagement and learning outcomes.

II. 5. Data Collection

Data collection involved both quantitative and qualitative methods. Each participant undertook both a pre-test to establish baseline knowledge and a post-test to assess gains in listening accuracy and visual comprehension. The scores from the pre-tests (multiple-choice and short-answer items) were recorded and analysed descriptively.

III- Results

III. 1. Pre-test Analysis

The pre-test was administered to assess students' baseline understanding of pre-Columbian America prior to the introduction of AI-based visual aids. It aimed to determine participants' initial knowledge of key historical concepts, events, and systems in order to ensure comparability between the experimental and control groups before the intervention.

Table 1 : Mean pre-test scores for key pre-Colombian America aspects as delivered by teachers in class

Lecture Aspect	Group	Number	Mean (SD)	Max Score	Percentage Score
Architecture	Experimental	30	3.21 (0.83)	10	32.1 %
	Control	35	3.18 (0.91)	10	32 %
Agriculture	Experimental	30	3.14 (0.77)	10	31.5 %
	Control	35	3.11 (0.83)	10	31.3 %
Political Systems	Experimental	30	3.49 (0.86)	10	35.1 %
	Control	35	3.47 (0.83)	10	35 %
Total	Experimental	30	9.87 (2.15)	10	32.9 %
	Control	35	9.86 (2.14)	10	32.7 %

Table 1 presents the pre-test results for both the experimental and control groups around three aspects of the lecture: architecture, agriculture, and political system. We can see there are very little differences between the experimental group and the control group in the mean scores. So, it could be inferred that both groups possessed a resembling baseline of understanding of pre-Colombian America, and the total scores, respectively the experimental group with (32.9%) and the control group with (32.7%).

III. 2. Post-test Scores

These post-test scores are intended to estimate the performance differences between the experimental group, which used AI visual aids, and the control group, which relied on traditional learning methods.

Table 2: Post-test scores by lecture aspect

Lecture Aspect	Group	Number	Mean (SD)	Max Score	Percentage Score
Architecture	Experimental	35	7.85 (1.02)	10	78.2 %
	Control	30	5.94 (1.15)	10	59.7 %
Agriculture	Experimental	35	8.02 (0.97)	10	80.1 %
	Control	30	6.08 (1.11)	10	60.5 %
Political Systems	Experimental	35	8.21 (0.88)	10	82.1 %
	Control	30	6.15 (1.09)	10	61.2 %
Total	Experimental	35	24.08 (2.21)	10	80 %
	Control	30	18.17 (2.55)	10	60 %

The results in Table 2 reveal that learning history is facilitated, particularly when students use AI visuals such as Canva and Descript. The mean scores were respectively: The experimental group (80%), and for the control group (60%). This indicates that the experimental group students were likely to understand the complex concepts and remember the dates and key figures of the lecture of pre-Colombian America compared to the control group students.

Table 3: Post-test scores by question type.

Question Type	Group	Number	Mean (SD)	Max Score	Percentage Score
Multiple-choice	Experimental	30	11.77 (1.04)	15	79.2 %
	Control	35	9.19 (1.16)	15	61 %
Short-answer	Experimental	30	12.27 (1.07)	15	81.6 %
	Control	35	9.10 (1.19)	15	60.1 %
Total Score	Experimental	30	24.09 (2.24)	30	81 %
	Control	35	19.01 (2.55)	30	60.1 %

Table 3 compares post-test scores by question type. The experimental group achieved higher scores in both the multiple-choice and short-answer sections (79.2% and 81.6%, respectively), with slightly greater improvements observed in the short-answer items. This pattern suggests that AI-based visual aids were particularly effective in supporting deeper processing of lecture content by transforming spoken information into visual timelines and written transcriptions. Such transformations appear to have enhanced students' ability to organise, interpret, and articulate historical knowledge.

In contrast, the control group obtained lower scores in both the multiple-choice and short-answer sections (61% and 60.1%, respectively), which suggests that reliance on traditional note-taking and textbook images alone may have limited students' capacity to retain, structure, and critically express information presented in complex historical lectures.

IV- Discussion

Regarding Research Question 1, the findings indicate that Descript played a significant role in supporting students' listening comprehension and retention of lecture content. This improvement can be explained by the multimodal nature of the tool, which simultaneously engages auditory and textual processing channels. By converting spoken lectures into written transcripts, Descript reduced the cognitive load associated with real-time note-taking, allowing students to focus more attentively on meaning rather than on transcription. The possibility of replaying unclear segments and reviewing transcripts enabled learners to regulate their pace of comprehension and revisit complex information, which is particularly important when dealing with dense historical discourse.

Furthermore, the availability of written transcripts reinforced memory consolidation by providing repeated exposure to key facts, dates, and historical figures. This dual exposure—listening to the lecture while later reading the transcript—likely strengthened encoding processes and facilitated deeper cognitive processing. As reflected in the higher mean scores of the experimental group, students who relied on Descript were better able to recall factual information and organise historical knowledge, whereas students in the control group depended solely on linear note-taking, which may have limited their capacity to capture and revisit essential details accurately.

In answer to Q.2, we found that Canva is a good learning tool, which not only designs presentations but also improves students' visual understanding of the lecture of pre-Colombian civilisations. It enabled students to create visuals and timelines for diverse historical perspectives. It also made it easier for them to build a visual memory of how these cultures intersected, differed, and what characterized each one (Winfield, 2012).

It can, thus, be inferred that Canva acts as more than a supplementary tool which facilitates critical engagement with complex historical concepts, resulting in notable cognitive benefits.

Q.3 explores the differences between using AI visual aids and traditional learning methods. The results allowed to notice that students who used AI-generated visual tools were likely to engage in a far more interactive learning process. As tables (2) and (3) demonstrate, the integration of transcripts and timelines into the American lecture enabled the experimental group to map cultural and political hierarchies of the studied civilisations (Samantray et al., 2024, p. 15). This leads to the conclusion that AI visual aids can foster a more interactive and self-directed mode of learning.

In response to Research Question 4, the majority of students in the experimental group agreed that AI-based visual tools facilitated their comprehension of socially constructed historical lectures. Qualitative responses indicated that visual representations supported clearer interpretation of historical relationships and encouraged students to articulate their viewpoints more confidently based on visual evidence. These perceptions align with the improved post-test performance observed in the experimental group.

However, the findings also reveal that a minority of participants (approximately 14%) expressed concerns about potential over-reliance on AI tools. These students reported apprehension that excessive dependence on visual and automated support might reduce opportunities for independent analysis and critical reflection. This result suggests that, while AI-assisted learning is largely perceived as beneficial, it should be integrated in a balanced manner that continues to promote autonomous thinking and analytical skills alongside technological support.

In response to Research Question 5, the findings indicate that AI-based tools played a significant role in enhancing students' critical thinking skills and promoting greater classroom engagement. As shown in Tables 2 and 3, the experimental group achieved substantially higher mean scores than the control group, with an overall post-test

performance of approximately 80–81%, compared to about 60% for the control group. These results suggest that students who engaged with AI-supported visual and transcription tools were better equipped to analyse, synthesise, and articulate historical information.

In addition to improved test performance, classroom observations and qualitative responses revealed that students in the experimental group participated more actively during discussions and responded more confidently to questions addressing diverse historical events and perspectives. The use of visual timelines and transcriptions appeared to encourage students to question historical assumptions, compare interpretations, and justify their viewpoints, thereby fostering higher-order thinking skills. These findings support Wu's (2024) argument that AI-enhanced pedagogical approaches can shift learning from surface-level knowledge acquisition toward critical inquiry and analytical engagement.

In connection with the analysis of the results, we recommend that universities in Algeria develop artificial intelligence AI-assisted laboratories to support academic research and education. In addition, AI-based visual materials, like Canva and Descript, must be incorporated into classrooms so that students can visualize historic ideas instead of relying on traditional modes of learning. Experts should hold online sessions at no cost to teach AI and integrate such approaches into history research.

Overall, learning history through virtual reality (VR) or animated videos could help students develop stronger visual memory for historical facts. Furthermore, it is important to note that both teachers and educators are advised to organise seminars or conferences to bring to the fore the ethical and unethical uses of AI even though it remains difficult, if not impossible to leverage this advanced technology to produce clever history researchers.

V- Conclusion

This paper inspected the impact of AI visual aids, Canva and Descript, on enhancing students' listening and visual understanding of a lecture on pre-Colombian America. In spite of the fact that many educators still use traditional methods for delivering a history class, using Descript for audio transcription and audio playback and Canva for visual presentation seems to help improve students' overall performance. Interestingly, AI visual aids are valuable for both teaching and learning tasks, based on the premise that they improve listening accuracy, visual understanding, and retention of historical facts. The results suggest the need to integrate AI visual aids into history classes, as they enhance students' ability to critique facts and question assumptions -with highly considering the ethical dimensions of using such materials..

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Appendices

Pre-test and Post-test Questions

Pre-test – Baseline Knowledge

Purpose: To assess students' general knowledge of Maya, Aztec, and Inca civilisations before instruction.
Multiple Choice (1 point each)

1. The Inca Empire was located mainly in

- A) Central Mexico
- B) Andean highlands.
- C) Yucatán Peninsula.
- D) Amazon Basin.

2. Which crop was most important to Mesoamerican civilisations?

- A) Wheat.
- B) Maize.
- C) Rice.
- D) Barley.

3. The Maya are best known for their

- A) Hieroglyphic writing.
- B) Quipu system.
- C) Roman roads.
- D) Iron weapons.

4. Terrace farming is most associated with:

- A) Maya.
- B) Inca.
- C) Aztec.
- D) Olmec

5. The Aztec capital was

- A) Cuzco.
- B) Tenochtitlán.
- C) Machu Picchu.
- D) Tikal.

Short Answer (0–3 points each)

1. Name one difference between the Maya and the Inca.
2. Give one example of a crop grown by these civilisations.
3. Why are timelines important in studying history?

Total score: /25

Post-test – Specific Comprehension

Purpose: To measure listening accuracy and visual comprehension after the intervention. Multiple Choice (1 point each)

1. Which structure was a key feature of Maya architecture?

- A) Stepped pyramids.
- B) Gothic cathedrals.
- C) Amphitheatres.
- D) Mudbrick ziggurats.

2. The Aztec political system was:

- A) A confederation of city-states led by a ruler
- B) A democracy.
- C) A chiefdom.
- D) Nomadic tribes.

3. Which civilisation used quipu for record keeping?

- A) Aztec.
- B) Maya.
- C) Inca.
- D) Olmec.

4. Which method helped the Inca farm steep slopes?

- A) Slash-and-burn
- B) Terracing.
- C) Crop rotation.
- D) Irrigation only.

5. Tenochtitlán was built on

- A) An island in a lake.
- B) A mountain ridge.
- C) A coastal plain.
- D) A desert plateau.

Short Answer (0–3 points each)

- 6. From the lecture, recall two facts about Aztec agriculture.
- 7. Look at the provided infographic identify one cultural symbol and explain its meaning.
- 8. Explain one-way audio transcripts or visual aids (if used) helped you understand the lecture.

Total score: /25