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Enhancing Consecutive Interpretation Skills: A Technological Approach for Saudi Graduate Students of Translation Using Sanako Multimedia Labs

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Abstract
The use of multimedia language labs in Saudi Arabian translation pedagogy for the purpose of consecutive interpreting is very low, owing to which graduate students aspiring to pursue career in consecutive interpretation fail to achieve proficiency levels. This study explores the underutilization of Sanako Multimedia Language Labs (MLLs) in consecutive interpreting (CI) training for BA translation students in Saudi Arabia, aiming to bridge the gap between the technology's potential and its actual implementation. Employing a mixed-methods approach, the research examines student and teacher perceptions of MLLs through surveys and interviews, their usage patterns, and the challenges and benefits associated with their integration into CI instruction. The study involved 59 BA female translation students enrolled in Arabic-English language pair courses and three CI female instructors from a Saudi Arabian university. Findings reveal a generally positive perception of MLLs, highlighting their effectiveness in enhancing student engagement, feedback mechanisms, and overall learning. However, technical challenges and equipment malfunctions hinder their optimal use. The study proposes recommendations to optimize MLL integration, including comprehensive teacher training, technical support, curriculum integration, and active learning strategies, to foster innovation in CI training methodologies and equip future interpreters with essential skills. This research contributes to a more effective and future-oriented approach to interpreter education in Saudi Arabia through highlighting the specific challenges and opportunities presented by MLLs in the local context.

Keywords: Consecutive Interpretation, Interpretation Pedagogy, Sanako Multimedia Language Labs, Technology Integration, Saudi Arabia.

Introduction

The integration of technology into educational practices has revolutionized language learning, particularly in skill-intensive areas like translation and interpretation (Gunuç & Babacan; Lee, 2023; Rintaningrum, 2023), as evident from several Multimedia Language Labs (MLLs) existing. However, despite their potential, the adoption of MLLs in Saudi Arabian translation pedagogy remains notably low, with only 20% of consecutive interpreting (CI) instructors utilizing them (Al-Jarf, 2021). A similar argument was raised in another study where underutilization of the expertise of instructors was the main concern, along with lack of effective teaching methods (Aldossary, 2023). The study also highlighted the need to improve students' proficiency levels, especially for

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graduate students preparing for a career in consecutive interpretation. This study premises that in such contexts, Sanako MLLs are seen as promising tools to enhance consecutive interpreting (CI) training.

Sanako Multimedia Labs, a Finland company, reputed for devising EdTech tools for professional language educators, has offered a persuasive solution for language learning. It focuses on the development of interpretation skills, while it offers advanced technological solutions for the enhancement of language learning and interpretation skills. The urge was to provide an interactive environment for students to engage in various activities and simulate real-life interpreting scenarios. Moreover, Sanako Multimedia Labs is much familiar with the Finnish educational practices, its technological landscape and modern software development techniques. With its presence in over 110 countries and installations in 50,000 classrooms, Sanako's solutions are utilized worldwide to enhance student language acquisition. Its lab functionalities include recording, playback, and interactive exercises (Carvalho, 2023; Hansen & Shlesinger, 2007). Students get full opportunity to practice interpretation skills through interactive spoken exercises, performance analysis through playback of recordings, and enhance their listening comprehension and speaking fluency (Bodnar & Yatsenko, 2017; Hansen & Shlesinger, 2007).

To keep pace with technology, Sanako has also developed a new cloud-based language teaching hub called Sanako Connect. This advanced technological hub meets the need of all language teaching formats, including live lesson delivery, asynchronous classes, customized according to different teaching methods. Sanako Connect enables teachers to guide students' language learning in a teacher-controlled environment, allowing teachers to monitor student progress and provide real-time feedback. The in-built content authoring tools in Sanako Connect allows teachers to easily create any kind of exercise teachers need for their lessons. They can freely mix and match stimulus materials (audio, video, text, presentations, 3rd party websites and content) with different task-types to give students ample opportunity to practice all core language skills (Sanako Blog, 2024). Hence, we can summarize the Sanako benefits (as displayed in their website) as follows:

- **Immersive Learning**: Sanako labs create a realistic experience that helps students immerse themselves fully in the interpretation process.
- **Feedback and Assessment**: The technology provides immediate feedback on performance, allowing for rapid improvement.
- **Flexibility**: Students can practice at their own pace, focusing on specific areas of difficulty.
- **Collaborative Learning**: Sanako encourages collaboration among students, which is essential for developing team interpretation skills.

Sanako labs have installations in Saudi Arabia to impart consecutive interpreter training for its BA programs. Consecutive interpretation in a nation like Saudi Arabia where L1 is dominant than any other language, a high level of cognitive and linguistic abilities are required (Al-Harahsheh, Shehab, & Al-Rousan, 2020; Xu, 2023). In a L1 dominated language classroom, the interpreter must listen to a speech in one language, processes its and understands its content, and then reproduces it in another language. Hence, to meet the local demands of Saudi Arabia, Sanako evolved a four-point program involving curriculum integration, technical training, regular practice, and monitoring progress. The curriculum integration means to align language learning with course objectives and learning outcomes, designing exercises to complement with classroom instruction, and MLL sessions reinforcing the concepts taught in classrooms. Technical training aimed at providing training to both instructors and learners for language proficiency and self-assessment. Each training sessions equipped learners and teachers with the necessary skills to practice MLL software. Regular practice was emphasized to foster skill development in interpretation by integrating theory and practice as a part of regular curriculum. It gave students frequent opportunities to practice with the technology and refine their interpretation techniques. Finally, Sanako ensured regular monitoring of students' progress through regular feedback and guidance. Instructors were asked to analyze recordings and assess students' listening comprehension, accuracy, fluency, and other critical skills.

Problem Statement

The integration of technology with a nation's educational curriculum is a big challenge, especially in areas requiring skill development such as translation and interpretation (Lee, 2023). With the dawn of advanced learning tools such as MLLs, students of CI can engage with content in innovative ways that promise to transform their learning experiences (Ürün, 2016). Empirically, many studies have focused on technology integration in language learning (Chen & Chih-Cheng, 2018; Lee, 2023) and CI training (Al-Harahsheh et al., 2020; Xu, 2023) to contextualize the findings within the Saudi Arabian educational landscape. A few other studies primarily focused on the general use of technology in language learning (Buledi & Badariah, 2024; Ras, 1979; Sharadgah & Sa'di, 2022), with limited emphasis on its specific application in CI training.

In Saudi Arabia's translation pedagogy for BA students, a concerning gap exists between the potential of advanced Sanako MLLs to enhance CI skills and their actual underutilization in instruction. A major concern

faced by educationists and policymakers is that, despite the accessibility of technology in all curricular activities, a large number of CI instructors fail to adopt MLLs (Al-Jarf, 2021). This problem does not only hint at the lack of effective teaching methods but also missed opportunities for students to enhance their proficiency levels. Such a low adoption of MLLs in the Saudi translation and interpretation pedagogy, the BA students, particularly who aspire to be interpretation professional, fail to receive full benefits of MLLs in enhancing their CI skills. Hence, there exists a gap between what technological potential of MLLs is accessible and the actual instructional strategies employed (Delgado et al., 2015). There is a dire need to investigate how to improve interpreter training in Saudi Arabia. Therefore, this study aimed to address this research gap by identifying what factors can influence the limited adoption of MLLs in CI training for BA translation students in Saudi Arabia

This problem statement urges to recognize and overcome these obstacles for maximizing the efficacy of interpretation instruction, enhancing the skillset of future interpreters, and ensuring that KSA BA students of interpretation are equipped with the competencies required to excel in their forthcoming professional endeavors. To achieve this purpose, the following research objectives were stated: (i) to investigate the effectiveness of Sanako Multimedia Labs in improving translation training for BA level translation students in the Kingdom of Saudi Arabia (KSA); (ii) to understand the current utilization of Sanako Multimedia Labs in teaching consecutive interpretation for BA translation students and interpretation teachers; (iii) to identify perceived challenges and factors influencing the use of Sanako Multimedia Labs in consecutive interpretation instruction; (iv) to assess the attitudes, perceptions, and experiences of BA translation students towards Sanako Multimedia Labs; (v) to propose recommendations for the normalization and attitude change towards integrating new technology in consecutive interpretation training.

To achieve these objectives, the following relevant questions were framed:

1. How does the integration of Sanako Multimedia Labs impact CI training for BA level translation students in KSA?
2. How are Sanako Multimedia Labs currently utilized in teaching CI for BA translation students and interpretation teachers?
3. What are the perceived challenges and factors influencing the use of Sanako Multimedia Labs in CI instruction?
4. What are the attitudes, perceptions, and experiences of BA translation students towards Sanako Multimedia Labs?
5. What recommendations can be proposed for normalizing and fostering a positive attitude towards integrating new technology in CI training?

It is hypothesized that the active integration of Sanako Multimedia Labs into the consecutive interpretation courses for BA students of translation in Saudi Arabia will significantly enhance their learning outcomes (Nagy, Pucsok, & Balogh, 2024; Singh, Singh, & Chhikara, 2024; Yalgashev, 2024), student engagement (Goi, 2024; Golo, McApreko, & Quarshie, 2023; Singh et al., 2024; Yalgashev, 2024), and overall proficiency (Gong et al., 2023; Yalgashev, 2024), which are fundamental components of an effective educational program. However, to strengthen this hypothesis, it might also be beneficial to specify potential factors or conditions under which the integration of Sanako MLLs would be most effective. These could include, for instance, specific training for instructors on how to best utilize MLLs, adjustments to curriculum design to accommodate technology-enhanced learning, or the provision of adequate technical support and resources.

The rationale for this study stems from several factors. Firstly, the increasing reliance on technology in educational settings underscores the need for effective digital tools in interpreter education. Secondly, traditional CI teaching methods often fall short in providing the interactive and immersive experience that MLLs can offer. Third, as discussed above, there is a need to bridge the gap between the use of MLLs and imparting effective CI training, particularly in the context of Saudi Arabia.

Literature Review

Past studies have examined in detail the methods to enhance CI skills through the use of technology, including the potential use of multimedia labs such as Sanako in university curricula (Akula & Singh, 2023; Idri, 2013; Kaur & Singh, 2022; Suendarti, 2022). Wang & Na (2023), in a recent study, argued the utilization of MLLs to teach CI, and use multimedia technology as a potential tool for interactive translation learning. This study demonstrated technology's potential to replace traditional teaching processes with modern approaches like Multimedia Network Interpretation Teaching using Machine Learning (MNIT-ML). Likewise, Wu (2021) examined the significance of Computer-Aided Translation Technology in Applied English Teaching (Multimedia Interaction-Based) and strongly endorsed the use of multimedia-based tools in translating massive multimedia applications. This study emphasizes the importance of guiding students in using such technology to enhance language translation capabilities, suggesting potential benefits for CI training. Studies like Juanas & Jiménez (2022), Brock & Choi (2021) and Xu (2023) have also considered CI as a complex cognitive task which requires intensive training, and strongly support the use of technology to be used for interpreter training through pedagogical innovations. Sanako multimedia labs provided one such innovation, as it promised to revolutionize the teaching methods and pedagogy of interpretation skills in university BA courses.

Al-Jarf (2008) expressed concern over constant hurdles caused by insufficient instructor qualifications and technological skills. The study felt the need to improve staffing skills in translation and interpretation in Saudi Arabia, which is possible only through enhancing instructor qualifications, revising their teaching load and course curriculum, and providing exposure to technology including MLLs, which is possible only by integrating new technological tools into educational practices.Duracinsky et al. (2022), Demchenko (2019) and Korol & Pityk (2021) offered a solution by suggesting innovative frameworks for designing teaching modules within MLL environment, which could focus on exercises on improving consecutive interpretation skills. These studies underscore the importance of practical exercises and authentic materials, aligning with concerns raised by Al-Jarf (2021) regarding the perceived unsuitability of MLLs for teaching consecutive and liaison interpreting.

Talking of enhancing the infrastructure and technical support for MLLs, Idri (2013) focused on utilizing multimedia labs to enhance EFL students' translation and interpretation skills. The study posited that adequate technical infrastructure and support can make it easier to bring effectiveness of MLLs in interpreter training. Likewise, Lee (2019) addressed the issue of interpreter's performance is assessment and intricacies in their performance evaluation. The study exposed the need to apply certain criteria to make a holistic assessment of instructors' interpreter skills as this could make a retrospective impact on the MLL utilization in consecutive interpretation. In a later study, Lee (2020) emphasized upon methodological approaches to introduce action research in the CI pedagogy, and design effective courses to bridge the gap between classroom learning and real-world interpreting situations.

In a nutshell, a growing interest in the integration of multimedia technology in interpreter training is noticeable, though insufficient. Although insights gained from related studies contribute to understanding of factors influencing MLL utilization in teaching consecutive interpretation, offering informed recommendations and strategies to enhance the effective integration of technology in language education.

Methodology

Research Design

A mixed-methods approach was adopted to gain a comprehensive understanding of MLL utilization and its impact on CI training. This approach ensures a comprehensive understanding of both the statistical significance and the contextual factors influencing the use of Sanako labs in interpreting instruction.

Sampling

This study employed a convenience sample of 59 BA female translation students from a university in Saudi Arabia. All participants were enrolled in Arabic-English language pair courses. Due to the specific cultural context and potential logistical constraints within KSA universities, the research involved a single-gender sample. This limitation is acknowledged and addressed further in the study's limitations section.

Research Instruments and Data Collection

Quantitative data was collected through SLaLCIQ, a self-administered questionnaire designed to gather insights from BA students of translation in Saudi Arabia on their experiences and perceptions regarding the use of Sanako Multimedia Labs in CI training. The questionnaire also aimed to assess students' familiarity with MLLs, usage patterns, and perceptions of their effectiveness in CI practice, as well as understand the impact of MLLs on student learning and skill development. The SLaLCIQ questionnaire was divided into three sections. Section One assessed students' familiarity and comfort level with Sanako MLLs using a 6-point Likert scale and a "no idea" option. It also gauged their overall perception of MLLs as a CI learning tool. Sections Two and Three explored the perceived impact of MLLs on student skills. Section Two focused on CI skills like accuracy and engagement, while Section Three explored broader language proficiency, including vocabulary, listening comprehension, and speaking. Both sections utilized the same Likert scale and "no idea" option. The SLaLCIQ was designed to take approximately 10 minutes and emphasizing anonymity and confidentiality.

Qualitative data was gathered through semi-structured interviews with three CI female instructors to gain in-depth insights about the impact of Sanako MLLs on CI training in Saudi Arabia. These interviews explored various aspects of MLL integration and female instructors' experiences of integrating MLLs into teaching practices, perceived benefits, and encountered challenges, as well as perspectives, and utilization of Sanako MLLs in the context of teaching CI at the BA level. These interviews also assessed instructors' experience and confidence with MLLs (familiarity and comfort level), how they understand the challenges encountered and factors influencing their use in CI classes, and gain insights into how instructors incorporate MLL functionalities into their teaching. The interviews further aimed to identify instructors' satisfaction with MLLs and their perceived impact on student learning. Technical challenges and mitigation strategies were also explored, alongside instructors' views on MLLs as a tool for motivating and engaging students. Finally, the interviews aimed to gain insights into how instructors believe MLLs contribute to student learning outcomes and overall CI proficiency.

Additionally, the interview objectives explored the frequency of MLL utilization and the reasons behind it, along with instructors' perspectives on MLLs as innovative tools for enhancing CI training.

Results

The quantitative data was analyzed using descriptive statistics and identifying trends and patterns in student responses. The qualitative data from teacher interviews was transcribed and thematically analyzed to identify recurring themes. Combining these data sets, the study aimed to provide a holistic picture of MLL utilization and its impact on CI training in the Saudi Arabian context both from students' and teachers' standpoints.

Quantitative Results

At the *quantitative* level, descriptive statistics- mean, median, and standard deviation for each question item, and inferential analysis were employed to interpret survey results, providing information about students' perceptions of Sanako Multimedia Labs. The students' perceptions of Sanako MLLs were measured on a 6-point Likert scale (1 = strongly disagree, 6 = strongly agree), for responses to each survey item. Table1 summarizes these statistical results.

Table 1: *Mean, Median, and Standard Deviation for the Perceptions and Experiences with Sanako Multimedia Labs.*

Question Item	Mean	Median	Standard Deviation
Familiarity with Sanako Multimedia Labs	3.37	3	1.43
Comfort level when using Sanako Multimedia Labs	3.61	4	1.16
Ease of use of Sanako Multimedia Labs for interpretation classes	3.49	4	1.14
Familiarity with the features of Sanako Multimedia Labs	3.22	3	1.38
Familiarity with the functionalities of Sanako Multimedia Labs	3.15	3	1.45
Frequency of use of Sanako Multimedia Labs (every day)	3.27	3	1.18
Frequency of use of Sanako Multimedia Labs (weekly)	4.05	4	0.92
Innovative aspects of using Sanako Multimedia Labs	3.66	4	1.12
Enjoyment when learning Consecutive Interpretation using Sanako Multimedia Labs	3.66	4	1.15
Perception of complexity when using Sanako Multimedia Labs	3.51	4	1.14
Impact of technical issues on the use of Sanako Labs	2.93	3	1.26
Impact of technical issues on the effective use of Sanako Labs in teaching	3.15	3	1.21
Perception of Sanako Labs as a motivating tool for learning consecutive interpretation	3.83	4	1.06
Belief that Sanako Multimedia Labs should be an integral part of consecutive interpretation courses	3.69	4	1.08
Overall attitude towards using Sanako Labs in consecutive interpretation training	3.61	4	1.08
Integration of Sanako Labs into study routine for consecutive interpretation	3.54	4	1.09
Adaptability of Sanako Labs to individual learning pace	3.61	4	1.07
Adaptability of Sanako Labs to individual learning style	3.54	4	1.06
Contribution of Sanako Labs to understanding of cultural nuances and enhancement of cultural competence	3.63	4	1.05
Boost in confidence in using the target language in various real-life scenarios due to regular use of Sanako Labs	3.85	4	1.03
Effectiveness of Sanako Labs in managing study time	3.58	4	1.10
Impact of collaborative activities on Sanako Labs on language skills	3.68	4	1.08

Analysis of the SLaLCIQ data reveals that while students have a moderate level of familiarity and comfort with Sanako Labs (mean scores 3.22-3.61), lower scores for features and functionalities (3.22, 3.15) suggest a need for additional training to reveal their full potential. This finding aligns with our hypothesis that students may have a gap between their initial comfort level with the technology and their ability to fully utilize its advanced functionalities for CI training (hypothesis testing - RQ1).

It was also observed that utilization patterns were varied, with some students using the labs daily/weekly (mean score for weekly use: 4.05) while others report lower frequencies or no use. This highlights a potential gap between technology availability and its integration into teaching practices (RQ1). Technical challenges (mean score 2.93) may also be hindering effectiveness (partially supports hypothesis on factors affecting utilization). Despite these concerns, students expressed positive overall attitudes towards Sanako Labs (mean scores for motivational aspects: 3.83, 3.69) and its impact on confidence (mean score 3.85). This suggests that students perceive Sanako Labs as valuable tools for improving their CI skills, even if they are not using all the features effectively (partially supports hypothesis on student attitudes). To optimize utilization, targeted interventions like workshops and technical support, along with curriculum adjustments that leverage the labs' strengths, are recommended. Results show that there is a need of addressing these factors, hence institutions can foster a positive attitude towards technology integration and ultimately improve student learning outcomes in CI.

Table 2 examines students' perceptions revealing a generally positive view of Sanako Labs' impact on consecutive interpretation skills (mean scores 3.51-4.08). Students agree that the labs improve skills (mean scores 3.63-3.81), enhance confidence (mean score 3.81), and increase engagement (mean score 3.98). Median scores and some standard deviation suggest some variation in experiences (partially supports hypothesis on factors affecting utilization), with areas like interactive features and personalized learning receiving higher marks (mean scores 3.85-3.98).

Table 2: *Mean, Median, and Standard Deviation for the Impact of Sanako Labs on Consecutive Interpretation Skill.*

Item	Mean	Median	Standard Deviation
I use Sanako Multimedia Labs during consecutive interpretation training.	4.08	4	1.10
Sanako Multimedia Labs have improved my consecutive interpretation skills.	3.63	4	1.52
Regular use of Sanako Labs has improved my accuracy in interpreting consecutive messages.	3.51	4	1.35
Sanako Labs have significantly enhanced my ability to consecutively interpret.	3.63	4	1.42
I feel more confident in my consecutive interpretation skills after incorporating Sanako Labs.	3.81	4	1.28
The interactive features of Sanako Labs have increased my engagement in consecutive interpretation.	3.98	4	1.15
The varied exercises on Sanako Labs have diversified and improved my consecutive interpretation skills.	3.75	4	1.19
Sanako Labs seamlessly integrate into my consecutive interpretation learning process.	3.94	4	1.10
Sanako Labs effectively assist me in monitoring my progress in consecutive interpretation training.	3.75	4	1.22
I appreciate the detailed performance analytics provided by Sanako Labs for consecutive interpretation exercises.	3.88	4	1.11
Sanako Labs allow for personalized learning experiences in consecutive interpretation.	3.85	4	1.17
The customizable settings on Sanako Labs enhance my consecutive interpretation learning according to my preferences.	3.69	4	1.27

While the overall perception was positive, aspects like improvement in accuracy and performance analytics could be optimized based on slightly lower mean scores. These findings suggest Sanako Labs are valuable for enhancing consecutive interpretation skills, but further refinement could maximize their benefits.

Table 3 shows that students perceive Sanako Labs positively for enhancing language proficiency (mean scores 3.64-3.92). This suggests that students are likely utilizing features that target these skills (partially supports hypothesis on factors affecting utilization, RQ1). They agree that the labs improve vocabulary (mean score 3.85), listening comprehension (mean score 3.88), reading comprehension (mean score 3.79), writing (mean score 3.74), and speaking (mean score 3.71).

Table 3: *Mean, Median, and Standard Deviation for the Sanako Language Lab: Language Proficiency and Communicative Skills.*

Item	Mean	Median	Standard Deviation
Sanako Labs have contributed to the development of my overall proficiency in consecutive interpretation.	3.71	4	1.41
Regular use of Sanako Labs has improved my ability to comprehend and use specialized terminology in my language studies.	3.92	4	1.31
Sanako Labs have effectively contributed to the expansion of my vocabulary in the target language.	3.85	4	1.27
Sanako Labs have enhanced my listening comprehension skills in the target language.	3.88	4	1.22
The diverse listening exercises on Sanako Labs have improved my ability to understand different accents and speech patterns.	3.88	4	1.22
Sanako Labs have been effective in enhancing my reading comprehension abilities in the target language.	3.79	4	1.34
The variety of reading materials available on Sanako Labs has exposed me to diverse linguistic styles and genres.	3.64	4	1.42
Regular writing exercises on Sanako Labs have contributed to the development of my written communication skills in the target language.	3.74	4	1.35
The feedback and corrections provided by Sanako Labs have improved the accuracy and clarity of my written expressions.	3.85	4	1.26
The real-time feedback provided by Sanako Labs has helped me identify and rectify mistakes in my interpretation.	3.79	4	1.29
Sanako Labs have played a significant role in the improvement of my speaking proficiency in the target language.	3.71	4	1.38
The interactive speaking exercises on Sanako Labs have helped me practice and refine my pronunciation.	3.72	4	1.32
The interactive features of Sanako Labs have improved my ability to engage in meaningful and contextually relevant conversations in the target language.	3.78	4	1.26
Collaborative activities on Sanako Labs have positively impacted my language skills through group discussions and joint projects.	3.72	4	1.34
Sanako Labs have played a role in aiding the retention of language skills over time.	3.88	4	1.18
The diverse range of tasks provided by Sanako Labs has positively impacted my language skills development.	3.79	4	1.26

Consistent medians and low standard deviations show general agreement on these benefits, indicating that the labs are effective for most students who use them (partially supports hypothesis on factors affecting utilization, RQ1). In addition, areas like specialized terminology comprehension and listening comprehension received higher marks (mean scores 3.88-3.92). While overall positive, aspects like conversation engagement (mean score 3.78) could be optimized based on slightly lower means. This could be due to a gap between the features offered and student expectations, or potentially a lack of familiarity with how to leverage those features effectively (partially supports hypothesis on factors affecting utilization, RQ1). These findings suggest Sanako Labs are of value for language skill development, but further investigation into student utilization patterns and targeted interventions could maximize their impact.

Qualitative Results

On *qualitative* terms, thematic analysis was conducted on interview transcripts to identify patterns, challenges, and factors affecting the use of MLLs in CI instruction. That is why, interviews were conducted with the three instructors working in the academic institution under study. Its items were carefully chosen thematically and in relation to the research objectives. Table 4 summarizes the key findings from the interview transcripts.

Table 4: *Key Findings About Significant Aspects.*

Aspect	Key Findings
Familiarity & Experience	- Interviewee 1: New to using Sanako Labs for CI (learning curve). - Interviewee 2: Proactive in seeking training, uses Sanako for 2 semesters. - Interviewee 3: Initial challenges overcome with improved technical support.
Influence on Teaching	- All teachers agree comfort with Sanako Labs enhances teaching (feedback & engagement).
Suitable Aspects & Challenges	- All teachers find Sanako Labs suitable but highlight equipment malfunctions and technical support issues.
Integration Methods	- All teachers use Sanako Labs for listening tasks, recording interpretations, and peer evaluations.
Frequency of Integration	- All teachers integrate Sanako Labs in all practical classes for familiarity and exam preparation.
Innovation Perception	- All teachers view Sanako Labs as enhancing teaching but not inherently innovative (focus on practical utility).
Impact on Learning	- Despite challenges, Sanako Labs improved teaching, accelerated student progress, and facilitated active learning.
Technical Issues & Strategies	- All teachers experience technical challenges. They use strategies like contacting support and backups to mitigate them.
Motivation & Engagement	- Sanako Labs motivate students by making participation and feedback easier, leading to more active engagement.
Contribution to Proficiency	- Sanako Labs play a vital role by facilitating active learning and allowing students to judge their interpretations during class.

The interviews with instructors using Sanako MLLs for CI training revealed a range of experience with the technology (addresses RQ2 on instructor perspectives). While Interviewee 1, with prior experience with Sanako for simultaneous interpretation (SI), was new to CI, Interviewee 2 proactively sought training and had used Sanako for CI for two semesters. Interviewee 3 initially faced challenges due to technical issues but reported significant improvement with enhanced technical support (Interview with Lecturer of Specialized Translation on March 03, 2024).

These experiences highlight the potential learning curve for instructors transitioning between applications and the importance of ongoing technical assistance for smooth integration (addresses RQ2 on instructor perspectives). However, despite the initial challenges, all instructors exhibited a positive attitude towards Sanako and did not express resistance to change. This is further supported by a quote from Interviewee 1: *"Despite being new to using Sanako for CI, my comfort with the technology from SI applications has facilitated providing feedback to students and improved their engagement in class*" (emphasizes positive adaptation despite prior experience with a different application).

Despite the range of experience, all instructors agreed that familiarity with Sanako Labs enhanced their teaching. Interviewee 2, for example, stated: "*It makes the teaching process easier as all students are engaged while listening to interpretations and giving feedback."* (Interview with Lecturer on March 14, 2024). This sentiment was echoed by Interviewee 3 who explained: "*It has a great influence because it makes the teaching experience easier, especially when giving students feedback and comments during lectures because they can listen to their interpretations and learn from the comments they are given."* (Interview with Lecturer of Specialized Translation on March 03, 2024). This analysis of the interviewees' responses explores how instructors utilize Sanako MLLs to facilitate feedback and student engagement in CI training (addresses RQ2 on instructor perspectives). The findings suggest a shift towards technology-mediated learning that prioritizes active participation and targeted feedback. The instructors' responses can be summed up to understand the effectiveness and benefits of the Sanako's MLL in following ways:

Focus on Feedback. Sanako's functionalities, such as recording and playback, enable instructors to provide more effective feedback. This can be contrasted with traditional methods that limited the ability to revisit student interpretations for detailed analysis. As instructor 1 highlighted, "*While coming from a background in Simultaneous Interpretation (SI), using Sanako in my CI classes felt familiar. This comfort level allowed me to focus on more effective feedback and fostering student engagement through activities like recordings and peer evaluation. Sanako Labs seem like a practical tool, but their impact on student participation and learning has been significant."* (Interview with Lecturer of Specialized Translation) This quote emphasizes how Sanako's features streamline the feedback process. Instructors can control recording and playback to provide detailed comments based on individual student interpretations, fostering a more focused learning experience.

Active Learning Environment. The consistent integration of Sanako across practical classes suggests a broader pedagogical shift. Features like student recording and peer evaluation encourage active participation beyond simply listening to lectures. This aligns with active learning theories where students are not passive recipients

of information but actively involved in the learning process. Instructors themselves recognize this benefit. Instructor 2 stated, *"It makes the teaching process easier as all students are engaged while listening to interpretations and giving feedback."* (Interview with Lecturer on March 14, 2024) This quote emphasizes how Sanako fosters an active learning environment where students are engaged in listening, interpreting, and providing feedback.

Innovation vs. Practical Utility. Interestingly, despite acknowledging the positive impact on learning, teachers do not necessarily perceive Sanako as inherently innovative. Interviewee 2 states: "*I wouldn't exactly describe it as an innovative tool; I see it as a basic interpreter training requirement. I don't have any innovative practices or strategies, I use it to play clips, record interpretations, and then play them for feedback."* (Interview with Lecturer on March 14, 2024). While Sanako might not represent a radical departure from existing practices, its functionalities demonstrably improve core aspects of CI training.

Overall Positive Impact with Room for Improvement The teacher interviews paint a positive picture of Sanako MLLs in CI training, highlighting benefits for both instructors and students (addresses RQ2 on instructor perspectives). Instructors like Interviewee 1 noted the technology's value in *"improving communication and encouraging students to actively participate."* She emphasizes how Sanako facilitates a more engaging learning environment, potentially leading to improved student performance. However, some technical challenges remain unanswered despite several probes. For instance, Interviewee 2 acknowledged equipment malfunction but downplays their impact, stating: "*In general I am satisfied with Sanako, it does the job. You can refer back to #3 for equipment challenges [referring to malfunctioning booths]. I do not think that they impact student outcomes; when the class is full and not all booths are working, I can play the clips out loud and students can record on their phones. It's not ideal, but it's the only alternative."* (Interview with Lecturer on March 14, 2024). This view reflects a pragmatic approach to dealing with technical issues (addresses RQ2 on instructor perspectives). What is noticed from the interviewees' responses, instructors demonstrate their adaptability by utilizing alternative recording methods when technical issues arise, ensuring uninterrupted learning for their students. This remains one of the positive aspects of human manipulation through pedagogical decisions.

Benefits for Instructors and Students. Despite the technical hurdles, instructors consistently reported positive experiences (addresses RQ2 on instructor perspectives). As Interviewee 3 stated, "*It has a great influence because it makes the teaching experience easier, especially when giving students feedback and comments during lectures because they can listen to their interpretations and learn from the comments they are given."* (Interview with Lecturer of Specialized Translation on March 03, 2024). This teacher highlights how Sanako streamlines the feedback process, as it allows instructors to provide more targeted comments based on student recordings. This can lead to deeper student learning and improved performance.

Discussion

This research investigated the efficacy of Sanako MLLs in improving consecutive interpreting skills among BA students in Translation Studies in a Saudi Arabian academic program (addresses RQ1 and RQ2 on student and instructor perspectives). Through the examination of student feedback and usage data, the study aimed to assess the advantages and limitations of utilizing technology for consecutive interpreting training. The study reveals that students possess a moderate level of comfort when using Sanako Labs (mean scores ranging from 3.22 to 3.61). However, their familiarity with specific features and functionalities requires improvement, as evidenced by lower mean scores in this area compared to overall comfort levels. This highlights a potential gap between the technology's capabilities and the students' current skillset (addresses RQ1 on student utilization). Moreover, student utilization patterns of the labs vary significantly. Some students incorporate them frequently into their learning routines (mean score for weekly use: 4.05), while others use them infrequently or not at all. This discrepancy aligns with findings from Al-Jarf (2021) at the College of Languages and Translation (COLT) in Saudi Arabia, which identified a limited use of MLLs for interpreting courses (only 20% of instructors). Similar to our study, Al-Jarf's (2021) research attributed this to instructor resistance due to unfamiliarity with the technology. These findings suggest a need for interventions to bridge this gap and encourage both student and instructor adoption of MLLs for CI training.

Despite the identified challenges, the study also highlights positive aspects of Sanako Labs. Students generally exhibit a favorable attitude towards the labs, emphasizing their motivational aspects and the positive influence on their confidence in carrying out CI tasks (mean scores: 3.83, 3.69, and 3.85 respectively) (addresses RQ1 on student perceptions). Additionally, the technology's capacity to offer immediate feedback enables students to pinpoint and rectify weaknesses in their performance, fostering a more targeted approach to learning.

The analysis further explores the impact of Sanako Labs on students' language proficiency. The findings suggest beneficial effects on vocabulary acquisition, listening and reading comprehension, writing, and speaking skills. Notably, specialized terminology comprehension received high ratings, indicating the labs'

efficacy in enhancing the specific language skills crucial for consecutive interpretation. However, certain areas like conversation engagement scored slightly lower, indicating room for improvement in refining features that promote interactive practice (highlights an area for improvement in RQ1). This partially supports our hypothesis that a lack of familiarity with features might hinder student utilization of Sanako Labs for CI training (addresses the hypothesis).

In light of these findings, the study proposes various strategies to optimize the utilization of Sanako Labs. Targeted interventions such as workshops and technical support programs can address student needs and improve their familiarity with advanced functionalities specifically for CI training. This aligns with Al-Jarf's (2021) recommendation for instructor training on MLL functionalities for CI tasks (connects to potential solutions in RQ2). Curriculum adjustments can also capitalize on the strengths of the labs, as suggested by Al-Jarf (2021), to create more engaging learning experiences that promote CI skill development. This could involve incorporating interactive activities like student-designed scenarios, role-playing exercises, and group interpreting practice within the MLL environment (suggests solutions for improving utilization in RQ1). Additionally, exploring possibilities for refining features like performance analytics and conversation engagement can further enhance the technology's effectiveness in CI training (highlights areas for improvement in RQ1).

The research at hand highlights the importance of investigating student experiences with MLLs for CI practice, few studies treated this issue mainly in KSA (addresses RQ1 on student experiences). This could involve exploring their perceived benefits, challenges encountered, and suggestions for further improvement of the technology for CI training purposes. We strongly acclaim conducting follow-up studies to assess the effectiveness of MLLs in CI training after implementing the proposed recommendations for instructor training and activity design is crucial. This aligns with Al-Jarf's (2021) call for follow-up studies to evaluate the impact of interventions on MLL utilization in interpreting courses (connects to future research needs in RQ1 and RQ2). All in all, The findings revealed that Sanako multimedia labs significantly improved the CI skills of students. However, the study also identified several challenges, including instructor resistance and technical issues, consistent with Al-Jarf's (2021) findings on the feasibility of MLLs in interpreting instruction. Additionally, Wang, Lei, & Liu (2020) emphasized the complexity of interpreting tasks, which require more than just word-for-word translation, further validating the need for advanced technological tools in training.

Conclusion

This research concludes that better integration strategies for multimedia technologies in translation education requires a roadmap to enhance CI skills in a technologically advanced learning environment. The findings are foreseen to contribute to curriculum development and pedagogical practices, advancing translation studies and promoting the effective use of Sanako MLLs as a tool for promoting the next generation of skilled interpreters in the KSA. In addition, integrating Sanako MLLs, KSA graduate students of translation can refine their CI skills with a deeper understanding and improved proficiency, ultimately preparing them for success in their future careers. It was felt that past studies present a compelling case for the integration of Sanako multimedia labs into BA programs for translation students in KSA. The evidence suggests that such technological tools not only enhance CI skills but also contribute to a more engaging and effective learning environment. Wang et al. (2020) concluded from previous research that the transition to interpreting training seems to be a great success. Future research should continue to explore long-term outcomes and the potential for further technological enhancements in interpreter training.

This study also underscores the importance of continuous improvement and knowledge sharing. Mechanisms for collecting feedback from teachers and students will provide valuable insights for iterative improvements. Furthermore, fostering collaboration between academics, researchers, and industry experts can drive innovation in MLL technology and pedagogy, leading to the development of more effective solutions for CI training. Finally, adapting MLLs to the specific cultural context and educational practices of Saudi Arabia will enhance their relevance and impact. For this purpose, it is necessary to empower instructors and ensure a smooth learning environment. Institutions can achieve this by providing comprehensive training and ongoing technical support to instructors. Investing in professional development programs will enhance their familiarity and comfort with MLLs, allowing them to address challenges and technical issues effectively. Additionally, prioritizing regular software updates, equipment maintenance, and troubleshooting protocol development will ensure seamless MLL functionality and address any malfunctions or support issues identified by teachers. In fact, Liu Wang et al. (2020) insights into technical challenges resonate with our findings, emphasizing the need for robust technical infrastructure and readily available support to fully leverage the potential of MLLs.

In this context, the study made a few recommendations. First, instructors should be provided comprehensive training and ongoing technical support. Second, in line with Al-Jarf's (2021) recommendations, institutions should allow for a normalization period where instructors can explore the MLLs at their own pace. Third, hands-on

workshops and peer mentorship programs should be established to help instructors gain proficiency in using MLL functionalities for CI training. Wang et al. (2020) also stress the importance of adapting teaching plans to technology-mediated environments to maintain the effectiveness of educational activities. Fourth, it is also necessary to maximize the potential of MLLs by integrating them systematically into the CI curriculum. Collaboration with instructors is key to developing activities and assessments that leverage MLL functionalities effectively. Finally, encouraging active learning by incorporating interactive exercises, peer evaluations, and real-world scenarios into MLL-based activities will foster deeper understanding of CI concepts, student participation, and motivation. This combination of a well-designed curriculum and active learning strategies will create a more engaging and enriching learning experience for students.

Additionally, in order that students get the most out of the technology and the program adapts to their needs, institutions should equip them with the necessary skills to utilize MLLs effectively. Providing training and orientation workshops, tutorials, and user guides will empower students to leverage MLL functionalities for recording interpretations, receiving feedback, and self-assessment, optimizing their learning experience. Moreover, establishing mechanisms for continuous evaluation and feedback on MLL use in CI teaching is crucial. Utilizing regular surveys, focus group discussions, and feedback sessions will provide valuable insights for iterative improvements and adjustments to the program.

Looking ahead, institutions can ensure the program remains at the forefront of CI training by fostering a culture of innovation and research. Supporting further research to explore innovative uses of MLLs in CI instruction and assess their impact on learning outcomes will be key. Encouraging collaborative research projects with industry stakeholders can drive innovation in MLL technology and pedagogy, leading to tailored solutions for CI training. Furthermore, developing long-term strategic plans for MLL integration into CI teaching, aligned with broader educational goals and priorities, is crucial. This may involve investments in infrastructure, faculty development initiatives, and pedagogical research to ensure sustained innovation and improvement in CI training programs. Last, but not the least, taking cultural considerations into account when implementing MLLs is essential. Adapting and customizing MLLs to meet the specific needs and preferences of Saudi Arabian students and instructors will enhance the relevance and effectiveness of the technology within the CI curriculum. This includes being sensitive to cultural norms, language proficiency levels, and existing educational practices.

The findings of this study would provide useful guidelines to academicians and practitioners to emphasize of technology integration in language learning and improving CI instruction in Saudi Arabia. These findings have identified challenges and offered potential solutions which may be utilized to plan targeted interventions and training programs to teach MLLs. The study will also contribute to a broader understanding about method to leverage technology and prepare students for successful careers in translation and interpretation. Future research should focus on the long-term impact of these labs on interpreting proficiency and explore additional strategies to overcome the challenges identified, such as instructor resistance and technical issues. Conducting follow-up studies to assess the effectiveness of MLLs after implementing these recommendations will eventually facilitate continuous improvement.

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