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BIBLICAL HEBREW: TEACHING AND LEARNING THE ALPHABET WITH AUDIO-VISUAL AIDS

Research Article

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Abstract

Sound mastery of the Biblical Hebrew alphabet is required for proficiency in Biblical Hebrew. This study examined Biblical Hebrew: teaching and learning the alphabet with audio-visual aids. Alef-Bet-Song and video lectures on Biblical Hebrew alphabet downloaded from YouTube were integrated into the lessons and taught during instructional process. A Quasi-experimental research design (involving experimental and control groups) was adopted for the study. 100 level undergraduate CRS students in four universities from south-west Nigeria formed the sample for the study. Achievement Test in Biblical Hebrew alphabet (ATBHA) was utilised for data collection, while research hypotheses were analysed using t-test. Findings revealed that the integration of audio-visual resources within the lecture format has a statistically significant effect on students' learning outcomes. In addition, it was affirmed that there is significant difference in the retention level of students exposed to Biblical Hebrew alphabet utilising lecture method complemented with audio-visuals after treatment. It was therefore recommended that Lecturers of Biblical Hebrew should adopt lecture method complemented with audio-visual aids during instructional process of Biblical Hebrew alphabet, and that they should align themselves with the trend of integrating available technologies, social media platforms, and audio-visual aids into their lessons for improved learning outcomes.

Keywords: Biblical Hebrew alphabet, Teaching-learning, Audio-visual aids, Lecture method

1. Introduction

Biblical Hebrew is one of the biblical languages (the second being Greek) and courses offered by the students of Christian Religious Studies at the undergraduate level in Nigerian universities and other degree awarding institutions such as colleges of education and theological colleges. The language is not only compulsory for all the students of Christian Religious Studies, it is also required for graduation by them. This makes the study of the language inevitable for all the students. Meanwhile, the inevitability of Biblical Hebrew in the study of Christian Religious Studies speaks volume of its relevance: for the students to have general understanding of the Bible, for them to be well-equipped in Old Testament theology, and for them to acquire relevant knowledge in hermeneutics and exegesis of the Old Testament. Hence, the study of Christian Religious Studies as a course of study at the undergraduate level cannot be devoid of Biblical Hebrew.

The teaching and learning of any language usually start with the alphabet of that language. When it comes to this, Biblical Hebrew is no exception. This assertion points to the fact that the alphabet is germane and key to learning any language, most especially by the second language acquisition learners (SLAL).Hence, the learning of Biblical Hebrew by the students of Christian Religious Studies, who are predominantly SLAL, usually start with the alphabet. The Biblical Hebrew alphabet is therefore written and read from right to left as

against other languages which the students are familiar with. This, in the first instance, poses a great challenge to the students in learning the alphabet. Other challenges associated with learning Biblical Hebrew alphabet by the students of Christian Religious Studies are: difficulties in pronunciation, reading, writing, and identification of the Hebrew alphabet letters. In order to gain proficiency in learning Biblical Hebrew, it is expedient for the students of Christian Religious Studies to master these key aspects of the language.

The achievement recorded in technology has necessitated that teachers should teach in a way that retention of knowledge among students is better attained through visualization of what is being thought. Meanwhile, audio-visual aids in teaching-learning process are considered to be relevant in promoting effective teaching and learning. Hence, they are utilized to enhance students' learning outcomes. Enekwe, et al. (2021) defined Audio-visual as the integration of diverse digital media types which include text, images, sound and video, into a combined multi-sensory conversational package to transmit a pieces of information. In his description of audio-visual, Ubaid (2020) said Audio connotes "hearing", while "visual" implies something that is visible. In addition, Engmann (2024) described audio-visual aid as any tool that expands on what a person already knows from reading by using sight and sound. So, every aid which enhances learning through the visual and auditory senses is called "Audio-Visual Aid." Such aids bring reality and vividness in to learning situations as much as possible and present concrete knowledge through the visual and auditory organs. Based on these definitions, it is evident that audio-visual aids engender a qualitative collection of sensory encounter to increase and strengthen the ideas represented in a learning material and promote teaching skills (Prem, 2018).

However, the undergraduate students of Christian Religious Studies learning Biblical Hebrew as second language acquisition learners need to be properly guided and provided with all the necessary learning resources that can aid effective teaching and acquisition of the language. In support of this assertion, Enekwe, et al. (2021) declare that students learning English as an additional language need to be supported and motivated as much as possible in order to assist them in their acquisition of all the four language learning skills which are: Listening, Speaking, Reading and Writing. Hence, the use of audio-visual tools in the teaching of English language is a technique that brings variety and adaptability into the teaching-learning situation. Students tend to like and enjoy the language class when teachers use diverse audio-visuals because it inspires them to pay more attention in the class, and they can relate their learning with their real life (Agbesi et al, 2025). According to Ubaid (2020), the use of audio-visual materials in the teaching-learning situation produces greater learning experiences on the part of the students. Owing to internet services, learners now have the opportunity access diverse videos relating to the ways of life and tradition of the aboriginal language speakers being targeted. It can help the students practice the target language. With the use of audio-visual materials in the teaching-learning situation, the learners are provided with diverse activities by which they are motivated to acquire the target language. He further asserts that a student-centred learning situation can be achieved through the use of language learning tools which help develop the learners' ability to think critically and acquire the problem-solving skills. This is the more reason why the teaching and learning of Biblical Hebrew alphabet needs to be supplemented with audio-visual materials.

The method of teaching often utilize by the lecturers of Biblical Hebrew at the undergraduate level during instructional process appears to be the traditional lecture method, which has been defined as 'a particular type of educational encounter in which a teacher transmits information to a number of students' (Krishna, 2012). This method, according to

Kapur (2020), is not suitable for teaching concepts involving thinking at higher level such as, application, analysis, and evaluation. Moreover, it is not worthy for teaching skills involving activities and cultivating moral values and attitudes. As for some subjects in sciences and humanities such as Mathematics and English with abstract concepts, it is often difficult to achieve desire objectives or learning outcomes with lecture method. In imparting knowledge and understanding with regards to complicated concepts, the lecture method is inappropriate. This is because it is teacher-centred: it does not cater for the learning needs of all learners in terms of active participation during instructional process.

Observations have shown that the students of Biblical Hebrew have challenges (as mentioned above) mastering the Biblical Hebrew alphabet which is the basis for gaining proficiency in the language. In line with the observations, Nicholson (2024) affirms that the students of Biblical Hebrew are faced with some specific challenges which include difficulties in identifying the consonant shapes, positioning the vowels appropriately under or beside the letters, and difficulties in differentiating between vowels *shuruq* and *holem vav* (וּand וֹ). In addition, diacritical marks like the degashim present another complex situation for the students: מָדָבַר and מִדְבַּר look alike in appearance but are different in articulation and meanings ("desert" and "speaking"). These are complex features of Biblical Hebrew difficult to master by most new learners of the Language. They experience these difficulties mostly in writing and reading of Biblical Hebrew. As a result, Hebrew words are wrongly produced and pronounced.

This seems to be responsible for the students' inability to make remarkable progress in learning Biblical Hebrew and eventually gain proficiency in the language. In order to enhance the students' learning outcomes in Biblical Hebrew, therefore, there is need to help the students at the elementary level, when they are being introduced to the alphabet and the sounds of the language, master the basic features of the Biblical Hebrew letters. Constant practice and timely correction of errors are required for appropriate mastery of concepts (Nicholson, 2024). Hence, it is necessary to complement the current traditional lecture method being utilized with audio-visual aids so as to make it more impactful and relevant to the learning needs of the students. Besides, the students will have the opportunity to learn independently at their own pace as many times as possible utilizing the audio-visual aids provided for their lessons, because they own and use mobile phones and personal computers which they can employ for that purpose. Based on this argument, Kapur (2020) declares that this will afford the students opportunity to engage themselves in various tasks and activities that will help them in problem solving. According to Nur & Muhammad (2023), the best way to help students make use of their senses and focus on their studies is to engage them in relevant learning activities.

Meanwhile, the objective of the study is to complement the traditional lecture method being utilized in the instructional process of Biblical Hebrew with audio-visual aids in order for the students to master and enhance their learning of the Biblical Hebrew alphabet so as to increase the level of their retention of learning contents and proficiency in the language. Based on this objective, the following research questions and hypotheses were raised and formulated to guide the study:

Research Questions

i. What is the influence of lecture method complemented with audio-visuals on the learning outcomes of students taught Biblical Hebrew alphabet before and after treatment?

ii. What is the influence of lecture method complemented with audio-visuals on the retention level of students taught Biblical Hebrew alphabet after treatment?

Research Hypotheses

i. There is no significant difference in the learning outcomes of students taught Biblical Hebrew alphabet utilising lecture method complemented with audio-visuals before and after treatment.

ii. There is no significant difference in the retention level of students taught Biblical Hebrew alphabet utilising lecture method complemented with audio-visuals after treatment.

2. Theoretical Framework

This study is premised on dual-coding theory (DCT), a theory of cognition introduced by Paivio (1986). At a fundamental level, dual coding theory is concerned with the nature of symbolic systems. It assumes that memory and cognition are served by two separate systems, one specialized for dealing with verbal information and the other for non-verbal information (Li, 2022). Based on this theory, Mayada (2023) affirms that visual and verbal technique usage creates meaningful impact in teaching. When the visual and verbal techniques are used simultaneously, it enhances cognitive processing in teaching and learning atmosphere for teachers and students. Therefore, learning a language has a close relationship with the ability to remember vocabulary, word structure, and grammar. The dual coding theory approach allows it to be implemented in language learning because this approach combines visual recognition, images, and information processing in the spatial domain. The process that occurs in DCT involves a decoding process that aims to change the received message so that it can be understood easily (Citra et al, 2022).

3. Literature Review

Biblical Hebrew

Biblical Hebrew also known as Classical Hebrew is both the language of the ancient Hebrew people and the Old Testament text. Hebrew is a Semitic language of the Northern Central (also called Northwestern) group; it is closely related to Phoenician and Moabite, with which it is often placed by scholars in a Canaanite subgroup. The language was spoken in ancient times in Palestine. It was supplanted by the western dialect of Aramaic beginning about the 3rd century BCE; although Biblical Hebrew continued to be used as a liturgical and literary language (Encyclopaedia Britannica, 2024). Biblical Hebrew in its narrow sense (*c*. 1000–530 BCE) is attested mainly in the pre-exilic books of the Hebrew Bible (Khan, 2013).

It should be noted that Biblical Hebrew exhibits little dialectal variety, but literary traces within the text indicate some degree of variation according to geography. During the early Mishnaic period, some of the guttural consonants of Biblical Hebrew were combined or

confused with one another, and many nouns were borrowed from Aramaic. Hebrew also borrowed a number of Greek, Latin, and Persian words. The language is written from right to left in a North Semitic script of 22 letters. Only consonants were written in the language's earliest period, and some of those consonants were later employed to represent long vowels as well. In the 7th century CE the Masoretes in Tiberias introduced into the writing system diacritical marks, which represented short vowels and other phonological information (Encyclopaedia Britannica, 2024).

Although Biblical Hebrew (BH) is regarded by many as a language with its own characteristic features, it is not uniform. It was used over a period of about 1000 years. Furthermore, archaization techniques (= application of archaic forms) or modernization techniques (= replacement of older forms by contemporary forms) were sometimes adopted in the writing. For the sake of convenience, therefore, BH has been subdivided into smaller categories which are: classical BH which is mainly the language of the prose sections of the pre-exilic periods; and late BH which is the language of the sections from postexilic period. Late BH shows similarities to the language of the Qumran texts and the latter is therefore also classified as such by some (Christo et al, 1999).

Meanwhile, as the language of the Old Testament, Biblical Hebrew is offered as a course in Christian Religious Studies programme at undergraduate level in Nigeria. The rationale behind this is to help the students align themselves with the ancient Hebrew way of thinking and understand the Biblical text in its original language, so as to acquire relevant knowledge necessary for Old Testament theology, hermeneutics and exegesis. This is in line with the overall goals for the study of Biblical Hebrew as discussed by William and Irvin (2011) which include but not limited to: to acquire sound grammatical knowledge of Biblical Hebrew; to acquire a sound understanding of thought processes in Biblical Hebrew grammatical; to develop an improved interest in the theology and languages of the OT; to be able to read correctly passages from the Hebrew OT books; and to be able to perform exegesis of the Hebrew OT.

Biblical Hebrew Alphabet

The Hebrew alphabet consists entirely of consonants, the first being א (Aleph) and the last being ת (Taw). It has 23 letters, but שׂ (Sin) and שׁ (Shin) were originally counted as one letter, and thus it is sometimes said to have 22 letters. It is written from right to left, so that in the word written אשׁ, the letter א is first and the letter שׁ is last. The letters are as follow: א ב ג ד ה ו ז ח ט י כ ל מ נ ס ע פ צ ק ר שׂ שׁ ת. The standard script for biblical Hebrew is called the "square" or "Aramaic script" (Duane & Jason, 2009). Pappas (2018) explains that the script of Hebrew has developed from what is called the Early Hebrew through the generation to what is called the Square Hebrew. The Early Hebrew alphabet is the original script of the Hebrew Bible up to the pre-exilic writings. There was developed among the scribes a cursive script which served the scribe's quick flowing hand. It is the time of the Babylonian captivity that the square script moves to the Hebrew alphabet. Thought to be derived from the Aramaic script, the Hebrew developed into a distinctive Jewish type of script.

The most developed Hebrew text is the square script, followed by the vowel pointing. Hebrew developed with a consonant only system wherein one knew how to pronounce the vowel sound of the word based on tradition and some basic rules. A verb had an "a" vowel sound, while a noun possessed an "e" sound. The Hebrew language almost went into extinction during the Babylonian captivity, but it was somehow restored in Jerusalem during the return

of the exiles. In an attempt to preserve the original sound, however, the Jewish scholars, the Masoretes, developed the vowel pointing system in A.D. 600-950 during the great diaspora (Pappas, 2018).

According to Christo, et al (1999), the most important task of the Masoretes was the transmission of the consonantal text with all accuracy. In order to maintain and strengthen the oral tradition, removing uncertainty, the Masoretes introduced vowel signs (or points) which were added to the consonantal text. It should be noted that before the introduction of the system of vowel signs, Biblical Hebrew (BH) had already been written in consonants. The vowel indicators were then added to these. The text was not alter, the vowel signs were only added as appropriate to the existing letters. In most cases, a vowel sign was either placed under, above or next to a consonant. In BH the consonant is normally read first followed by the vowel accompanying it.

Meanwhile, it is relevant to mention that the Biblical Hebrew consonants have some special features that have to do with: pronunciation of Hebrew letters א and ע; Hebrew letters with final forms; begadkephat letters; gutturals in the Hebrew alphabet and easily confused Hebrew letters (Duane & Jason, 2009; Zondervan Academic, 2018). Apart from these features, Biblical Hebrew consonants can be divided conveniently into six groups: begadkephat letters, sibilants, ט and ק, gutturals, liquids, and nasals. These six groups are not built around phonetic definitions of the Hebrew consonant system, although some phonetic terminology is used. These groups simply provide a framework for learning to pronounce the letters of the Hebrew alphabet (Duane & Jason, 2009). In terms of numerical values of the Biblical Hebrew consonants, each letter of the Hebrew alphabet represents a numerical value. The consonants א through ט represent the numbers 1–9. Consonants י through צ represent numbers 10–90 in multiples of 10 (10, 20, 30, etc.). And ק through ת represent the numbers 100, 200, 300 and 400 (שׂ and שׁ both represent 300) (Zondervan Academic, 2018).

4. Research Method

The adopted design for the study was a quasi-experimental one, involving pre-test, post-test, and control groups, that is, one experimental and control group each. The treatment for teaching was conventional lecture method complemented with audio-visual aids, while the control group was treated with conventional lecture method only. The population of the study consisted of all the undergraduate students of CRS in Nigerian public universities offering Christian Religious Studies at undergraduate level, while the 100 level CRS students in four universities from south-west Nigeria formed the sample for the study. The sample was selected through simple random procedure.

The instrument used for collection of data was Achievement Test in Biblical Hebrew alphabet (ATBHA). The Achievement Test covered four areas: transliteration, reading/pronunciation, writing and identification of Biblical Hebrew alphabet. The instrument was used for measuring the learners' proficiency level in Biblical Hebrew alphabet before and after treatment. Meanwhile, the following instructional guides: lecturers' instructional guide for conventional lecture method complemented with audio-visual aids, and lecturers' instructional guide for conventional lecture method without audio-visual aids were used in the course of teaching and learning before the administration of the instrument.

The procedure for the study took four forms: the pre-test stage, the treatment stage, the post-test stage, and the post post-test stage (retention stage). The researcher in conjunction with the CRS lecturers (with specialization in Biblical Hebrew) in the selected universities

administered pre-test on the students before the introduction of the treatment in order to determine whether the samples were homogenous or not.

The study incorporated experimental teaching sessions of 2 hour per lesson/lecture. The schedule of teaching covered 1 period per week in each of the selected universities for the research. The experiment also lasted for nine weeks during which the lessons designed for the experimental group through the conventional lecture method complemented with audio-visual aids were delivered by the concerned lecturers/research assistants simultaneously. The control group was taught using the conventional lecture method without audio-visual aids as they normally had it through their regular style of learning. The course outline for the two groups included but not limited to: Biblical Hebrew alphabet letters (reading/pronunciation, writing and identification), confusing letters, the phonetic value of the alphabet, the concept of vowel points, Hebrew letters with final forms, begadkephat letters, Gutturals in the Hebrew alphabet, gender in nouns, Hebrew numerical values, and basic transliteration. The experimental group was taught utilizing relevant audio-visuals (video lectures) downloaded from YouTube in teaching the course outline. The following are some of the pictures from the videos for the lectures:

Figure 1: Picture from Alef-Bet-Song by Debbie Friedman

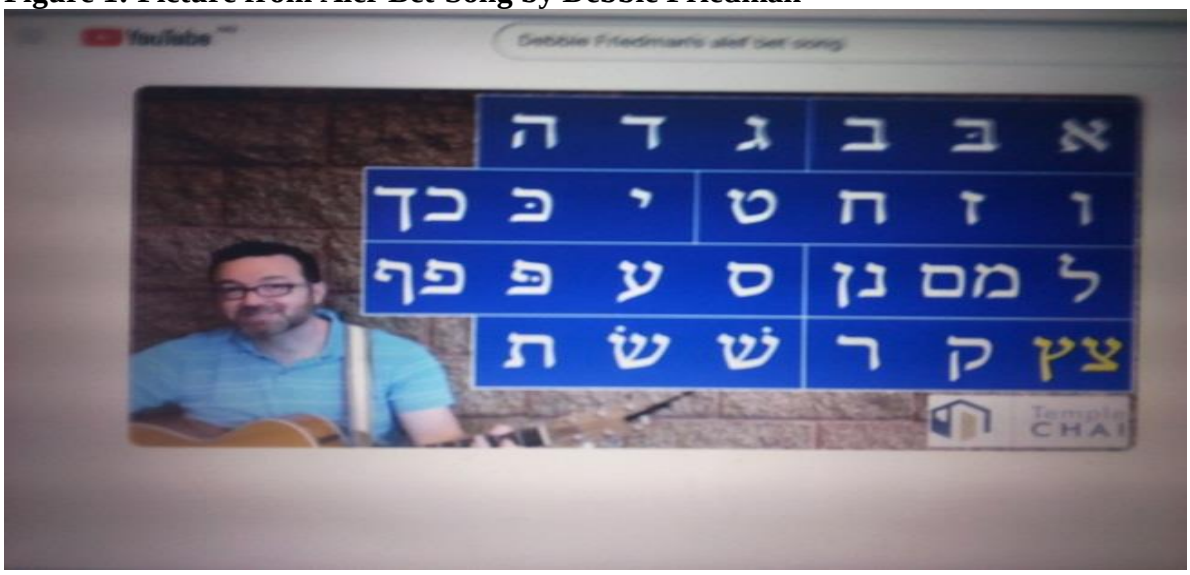


Figure 1 explains Debbie Friedman singing the Alef-Bet-Song.

Source:

https://www.youtube.com/results?search_query=Debbie+Friedman%27s+alef+bet+song

Figure 2: Pictures from Video Lecture on how to Write the Biblical Hebrew Letters

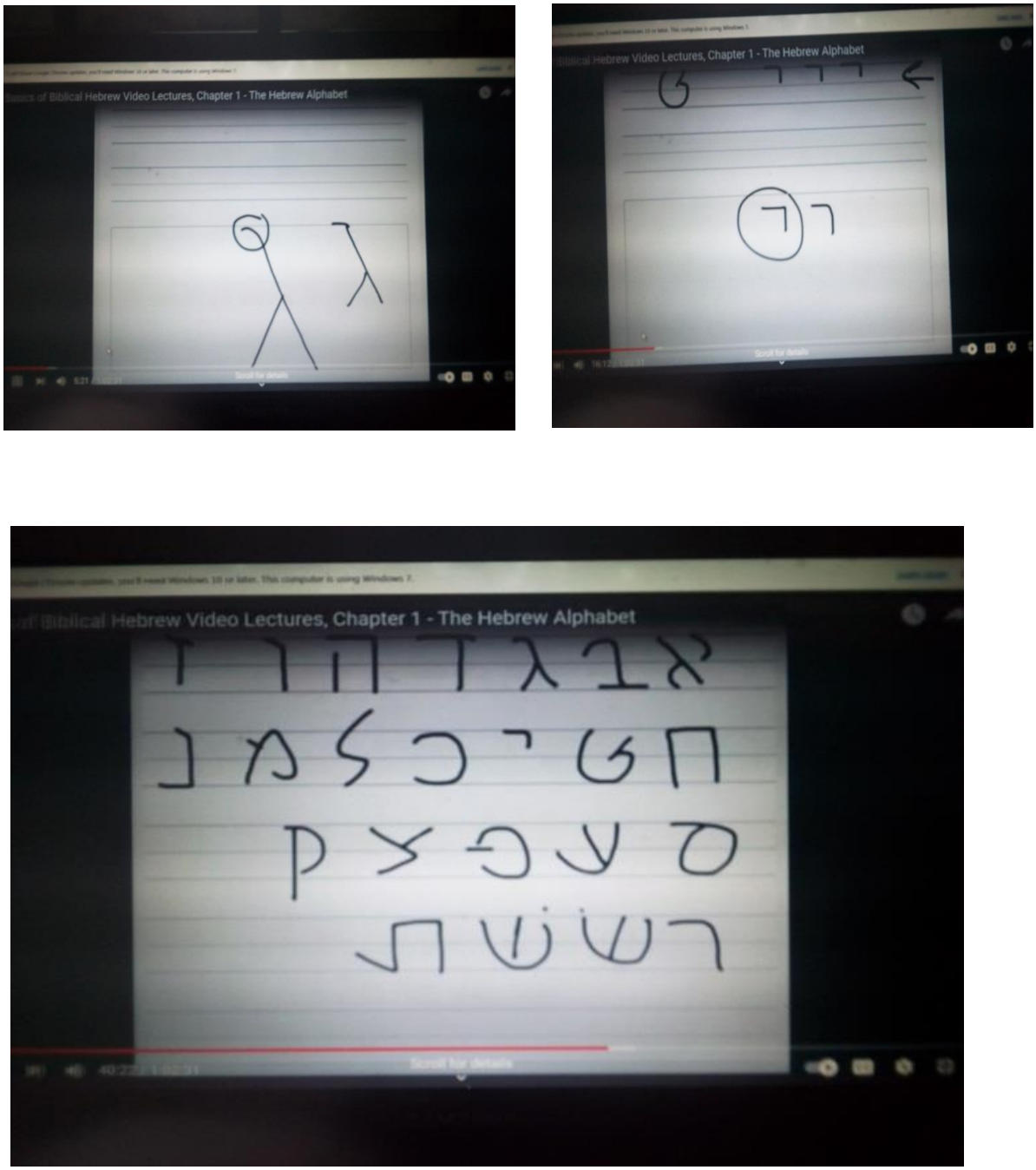
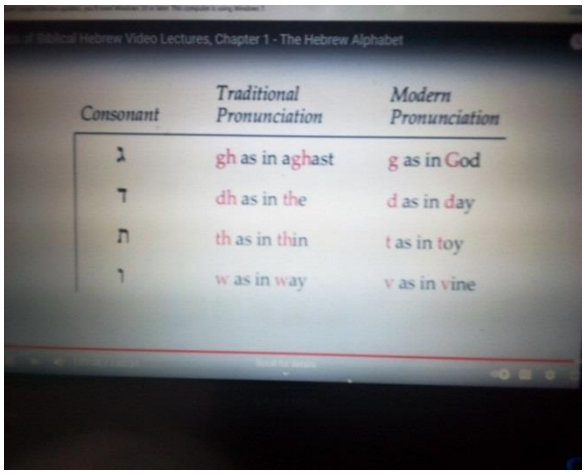


Figure 2 explains how to write the Biblical Hebrew letters.
Source:
https://www.youtube.com/results?search_query=biblical+hebrew+alphabet+for+beginners+

Figure 3: Pictures from Video Lecture on how to Pronounce the Biblical Hebrew Letters and Perform Transliteration



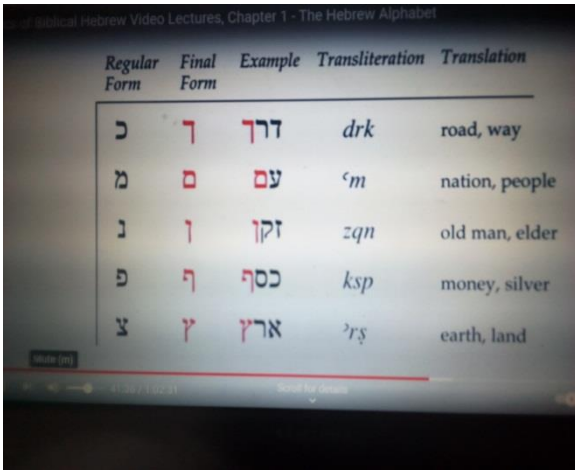


Figure 3 explains how to pronounce the Biblical Hebrew letters and perform transliteration
Source:
https://www.youtube.com/results?search_query=biblical+hebrew+alphabet+for+beginners+

Each lecture was introduced with the Alef-Bet-Song by Debbie Friedman. After each lecture, the audio-visual video lectures utilized during instructional process were forwarded to the students on their group WhatsApp platform to enable them listen and watch the videos repeatedly and as many times as possible. This was done in order to encourage and engage the students in further study at their convenient times for the purpose of enhancing their learning.

A post-test on CRS was administered on the students at the expiration of the ninth week. Scores were allotted accordingly for analysis using appropriate statistical tools. The data collected were analysed to answer the research questions and test the hypotheses formulated. Descriptive statistics involving mean and standard deviation were used to answer the research questions, while t-test was used for the hypotheses. The hypotheses were tested at 0.05 level of significance. The post post-test (retention) was administered on the students two weeks after the post-test.

5. Result

Research Question 1: What is the influence of lecture method complemented with audio-visuals on the learning outcomes of students taught Biblical Hebrew alphabet before and after treatment?

Treatment	N	Pretest Mean±SD	Posttest Mean±SD	Mean Diff
Lecture Method Without Audio-Visuals	26	2.57±1.13	32.26±9.31	29.69
Lecture Method With Audio-Visuals	28	2.53±1.23	49.67±12.60	47.14
Grand mean	**54**	**2.54±1.18**	**41.29±11.02**	

Table 1 shows the influence of a lecture method complemented with audio-visual aids on the learning outcomes of students taught Biblical Hebrew alphabet before and after treatment. The result indicated group instructed without audio-visual aids recorded an increase

in mean scores, from 2.57±1.13 in the pretest to 32.26±9.31 in the posttest, resulting in a mean difference of only 29.69. This indicates substantial improvement in learning outcomes for this group. Conversely, the group complemented with audio-visual aids demonstrated a significant enhancement in their learning outcomes, with pretest mean scores of 2.53±1.23 increasing to 49.67±12.60 in the posttest, yielding a significant substantial mean difference of 47.14. Based on the above analysis, there is positive effect of integrating audio-visual resources into the lecture method, highlighting its efficacy in facilitating greater students' engagement and understanding in learning the Biblical Hebrew alphabet.

Research Question 2: What is the influence of lecture method complemented with audio-visuals on the retention level of students taught Biblical Hebrew alphabet after treatment?

Treatment	**N**	**Posttest Mean±SD**	**Retention Mean±SD**	**Mean Diff**
Lecture Method Without Audio-Visuals	26	32.26±9.31	28.76±9.35	3.5
Lecture Method With Audio-Visuals	28	49.67±12.60	47.78±13.09	1.89
Grand mean	**54**	**41.29±11.02**	**38.62±11.29**	

Table 2 shows the influence of lecture method complemented with audio-visual aids on the retention levels of students after treatment in learning the Biblical Hebrew alphabet. The retention performance reveals that the group taught without audio-visual aids had a mean retention score of 28.76 (SD = 9.35), lower than a posttest mean of 32.26 (SD = 9.31), resulting in a mean difference of 3.5. This indicates a notable decline in retention levels for students exposed solely to the lecture method. In contrast, the group complemented with audio-visual aids demonstrated a mean retention score of 47.78 (SD = 13.09), following a posttest mean of 49.67 (SD = 12.60), resulting in a smaller mean difference of 1.89. This finding suggests that while retention was high in this group, there was a slight decrease from the posttest performance.

Hypothesis 1: There is no significant difference in the learning outcomes of students taught Biblical Hebrew alphabet utilising lecture method complemented with audio-visuals before and after treatment.

Treatment	**N**	**Pretest Mean±SD**	**Posttest Mean±SD**
Lecture Method Without Audio-Visuals	26	2.57±1.13	32.26±9.31
Lecture Method With Audio-Visuals	28	2.53±1.23	49.67±12.60
Df		52	52
T		0.127	-5.737
p-vlaue		0.899	.000

Table 3 shows that at the baseline, there was no statistically significant difference in the pretest mean scores between the control group (lecture method without audio-visuals) and the experimental group (lecture method with audio-visuals) (t = 0.127; p= 0.899), indicating homogeneity in prior knowledge. However, posttest results indicate a significant improvement

in learning outcomes for the experimental group (t = -5.737, p = .001), demonstrating that the integration of audio-visual resources within the lecture format has a statistically significant effect on students' learning outcomes. Consequently, we reject the null hypothesis, asserting that there is significant difference in the learning outcomes of students taught Biblical Hebrew alphabet utilising lecture method complemented with audio-visuals before and after treatment.

Hypothesis 2: There is no significant difference in the retention level of students taught Biblical Hebrew alphabet utilising lecture method complemented with audio-visuals after treatment

Treatment	N	Mean ±SD	Df	t	p-vlaue
Lecture Method Without Audio-Visuals	26	28.76±9.35	52	-6.098	.000
Lecture Method With Audio-Visuals	28	47.78±13.09			

Table 4 shows the difference in retention levels among students taught Biblical Hebrew alphabet using lecture method with and without audio-visual aids after treatment. The retention level, measured post-treatment, shows a mean score of 28.76 (SD = 9.35) for the group taught without audio-visuals, compared to a markedly higher mean of 47.78 (SD = 13.09) for the group utilizing audio-visual aids (t = -6.098, $p<0.05$), indicating a highly significant difference between the two groups' retention levels. This significant result demonstrates that the use of audio-visual aids in lecture method substantially enhances students' retention of the Biblical Hebrew alphabet. Therefore, we reject the null hypothesis, concluding that there is significant difference in the retention level of students taught Biblical Hebrew alphabet utilising lecture method complemented with audio-visuals after treatment.

6. Discussion

This study examined Biblical Hebrew: teaching and learning the alphabet with audio-visual aids. The t-test result of the study from hypothesis 1 reveals that there is significant difference in the learning outcomes of students taught Biblical Hebrew alphabet utilising lecture method complemented with audio-visuals before and after treatment. This means that the students exposed to lecture method complemented with audio-visual aids performed higher than their counterparts exposed to lecture method without audio-visual aids. By this finding, it implies that the use of audio-visual aids in the instructional process of Biblical Hebrew alphabet is effective in enhancing students' learning outcomes. Besides, it indicates that lecture method complemented with audio-visual aids is more effective than lecture method without audio-visual aids. As a result of this, it is preferable for lecturers of Biblical Hebrew to utilise lecture method complemented with audio-visual aids during the instructional process of Biblical Hebrew alphabet, rather than lecture method without audio-visual aids.

Therefore, the current findings agree with the earlier findings by scholars on the use and effectiveness of audio-visuals in teaching-learning process. Bawa and Fakomogbon (2021) reported that there is a significant difference between the academic performance of the pupils

taught alphabet reading conventionally and those taught the same using audio-visual aids. The decision is in favour of the experimental group with a mean score of 10.27 against the control group with a mean score of 5.20. In another study by Issa (2022), findings from the study reveal that the control group had a mean score of 7.36, with a standard deviation of 3.49, while the experimental group had a mean score of 88.29 and a standard deviation of 3.38. The mean difference between the two groups was 80.93, indicating that the experimental group performed significantly better than the control group. This means that the difference in academic performance between the two groups is unlikely due to chance and could be attributed to the use of audio-visual aids as a teaching tool. In addition, Ideh and Onyebuenyi (2022) found out that there is a significant difference in the mean achievement scores of students taught electrical installation and maintenance works with audio-visual technology as compared to those taught with conventional method. This means that students in experimental group achieved higher than those in control group.

The result from hypothesis 2 suggests that there is significant difference in the retention level of students taught Biblical Hebrew alphabet utilising lecture method complemented with audio-visuals after treatment. This significant result demonstrates that the use of audio-visual aids in lecture method substantially enhances students' retention of the Biblical Hebrew alphabet. By this finding, it shows that students in the experimental group retain cognitive contents in Biblical Hebrew alphabet better than their counterparts in the control group after the treatment and post-test. This is largely due to the use of lecture method complemented with audio-visuals as treatment for the students in the experimental group. Meanwhile, this finding has shown that lecture method complemented with audio-visuals is effective in enhancing students' retention level in Biblical Hebrew alphabet, and that it could be chosen over lecture method without audio-visuals during instructional process.

Meanwhile, the current findings corroborate the earlier findings by Atieku, et al (2023) who reported that the use of audio-visual aides in the classroom can significantly improve students' comprehension of academic concepts and knowledge, compared to classes taught without such aids. The use of audio-visual aides creates a more interactive and engaging learning environment that improves students' ability to retain information, resulting in higher academic achievement. Additionally, findings by Asia and Syed (2023) show that students who were taught history using audio-visual aids demonstrated a higher level of comprehension than those who were taught using the traditional chalk and talk teaching approach. The audio-visual aids and auditory cues seemed to help pupils understand the material more thoroughly.

7. Limitations of the Study

The sample size and scope of the study is a major limitation to the study. The study was carried out in four universities in South-West Nigeria, targeting only 100-level CRS students. This constitutes a limitation to the generalization of the findings to students in other regions or different academic levels. The short duration of the study is another limitation. The study covered a period of nine weeks, which might not be enough to appraise long-term retention and mastery of Biblical Hebrew. A longer study is necessary to analyze the progressive improvement and relevance of audio-visual aids in enhancing students' learning and retention

over a period of time. In addition, limited integration of other technological tools constitutes a limitation to the study. The study majorly utilised audio-visual aids (videos) without exploring modern interactive tools such as virtual reality (VR), AI tutors, gamification, and mobile apps. Therefore, incorporating multimodal learning approaches could promote students' engagement and learning outcomes.

8. Suggestions for Further Studies

Further studies could be carried out in order to build on the findings of this research. The scope and sample size of the study could be expanded. Similar research could be conducted across different regions in Nigeria and include students from other disciplines, not only Christian Religious Studies. In this way, it will be determined if the benefits of audio-visual aids are universal or subject-specific. Moreover, longitudinal studies on retention could be carried out. This could cover a period of eight months to one year in order to track retention rates over time. This would help establish if the effects of audio-visual learning persist or decline after the intervention. Future studies could compare audio-visual methods with interactive tools such as virtual reality (VR), AI tutors, gamification, and mobile apps. This will help determine the relevance and effectiveness of audio-visual aids in enhancing students' learning outcomes and retention.

9. Technological Innovations in Language Teaching

This research aligns with modern trends of using technology in language learning. The following are major technological innovations relevant to Biblical Hebrew and language education instruction in modern time: artificial intelligence (AI) in language learning, virtual reality (VR) and augmented reality (AR), gamification of language learning, mobile learning and cloud-based platforms, speech recognition and NLP-based language assistants, blended learning models, big data and learning analytics.

10. Conclusion

Teaching and learning Biblical Hebrew alphabet has always been a challenge to both the lecturers and students of Biblical Hebrew at undergraduate level in Nigeria. The fact that lecturers will teach and students will not comprehend and retain cognitive contents subjects many lecturers of Biblical Hebrew to psychological feelings on how to improve the learning outcomes of their students. On the part of the students, the fact that they face some challenges comprehending and retaining cognitive contents in Biblical Hebrew alphabet, their proficiency level in Biblical Hebrew becomes weak. In the light of this, this study offers a new method of effective teaching and learning of Biblical Hebrew alphabet, leveraging on the advantage of using modern technology (mobile phones and computers), and audio-visual aids during instructional process.

Meanwhile, it has been established through findings from the study that the students exposed to lecture method complemented with audio-visual aids performed higher than their counterparts exposed to lecture method without audio-visual aids. By this finding, it implies that the use of audio-visual aids in the instructional process of Biblical Hebrew alphabet is effective in enhancing students' learning outcomes. Besides, it indicates that lecture method

complemented with audio-visual aids is more effective than lecture method without audio-visual aids. As a result of this, it is preferable for lecturers of Biblical Hebrew to utilise lecture method complemented with audio-visual aids during the instructional process of Biblical Hebrew alphabet, rather than lecture method without audio-visual aids. In addition, it has been revealed that the use of audio-visual aids in lecture method substantially enhances students' retention of the Biblical Hebrew alphabet. By this finding, it shows that students in the experimental group retain cognitive contents in Biblical Hebrew alphabet better than their counterparts in the control group after the treatment and post-test.

Arising from the findings and conclusion of the study, therefore, the following recommendations are made:

i. Lecturers of Biblical Hebrew should adopt lecture method complemented with audio-visual aids during instructional process of Biblical Hebrew alphabet since it has been established to be effective in enhancing students' learning outcomes and retention level. This becomes necessary in order to bring about effective teaching and learning of Biblical Hebrew alphabet, and consequently enhances students' proficiency level in the language.
ii. Lecturers of Biblical Hebrew should align themselves with the trend of integrating available technologies, social media platforms, and audio-visual aids into their lessons for improved learning outcomes.

11. Ethics Approval

Since the study was conducted during the Biblical Hebrew lecture periods in the universities where the researcher and research assistants work, there is no need for the ethics committee approval.

12. Conflict of Interest

The author declares that there is no conflict of interest.

13. Funding

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