

Development of English Skills Practice Test Website for Omani Foundation Students: An ADDIE-Based Approach

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Abstract: This paper presents the design and development of an educational website using the ADDIE model. The project aims to provide Omani Foundation students with a functional and user-friendly platform to address their online practice test needs. The *analysis* phase involved a needs assessment through a Google Forms survey with current English language lecturers in Oman as respondents. The results of the needs assessment guided the *design* phase, which focused on the content, appearance, technology, accessibility, and purpose of the website. The *development* phase had two sub-phases: instructional content development, where AI played a crucial role, and web development using Wix. During the *implementation* phase, a soft launch was conducted with college and senior high school students in the Philippines to test the contents' overall functionality, interactivity, accuracy, and relevance. The *evaluation* phase followed, and the Wix platform's analytics offered traffic and engagement reports data. The website recorded 415 page views, 63 site sessions, and 22 unique visitors over 10 days. The data also revealed a 13% average bounce rate. These data indicate strong user engagement. Overall, the platform received positive feedback with minor critiques and observations. The comments and suggestions gathered during the soft launch served as a guide for the revision. The final product is accessible at <https://bit.ly/4hpIQGC>.

Key Words: ADDIE model; educational technology; English skills; Omani students

1. INTRODUCTION

Educational technology continues to develop and reshape how students learn and revolutionize teachers' teaching methodologies. It has become an integral part of modern education. Technology plays a crucial role, particularly in improving learning experiences. One effective way to provide academic support to students is by offering accessible and interactive practice tests.

With mobile phones, tablets, laptops, or desktops and a stable internet connection, students can easily access and engage in technology-based learning activities. Omani Foundation students are

well-equipped for such undertakings.

One of the key challenges Foundation students in Oman face is mastering the English language, particularly in the four macro-skills: reading, writing, listening, and speaking, which are essential for their academic and professional success. There seems to be a lack of online platforms where they can have practice tests that mirror their pen-and-paper English skills examinations. This project aims to bridge that gap by developing a user-friendly website offering structured practice tests to augment the current platforms for online practice they use.

A study supports this vision by demonstrating that an online English language test simulator significantly improves students' linguistic skills in

English as a foreign language (Arévalo & Mestanza-Ramón, 2022). Evaluation of similar undertakings reveals positive perceptions for facilitating the availability of activities, sources, and materials, encouragement of autonomous learning, and increased opportunities for practice and feedback (Soto & Eliche, 2022).

By incorporating user-friendly design and real-time feedback, the platform will help students test their knowledge, improve their skills, and boost their confidence in exams. Specifically, the website aims to:

- provide a flexible platform that can be used by students in a self-paced manner or guided by teachers in synchronous learning sessions,
- provide a platform for students to evaluate self-progress by completing mock tests and comparing their scores against targeted benchmarks,
- develop students' confidence in their English language abilities through regular practice and positive feedback from test results,
- offer users an efficient navigation through well-labeled exam sections such as reading, listening, or writing appropriate for their level,
- offer a user-friendly interface with real-time feedback and
- ensure mobile responsiveness and accessibility across different devices.

The ADDIE model guides the website development. ADDIE stands for Analysis, Design, Development, Implementation, and Evaluation (Molenda, 2003). It is a widely used framework in educational technology and instructional design.

2. METHODOLOGY

This section outlines the process of designing and developing the practice tests website for Omani Foundation students using the ADDIE model, ensuring it meets the student's needs while enhancing their learning experience through innovative technology. The continuous process of developing and maintaining a website aligns well with the cyclical

phases of the ADDIE model. This process ensures that technology-based instructional content is efficient and engaging.

1.1 Analysis

This phase identified the learning needs and users' preferences, which involved understanding the learners' characteristics and the context in which the learning will occur. The developer invited ten foundation English lecturers in Oman via email and Meta Messenger to gather data and sent the link to the Google Form. They were also encouraged to share the link with their colleagues. Due to time constraints, the developer only considered responses within one week.

Four English language lecturers responded to the needs assessment. These lecturers teach Omani students reading, writing, listening, and speaking skills across four Foundation levels. They have a strong understanding of what their students want and need. In addition, these lecturers are the secondary target users of the website and would play an important role in encouraging students to engage with the website.

The needs assessment revealed their preference to have the practice tests be presented in two modes: timed and untimed. Also, they preferred having the students be allowed to try the practice tests multiple times. Moreover, they preferred to have the correct answers revealed in the feedback feature, which complicated their prior preference of giving students the option to take the practice test multiple times. To address the issue, the feedback was set to show whether the answers were correct or wrong without giving the correct answers.

The needs assessment also revealed their preference for website features. They emphasized the importance of features such as the option to download practice materials, a chat function, and the inclusion of images to make the website more appealing and engaging. In addition, they preferred a website using cool color contrasts, basic fonts, and larger texts for better readability.

1.2 Design

Powell (2002) identifies five key aspects of website design that developers should consider: content, appearance, technology, accessibility, and

purpose. The developer thoroughly considered these aspects when designing the website.

The content design involved the following aspects: categorized practice tests based on skills and levels, an automated grading system that provides instant feedback on objective questions, particularly in reading and listening practices, and other identified preferences in the needs assessment.

The appearance also showcased the results of the needs assessment survey.

Regarding technology, the website used resources provided by Wix, such as Wix Forms for practice writing tests and an audio player for listening practice tests. It also used downloadable apps within Wix, such as Wix FAQ and Wix Chat. To accommodate timed mode for the practice tests, the developer subscribed to Time + Presenter, an app compatible with Google Forms.

To address accessibility, the developer designed the website to work in the three main browsers: Mozilla Firefox, Google Chrome, and Safari. The developer also designed it to function on different devices, such as mobile phones, laptops, desktops, and notebooks. However, the website users can only access the platform with a working internet connection.

As to purpose, the website has to be user-friendly, and its contents should help target users develop their skills and confidence in taking actual examinations.

Part of the design is risk management, which is a crucial aspect to ensure the reliability and effectiveness of the website. For example, data security remains a major concern, but strong authentication methods can mitigate this risk and prevent unauthorized access.

1.3 Development

The developer created the website in two separate stages: developing the instructional content and building the website.

1.3.1 Instructional Content Development

This website only offers reading, writing, and listening practice tests. Adding speaking practice tests was very challenging because actual tests are conversational, and available apps for this

undertaking are expensive and may not fully achieve human function in a conversational setting.

AI played an important role in generating content for this website. The developer employed Google Gemini and ChatGPT to create reading texts suited for second or foreign language English learners. ChatGPT also generated conversations, monologues, and lectures in the listening tasks. AI also produced the audio versions of ChatGPT's outputs using AI-powered platforms: Natural Reader (<https://www.naturalreaders.com>) and Luvvoice (<https://luvvoice.com>). The developer took additional recordings from Daily Dictation (<https://dailydictation.com/english-listening-materials-audio-free-download>). The downloaded recordings were transcribed using Turbo Scribe (<https://turboscribe.ai/>) and edited online through Audio Mass (<https://audiomass.co/>).

Actual test questions were prepared in Google Forms using quiz mode. The question types like multiple choice, true/false/not given, sentence completion, short answer, and essay reflect the format of the tests that Foundation students typically take on paper. The settings of the forms consider the preferences of teachers who responded to the needs assessment. The number of practice tests per skill and level also represented the same assessment. For example, Level 4 Listening has more practice tests than the other levels.

1.3.2 Web Development

Wix website builder's user-friendly and drag-and-drop interface provided ease in developing the website. It provides customizable templates and design tools, which were particularly helpful in simplifying the development process.

The website page structure contains three main parts: header, main page, and footer. Fig. 1 shows the header with the website name and logo, login bar, and website menu for easy navigation. It also holds the marquee, informing users that they can best view the site on desktops or laptops.



Fig. 1. Website's page header

Fig. 2 shows the main page that displays the particular content depending on the nature of the page. For example, the main page of the landing page displays the website's tagline, thematic images, and key links to other pages.



Fig. 2. Website's main page (landing page)

Fig. 3, on the other hand, shows the footer containing the website's name and logo and the admin's contact details.



Fig. 3. Website's page footer

The mobile phone version of the website contains the same element. The developer adjusted the screen display, but it sustains its functionality. For example, the header in the mobile phone version carries the same elements, but the login and website menu was transformed into a hamburger menu, as shown in Fig. 4.



Fig. 4. Website's page header (mobile version)

1.4 Implementation

Before the soft launch, the developer published the website for checking and verification, allowing it to be accessed via its URL and viewed as a fully functional platform. The developer also checked the website's compatibility with different devices and major web browsers.

The website went live and opened on the World Wide Web over 10 days, from March 1 to 10, 2025, for the soft launch. The purpose of the launch was to check the website's overall functionality. The developer promoted and invited two high school and three Filipino college students to explore the platform. They were encouraged to invite other students to access the website.

1.5 Evaluation

The continuous evaluation relies on users' feedback and the website's built-in data analytics. The data analytics give traffic and behavior reports. Traffic metrics include page views, site sessions, unique and returning visitors, and sessions by device. On the other hand, behavior metrics analyze visitor engagement, such as bounce rate, average pages per session, and average session duration. Bounce rate pertains to the number of visitors who leave the site after viewing only one page.

3. RESULTS AND DISCUSSION

Table 1 reveals the daily traffic report over the 10-day soft launch, particularly on the number of page views, site sessions, and unique visitors.

Table 1. Daily traffic report

Date	Page Views	Site Sessions	Unique Visitors
Mar. 10	44	3	3
Mar. 9	11	2	2
Mar. 8	55	9	6
Mar. 7	16	4	3
Mar. 6	98	16	9
Mar. 5	28	6	4

Date	Page Views	Site Sessions	Unique Visitors
Mar. 4	22	5	3
Mar. 3	136	17	6
Mar. 1	5	1	1
Total	415	63	22*

*Number of visitors using different IP addresses

The website recorded 415 page views, indicating total user engagement over the soft launch period. It also received 63 site sessions, which shows the number of separate browsing sessions that took place. There were 22 unique visitors using different IP addresses, which reflects the number of distinct visitors. Table 1 shows that the highest traffic occurred on March 3, 2025, with 136 page views, 17 sessions, and 12 unique visitors. The relatively high number of page views compared to the number of unique visitors suggests that users explored multiple pages during their sessions.

Table 2. Traffic by device

Type	Page Views	Site Sessions	Unique Visitors
Mobile	319	54	17
Desktop	96	9	5
Total	415	63	22

Table 3 displays how the website visitors accessed the website based on device type. As can be seen, mobile devices accounted for the majority of the traffic (77% of total page views, 86% of all site sessions, and 77% of unique visitors). Desktop users accounted for a significantly smaller portion of the website users (23% of total page views, 14% of all site sessions, and 23% of unique visitors).

These results mirror the latest Philippine data on desktop versus mobile web traffic, which reveals that web visitors from the Philippines prefer mobile devices (63.31%) over desktops (36.69%) (Statcounter Global Stats, 2025).

Table 3. Daily behavior report (March 1 – 10, 2025)

Date	Bounce Rate	Avg. Pages per Session	Avg. Session Duration
Mar. 10	33%	4.7	15m, 40s
Mar. 9	0%	4	8m, 4s
Mar. 8	11%	3.3	3m, 30s
Mar. 7	0%	3.3	11m, 53s
Mar. 6	6%	3.4	6m, 10s
Mar. 5	17%	2.8	1m, 41s
Mar. 4	20%	2.8	4m, 6s
Mar. 3	18%	3.4	8m, 34s
Mar. 1	0%	4	1m, 14s
Total Avg.	13%	3.4	6m, 38s

Table 3 shows that the lowest bounce rate (0%) was recorded on March 1, 7, and 9, while the highest (33%) occurred on March 10. However, the highest average of pages (4.7) visited per session and the most extended average session duration (15m, 40s) also occurred on March 10. These records suggest meaningful engagements on that day despite a higher bounce rate. March 3 and 7 also show strong engagement with longer sessions and low bounce rates. A low bounce rate and longer average session durations support the platform's potential to maintain visitor interest.

Over the same period, website visitors checked and tested the website's design and overall functionality and gave positive feedback. They had no complaints about issues concerning interactivity and compatibility. However, the visitors raised some concerns. First, the main practice page's buttons were too tight, making clicking them challenging. Second, some texts in the images, particularly in the reading practice tests, were pixelated. Third, one of the questions in the practice test was duplicated. These are valid concerns that could affect the overall experience and impression of the users on the website, particularly in terms of ease of use and usefulness.

Data analytics and initial user feedback indicated that the website met its functional objectives and served its intended purpose. However, some limitations may have affected both the development process and the user experience. First, the developer has limited technical expertise, which may have constrained the implementation of more advanced features. Second, the design and

development timeline of the website was compressed, allowing limited time for testing and revisions that may have contributed to usability and ease of use issues reported by users. Third, the website was built using a basic-tier subscription, restricting access to advanced features such as custom domains, enhanced security, and detailed analytics. These limitations may have affected the platform's overall functionality.

Furthermore, the soft launch involved Filipino students instead of Omani students, which could have yielded different results. Also, the time frame for the soft launch was short. A longer time frame could have allowed for a broader data gathering.

4. CONCLUSIONS and RECOMMENDATIONS

The website showed stable traffic and user engagement results over the soft launch period. Overall, the data suggest that the website users were relatively engaged—the low bounce rate, page views, and website sessions particularly back this up. Though the reasons for leaving after landing on the main page were not established, the lower data on the bounce rate could still be improved. The developer can improve the bounce rate by addressing the page load speed, ensuring responsiveness, and matching content with the users' aim. In addition, the visuals and headlines may need to be enhanced to attract interest.

The data strongly indicates the users' preference for mobile devices when accessing the platform. Since most users access the Internet using mobile devices, website designers and developers must optimize websites for smaller screens to ensure a smooth user experience.

The concerns raised by the visitors served as a guide for the revision. The developer should perform a thorough inspection to make sure that the contents are well-organized and the texts are readable. It should also ensure the website is completely user-friendly by providing easy navigation across the web pages.

AI played a significant role in the website development. Future works can maximize their potential, not just in content creation. Website

developers can also tap AI in planning, designing, coding, testing, and personalization.

5. ACKNOWLEDGMENTS

The author wishes to acknowledge Dr. Jasper Vincent Alontaga, DLSU Faculty, who provided guidance and valuable inputs in developing this project and for the encouragement to submit this paper to this research congress.

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