Using the ADDIE Model to Develop an Online Professional Development Program for Non-Specialist ESL Teachers

Noraini Zulkepli
English Language and Literature Department, Sultan Idris Education University (UPSI)
Tanjong Malim, Malaysia.
Corresponding Author: noraini@fbk.upsi.edu.my

Intan Safina Mohd Ariff Albakri
English Language and Literature Department, Sultan Idris Education University (UPSI)
Tanjong Malim, Malaysia.
Email: safinas@fbk.upsi.edu.my

Puteri Zarina, Megat Khalid
English Language and Literature Department, Sultan Idris Education University (UPSI)
Tanjong Malim, Malaysia.
Email: puteri.zarina@fbk.upsi.edu.my

Mohd Faisal Farish Ishak
Language and Technology Department, English Language Teaching Centre (ELTC)
Nilai, Malaysia.
Email: faisalfarish@eltc.edu.my

Received: 03/19/2024 Accepted: 07/01/2024 Published: 07/28/2024

Abstract
The present article reports a study that employed the Analysis, Design, Development, Implementation and Evaluation instructional design model to develop an e-speaking skills upskilling programme. It is guided by the research question: How do subject matter experts rate the Instructional Design, Content, User Control, and Technical components of the online learning platform prototype? The study is significant because it addresses the gap in research regarding the development of an Online Teacher Professional Development programme specifically targeted at enhancing the speaking skills of a group of non-specialist English language teachers. It describes the development of the prototype that involves several stages: Analysis, Design, Development, Implementation, and Evaluation. At the Implementation stage, expert validation was conducted where five subject matter experts were asked to rate the Instructional Design, Content, User Control and Technical components of the online learning platform. The findings indicate that the Content component requires revision, especially on items concerning bias and suitability with the learning objectives. Some suggestions to address the issues were provided. It is concluded that expert validation is important at the Implementation stage as it aligns with the continuous improvement that is fundamental to the ADDIE model.

Keywords: ADDIE Model, ESL teachers, expert validation, non-specialist teachers, Online Professional Development Programme, speaking skills, e-upskilling

Introduction

Despite the prevalence of online Professional Development (OPD) programs for teachers, there is a lack of research on the application of the ADDIE Model aimed at enhancing speaking skills among non-specialist English language teachers. Non-specialist teachers are teachers who come from a variety of subject specialism and are required to teach subjects that are aligned with their areas of expertise (Darlington, 2017). The initiative to recruit non-specialist teachers to teach English is not uncommon. In some countries, homeroom teachers who are non-specialists are required to teach English due to a shortage of skilled English teachers (Matsumura, 2022). Zein (2016) points out that the risk of recruiting non-specialist teachers to teach the target language is that they lack the pedagogic knowledge and skills. Richards (2008 as cited in Coniam, Falvey & Xiao, 2017) contends that the teaching of English is a “career of educational specialization”, where the requirements to enter the profession include meeting the required language proficiency, and possessing both the pedagogic and subject-matter knowledge. Due to this, non-specialist ESL teachers must possess the required level of mastery of the target language.

Past research has investigated features of effective traditional face-to-face Professional Development (PD) programmes (Meyer, Kleinknecht & Richter, 2023). While previous research has utilized the ADDIE Model for the development of OPD programmes (Trust & Pektas, 2018; Yeh & Tseng, 2019; Bundrage & Mapson, 2022), there is a notable gap in its utilization specifically for the enhancement of the speaking skills among non-specialist teachers. This study aims to investigate the effectiveness of utilizing the ADDIE Model in designing OPD programmes tailored to improve the speaking skills of non-specialist English language teachers. This study is significant as it addresses the gap in research regarding the development of OPD specifically targeted at enhancing the speaking skills of non-specialist English language teachers. By filling this gap, the study contributes to the advancement of effective professional development strategies that cater to the specific needs of this particular group of English teachers. The objective of the research is to assess the effectiveness of the online learning platform prototype through expert validation. The research question is: How do subject matter experts rate the Instructional Design, Content, User Control, and Technical components of the online learning platform prototype?

Literature Review

Teacher Language Proficiency

In an ESL/EFL context, teacher Language Proficiency (LP) is often regarded as the primary quality; to the extent that some might regard teachers who do not master the target language well have a lower standard of professionalism and self-esteem (Eslam & Fatahi, 2008 as cited in Tsang, 2017). To explore more about teacher LP, it is important to first understand its definition. In general, it could be said that LP is a straightforward concept that is easily understood by many. However, it becomes a complex construct when one attempts to define it in relation to LP among ESL teachers (Faez et al., 2021) (Faez, Karas, & Uchihara, 2021). This is due to the presence of compounding factors such as the “content, tasks, contexts and classrooms” (Elder, 2014) that can be related to this construct. Faez et al. (2021) add one more dimension to the complexity of LP varieties of English.

Attempts have been made by some scholars to define LP among ESL teachers. Tsang (2017: 112) argues that finding the most accurate definition of LP is not necessary as “an ultimate watertight one is unlikely to be produced”. However, she stresses that teachers need to achieve a certain level of LP; and that it should ideally be above the learners’ level. The same observation is
made by Sadeghi et al (2020) as findings in their study suggest that there is a link between teachers’ proficiency and the effectiveness of their teaching; which could be further explored through the lens of self-efficacy. Self-efficacy is introduced by Bandura (1997) and he suggests that “people’s beliefs in their efficacy affect almost everything they do: how they think, motivate themselves, feel, and behave” (p. 19). In the area of ESL, Richards (2023) views self-efficacy as a “teacher’s view of his or her own effectiveness” (p. 4).

Research into language teacher self-efficacy has shown connections between this psychological construct with various aspects of teaching. To illustrate, studies by Akbari and Karim Allvar (2010) and Swanson (2014) have shown that teachers with a higher sense of self-efficacy can positively impact their students’ performance. Other studies, however, show a range of correlations between teachers’ self-efficacy and pedagogical aspects (Shim, 2001; Eslami & Fatahi, 2008; Yilmaz, 2011; Ghasemboland, 2014). Shim’s (2001) research found minimal to no link between the self-efficacy of Korean English language teachers and their reported proficiency in English. Still examining the relationship between the two constructs, a study by Ghasemboland (2014) indicates a strong correlation. Thus, it could be said there is a relationship between these two constructs as reported in several studies but with various strengths of correlations.

Online Teacher Professional Development (OTPD)

OTPD programmes have become more widespread in recent times, largely due to the impact of the COVID-19 pandemic, which prompted a transition from traditional in-person formats to virtual learning environments (Carrillo & Flores, 2022). Powell and Bodur (2019) describe OTPD as a learning opportunity occurring in courses, workshops, or training sessions, serving diverse purposes across various subjects and delivered through different methods like synchronous, asynchronous, and self-directed (Ross, 2011). According to Parsons et al.(2019), the asynchronous and self-paced nature of OTPD enables educators to engage with learning materials without being bound by time or location, offering them the convenience of accessing professional development resources at their own pace. Badri et al. (2016) highlighted this flexibility allows teachers to save time that would have been spent traveling to traditional face-to-face professional development programs, potentially serving as a motivating factor since time constraints often hinder their participation in such activities.

For an OTPD to be beneficial, focusing on social presence and teacher presence is essential in online learning (Parsons et al., 2019). Holmberg et al. (2010) explained that social presence involves engaging with fellow participants in the program through different activities, while teacher presence encompasses the support provided by the course creator and subject matter expert (Baker, 2010). Between the two, Oregon et al. (2018 as cited in Parsons et al., 2019) stated that social presence is often seen as more important in online learning. In online learning environments, social presence arises as participants form impressions of each other through their interactions (Wempe & Collins, 2024). Having a strong social presence in online learning settings is important because it influences how students learn, their satisfaction with the experience, and their level of interaction (Al-Naabi, 2023). Kreijns et al. (2013 as cited in Wempe & Collins, 2024) cautioned online learning developers that “simply enabling social interaction, therefore is not enough; it must be stimulated” (pg. 25).

Previous research has established that the presence of social interactions plays a crucial role in digital learning settings (Al-Naabi, 2023; Khee et al., 2023; Watson et al., 2023; Liru, 2024). Findings in a phenomenographic study that investigated teacher social presence in professional learning environments revealed that teachers who felt supported and engaged in the learning process reported a stronger sense of self-efficacy, which positively impacted their teaching effectiveness. This highlights the importance of creating a supportive and interactive online learning environment for teachers to effectively develop their skills and enhance their teaching practices.”
development webinars highlighted the importance of creating a welcoming and inclusive environment for effective online learning experiences (Al-Naabi, 2023). Strategies like interactive discussions and breakout rooms were used in the study to foster collaboration. The participants reported feeling more present in such webinars (Al-Naabi, 2023). In a study by Khee et al. (2023), chatbots were used to support student engagement through social presence. In Study 1 which involved postgraduate students, a goal-setting chatbot was used to help students set learning goals; in Study 2, a learning buddy chatbot was designed to guide a group of undergraduate students with EFL listening practices. Overall, findings showed that both chatbots were found to positively impact student engagement, goal setting, and social presence in online learning activities. Students appreciated the guidance, interaction, and support provided by the chatbots, highlighting the potential benefits of incorporating chatbots into online education to enhance student learning experiences Khee et al. (2023).

Despite the advantages, online teacher professional development (OTPD) faces various challenges. For instance, the use of digital tools may create barriers for teachers to access learning materials, potentially hindering active learning experiences (Meyer, Kleinknecht & Richter, 2023). Additionally, there is a risk of teachers losing focus easily, leading to demotivation and a higher attrition rate (Geri et al., 2017; Hollis & Was, 2016). Another hurdle is fostering participant interaction, as teacher educators struggle to facilitate meaningful engagement in OTPD programs, lacking the physical interaction opportunities present in face-to-face professional development sessions. Given these obstacles, it is crucial to carefully design OTPD programs to ensure that teachers can derive maximum benefit from them.

**The ADDIE Model**

Instructional Design (ID) technology is the use of technology to design, develop, and deliver teaching materials and learning experiences. There are several ID models such as the Dick and Carey Model, the ASSURE Model, the ARCS Model, the KEMP Design Model, and the ADDIE Model (Ghani & Daud, 2018). However, the ADDIE model is said to be the one that contains most of the elements that are present in the different models (Molenda, 2015).

Molenda (2015) asserts that the design process of the ADDIE model is both “sequential and iterative” (p 40). It is sequential because this model begins with the first step which is analysis which is usually done through needs analysis. Data from the needs analysis serves as the input to design a particular learning program. The next stages are the development of the learning program and the implementation of the program. The final stage is the evaluation of the program. The design process is also iterative as it enables the developer to go back and forth between the stages according to one’s needs (Molenda, 2015) due to the “interconnected nature of the five components” (Trust & Pektas, 2018, p. 221).

**Method**

The up-skilling programme, named Booster (Figure One), was developed based on the ADDIE model which involved several important stages. The first stage was analysis. In this study, a survey on the teachers’ needs (needs analysis) was conducted. Data from the analysis were used to develop the learning objectives. The second phase is where the researchers designed the program based on the learning objectives and the chosen theoretical framework. As the program caters for non-specialist ESL teachers, their specific needs were addressed through the selection of topics and the types of activities.
The third stage: the development phase is a crucial one where the instructional design is transformed into tangible learning materials. The content was designed for a total of 41 hours and 30 minutes of Student Learning Time (SLT). The specific number of hours was set as a requirement by the collaborator of the research: the State Education Department. There were three comprehensive units. Each unit comprised four components dedicated to pronunciation, grammar, vocabulary, and social and linguistic conventions.

![Image of Booster](image)

*Figure 1. The prototype: Booster*

The fourth stage is implementation. In the present study, the prototype was validated by five Subject Matter Experts (SME). Below are their background information.

<table>
<thead>
<tr>
<th>Subject Matter Expert (SME)</th>
<th>Education Level</th>
<th>Field of Expertise</th>
</tr>
</thead>
<tbody>
<tr>
<td>SME 1</td>
<td>PhD</td>
<td>Applied Linguistics</td>
</tr>
<tr>
<td>SME 2</td>
<td>PhD</td>
<td>Teacher Education</td>
</tr>
<tr>
<td>SME 3</td>
<td>PhD</td>
<td>Teacher Education</td>
</tr>
<tr>
<td>SME 4</td>
<td>PhD</td>
<td>Educational Technology</td>
</tr>
<tr>
<td>SME 5</td>
<td>PhD</td>
<td>Educational Technology</td>
</tr>
</tbody>
</table>

Using a 5-point Likert scale checklist developed by Stapa and Mohammad (2019), the SMEs were asked to rate Booster based on 4 main criteria: Instructional Design (7 items), Content
(4 items), User Control (3 items), and Technical (3 items). The data obtained were analysed descriptively.

It needs to be highlighted here that the present article focuses on the results obtained from the expert validation during the Implementation stage. Further improvements were made based on the findings before the final stage of the ADDIE model i.e., the Evaluation stage was conducted. Figure Two below illustrates the research procedure of the study.

![Research Procedure Diagram](image)

**Figure 2.** The research procedures

**Results**
Table Two shows the results of the expert validation by the subject matter experts.

<table>
<thead>
<tr>
<th>Table 2. Expert validation</th>
<th>Item</th>
<th>Subject Matter Expert</th>
<th>Total</th>
<th>%</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>PART 1: Instructional Design</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. The teaching method is in line with the participants’ level.</td>
<td>5 5 4 4 5</td>
<td>23 92</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. The teaching strategy is in line with the content.</td>
<td>5 4 5 4 5</td>
<td>22 88</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. The language used is in line with the participants’ level.</td>
<td>4 4 4 5 5</td>
<td>22 88</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. The use of media helps learning.</td>
<td>5 5 5 5 4</td>
<td>24 96</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. The interactive level is sufficient.</td>
<td>4 4 4 5 4</td>
<td>21 84</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Feedback given is sufficient.</td>
<td>5 5 5 5 5</td>
<td>25 100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. The presentation of learning materials is in order.</td>
<td>4 4 4 4 4</td>
<td>20 80</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PART 2: Content**
Using the ADDIE Model to Develop an Online Learning Platform

Zulkepli, Albakri, Khalid & Ishak

1. The content is free from spelling mistakes. 5 4 5 4 5 23 92 79
2. The content is accurate. 5 4 5 5 4 23 92
3. There is no gender or race bias. 3 3 4 3 3 16 64
4. The content is in accordance with the learning objectives. 4 3 3 3 4 17 68

PART 3: User Control
1. Users can control learning speed. 4 4 4 4 4 20 80
2. The interface is interesting. 4 4 4 4 5 21 84
3. The user menu is appropriate. 5 5 5 5 5 25 100

PART 4: Technical
1. The application can be used without any problem. 5 5 5 5 5 25 100
2. The application is error-free. 5 5 5 5 5 25 100
3. The media content (text, images, videos, and animations) in this application meets expectations in terms of quality. 4 5 5 5 4 23 92

For Part 1 - Instructional Design, all of them rated 5 five for items 6 six which concerns the amount of feedback given to the participants. For Part Two- Content, item three (There is no gender or race bias) was rated the lowest (64%). This is followed by item four: The content is in accordance with the learning objectives (68%). For Part Three- User Control, all of them felt that the user menu was suitable for the platform’s purpose and target audience. For Part Four, two items (The application can be used without any problem and The application is error-free) were rated five by all experts.

To better understand the above results, the conversion level of achievement (Agung 2014, as cited in Dewi & Sujana, 2021) is referred to (Table Three). On the scale used, one component: Technical is rated as Very Good, indicating that this component is very feasible and no revisions are required. Another two components: Instructional Design and User Control are rated as Good; which indicates that both components are Good thus no revision is required. However, the Content component, with a mean score of 79%, falls into the adequate category. This suggests that while it is feasible enough, some revision is required.

Table 3. Conversion level of achievement scale

<table>
<thead>
<tr>
<th>Success Rate (%)</th>
<th>Level</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-100%</td>
<td>Very good</td>
<td>Very Feasible/ No Revision Required</td>
</tr>
<tr>
<td>80-89%</td>
<td>Good</td>
<td>Feasible / No Revision Required</td>
</tr>
<tr>
<td>65-79%</td>
<td>Adequate</td>
<td>Feasible Enough/ Revision Required</td>
</tr>
<tr>
<td>55-64%</td>
<td>Insufficient</td>
<td>Less Feasible/ Revision Required</td>
</tr>
<tr>
<td>0-54%</td>
<td>Very insufficient</td>
<td>Very Inappropriate/ Revision Required</td>
</tr>
</tbody>
</table>

Adapted from Agung 2014 (as cited in Dewi and Sujana, 2021, p. 369)

Discussion
To answer the research question: How do subject matter experts rate the Instructional Design, Content, User Control, and Technical components of the online learning platform prototype?, findings show that the subject matter experts rated the Instructional Design as very feasible, the Content adequate, the User Control feasible, and the Technical component of the prototype highly effective.

For the Instructional Design component, the item- the feedback given was rated the highest. In Booster, it was designed so that the participants would receive feedback from their peers as well
as the e-facilitator and the e-administrator. This is in line with the concept -social presence, which is known to be crucial in online learning environments (Al-Naabi, 2023; Khee et al., 2023; Watson et al., 2023; Liru, 2024).

In Booster, for social interaction to “be stimulated” (Kreijns et al. 2013 as cited in Wempe & Collins, 2024), tasks that required the participants to communicate with each other were designed where the participants would give feedback to each other by giving comments on each other’s presentations that would be uploaded on Facebook, as well as during group discussions. Furthermore, within this web-based educational platform, participants will benefit from the guidance provided by the e-facilitator, an experienced ESL teacher with 25 years of experience, as well as support from the e-course administrator, a full-time research student who will help with any technological issues that may arise.

Based on the findings, revision is required for the Content component. The main issues are with item three which concerns bias and item four on the suitability of the content with the learning objectives. In relation to the first concern, the team realised that quite a number of the examples given in the input and the voice used in the video were gender bias; where more female characters and voices were used. Kerkhoven, Land-Zandstra and Saxena (2016) in their study on gender stereotypes in science education resources found that there is a tendency for men and women to be portrayed in stereotypical ways. Their analysis found that more men were depicted in science-related professions while more women were portrayed in the teaching profession. They suggested that there was a need to create a balanced representation of men and women in educational resources. In relation to this, in the present study, male characters and voices were used to avoid gender stereotypes.

To address the second concern, as the program caters for non-specialist ESL teachers, their specific needs were addressed through the selection of topics and the types of activities. For example, for the pronunciation component, the focus is given on commonly mispronounced sounds by Malaysian speakers such as the /θ/ and the /ð/ sounds (Enxhi, Hoon, & Fung, 2012). Ample opportunities to practise the language were created to enable the participants to practise their pronunciation and use the target language. By incorporating specific pronunciation targets and interactive practice activities into the program for non-specialist ESL teachers, the curriculum is designed to help participants improve their own pronunciation skills; this approach reflects a learner-centered perspective on language teaching and learning (Nhung, 2023).

Conclusion

To conclude, while the Instructional Design component was well-received, improvements are required for the Content component to ensure alignment with inclusivity and learning objectives for a diverse audience of ESL teachers. In terms of Instructional Design, feedback was rated the highest, with the prototype designed for participants to receive feedback from peers, e-facilitators, and e-administrators through various channels such as group discussions and presentations. However, revisions are needed for the Content component, particularly regarding biases in examples and the suitability of content with learning objectives. The content developers addressed gender bias by using male characters and voices to avoid stereotypes and tailored content to meet the needs of non-specialist ESL teachers, focusing on commonly mispronounced sounds and providing ample practice opportunities. By addressing the feedback on the Instructional Design component and making necessary revisions to the Content component, the OTPD can
better cater to the diverse needs of the non-specialist ESL teachers and enhance inclusivity in learning outcomes.

**Funding**
This work was supported by the Malaysian Ministry of Higher Education under the Fundamental Research Grant Scheme (FRGS/1/2021/SS10/UPSI/02/9).

**Acknowledgement:** Not Applicable

**Conflicts of Interest:** The authors declare no conflict of interest.

**Authenticity:** This manuscript is an original work.

**Artificial Intelligence Statement:**
During the preparation of this work, the author (Noraini Zulkepli) used [Ask AI] in order to improve readability and language. After using this tool, the author (Noraini Zulkepli) reviewed and edited the content as needed and took full responsibility for the content of the publication.

**About the Authors**
**Dr. Noraini Zulkepli** is a senior lecturer at the Faculty of Languages and Communication, Sultan Idris Education University (UPSI). Her research interests are in the areas of Applied Linguistics and Teacher Education. ORCID: [https://orcid.org/0000-0002-0397-4957](https://orcid.org/0000-0002-0397-4957)

**Assoc. Prof. Dr. Intan Safinas Mohd Ariff Albakri** is a senior lecturer in the Department of English Language and Literature, Faculty of Languages and Communication, Sultan Idris Education University (UPSI). Her research interests are in the areas of Teacher Education and Applied Linguistics. ORCID: [https://orcid.org/0000-0001-5499-1709](https://orcid.org/0000-0001-5499-1709)

**Dr. Puteri Zarina Megat Khalid** is a senior lecturer currently attached to Universiti Pendidikan Sultan Idris, Malaysia. Among her research interests are TESL, discourse analysis, genre analysis, modality analysis, pragmatics, TVET, English for Specific Purposes (ESP), and Systemic Functional Linguistics. ORCID: [https://orcid.org/0000-0002-9296-8662](https://orcid.org/0000-0002-9296-8662)

**Dr. Mohd Faisal Farish Ishak** is a senior lecturer at English Language Teaching Centre (ELTC). He is an experienced lecturer with a demonstrated history of working in the e-learning industry. His field of interests are in the areas of E-Learning, Educational Technology, and Curriculum Development. ORCID: [https://orcid.org/0000-0001-6688-91](https://orcid.org/0000-0001-6688-91)

**References**


Bundrage, C., & Mapson, K. (2022). Design and development of an online professional development course on culturally responsive pedagogy using the ADDIE model. In Society for Information Technology & Teacher Education International Conference (pp. 299-307). Association for the Advancement of Computing in Education (AACE).


Hollis, R. B., & Was, C. A. (2016). Mind wandering, control failures, and social media distractions in online learning. *Learning and Instruction, 42*, 104–112. [https://doi.org/10.1016/j.learninstruc.2016.01.007](https://doi.org/10.1016/j.learninstruc.2016.01.007)


Liru Chen (2024) Transactional Distance and College Students’ Learning Engagement in Online Learning: The Chain Mediating Role of Social Presence and Autonomous Motivation, *Psychology Research and Behavior Management, 2085-2101, DOI: 10.2147/PRBM.S409294*


