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TAMKĪN: A CYBER HEUTAGOGY BASED INNOVATION MODEL TO ENHANCE SELF-EFFICACY IN *MAHĀRAH KALĀM* LEARNING

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Abstract

This study aims to develop and test the effectiveness of the TamkĪn Model based on Cyber Heutagogy which is designed to improve students' self-efficacy, participation, and communicative competence in maharah kalam learning. This research uses Research and Development (R&D) methods combined with a mixed methods approach. The subject of the study is a student of the UNSIQ Arabic Language Education Study Program. Quantitative data was collected using a self-efficacy questionnaire adapted from Bandura's four dimensions, while qualitative data was explored through participatory observation, in-depth interviews, and portfolio documentation. Quantitative data analysis was carried out through descriptive statistical tests, while qualitative data were analyzed using the interactive model of Miles, Huberman, and Saldaña. The results showed that the TamkĪn Model effectively operates through seven systematic phases of ACT-SAIN. These seven phases form a dynamic, iterative, and spiral cycle, where each successfully completed cycle becomes a new mastery experience that strengthens the learner's affirmation at a higher level of confidence. Quantitatively, this model has been proven to improve all dimensions of Bandura's self-efficacy, especially in the dimensions of mastery experience and emotional states with an increase of +1.3. The proportion of students with low self-efficacy decreased drastically from 40% to 8%, while students with high self-efficacy increased to 52%. The integration of the principles of heutagogi, cybergogy, differentiated learning, and authentic assessment in this model also significantly encourages active participation and independent learning. Theoretically, this research contributes to the development of the Cyber Heutagogy framework in Arabic language learning, and practically offers a scalable operational learning design to strengthen students' self-efficacy in Islamic universities.

Keywords: *Self-efficacy, Maharah Kalam, Cyber-Heutagogy, Tamkīn Model, Arabic Language Learning, Differentiated Instruction.*

Abstrak

Penelitian ini bertujuan untuk mengembangkan dan menguji keefektifan Model Tamkīn berbasis Cyber Heutagogy yang dirancang untuk meningkatkan efikasi diri, partisipasi, dan kompetensi komunikatif mahasiswa dalam pembelajaran maharah kalam. Penelitian ini menggunakan metode Penelitian dan Pengembangan (R&D) yang dipadukan dengan pendekatan metode campuran (mixed methods). Subjek penelitian adalah mahasiswa Program Studi Pendidikan Bahasa Arab UNSIQ. Data kuantitatif dikumpulkan menggunakan angket efikasi diri yang diadaptasi dari empat dimensi Bandura, sedangkan data kualitatif digali melalui observasi partisipatif, wawancara mendalam, dan dokumentasi portofolio. Analisis data kuantitatif dilakukan melalui uji statistik deskriptif, sementara data kualitatif dianalisis menggunakan model interaktif Miles, Huberman, dan Saldaña. Hasil penelitian menunjukkan bahwa Model Tamkīn secara efektif beroperasi melalui tujuh fase sistematis ACT-SAIN. Ketujuh fase ini membentuk siklus yang dinamis, iteratif, dan spiral, di mana setiap siklus yang diselesaikan dengan sukses menjadi pengalaman penguasaan (*mastery experience*) baru yang memperkuat afirmasi pembelajar pada tingkat kepercayaan diri yang lebih tinggi. Secara kuantitatif, model ini terbukti meningkatkan seluruh dimensi efikasi diri Bandura, terutama pada dimensi mastery experience dan emotional states dengan peningkatan sebesar +1,3. Proporsi mahasiswa dengan efikasi diri rendah menurun drastis dari 40% menjadi 8%, sedangkan mahasiswa dengan efikasi diri tinggi meningkat menjadi 52%. Integrasi prinsip heutagogi, cybergogy, pembelajaran berdiferensiasi, dan asesmen autentik dalam model ini juga secara nyata mendorong partisipasi aktif dan kemandirian belajar. Secara teoretis, penelitian ini berkontribusi pada pengembangan kerangka Cyber Heutagogy dalam pembelajaran bahasa Arab, dan secara praktis menawarkan desain pembelajaran operasional yang terukur untuk memperkuat efikasi diri mahasiswa di perguruan tinggi Islam.

Kata Kunci: *Efikasi Diri, Mahārah Kalām, Cyber-Heutagogy, Model Tamkīn, Pembelajaran Bahasa Arab, Pembelajaran Berdiferensiasi.*

INTRODUCTION

Arabic speaking proficiency (*mahārah kalām*) constitutes one of the most crucial yet challenging productive competencies for students of Arabic Language Education (PBA). In the context of increasingly complex 21st-century communication demands, mastery of speaking skills requires not only linguistic competence but also psychological readiness and adequate self-confidence.¹ However, empirical evidence shows that many PBA students experience a gap between theoretical knowledge and oral performance. Preliminary classroom observations and interviews with lecturers revealed that many students were reluctant to participate voluntarily in speaking activities

¹ Min J Jee, "Foreign Language Anxiety and Self-Efficacy: Intermediate Korean as a Foreign Language Learners," *Lanaguage Research* 55, no. 2 (2019): 431–56, <https://doi.org/10.30961/lr.2019.55.2.431>; Lindy Woodrow, "A Model of Adaptive Language Learning," *Modern Language Journal* 90, no. 3 (2006): 297–319, <https://doi.org/10.1111/j.1540-4781.2006.00424.x>.

despite demonstrating adequate grammatical knowledge. They tended to hesitate, avoid speaking opportunities, and expressed fear of making mistakes when communicating in Arabic. Although many students possess adequate knowledge of Arabic, preliminary observations indicated that some experienced difficulties in demonstrating their speaking abilities during classroom interaction. This gap is not merely a linguistic issue; rather, its root cause frequently lies in psychological aspects, particularly the low level of students' *self-efficacy* in Arabic speaking contexts.

Preliminary classroom observations and interviews with lecturers revealed that many students were reluctant to participate in speaking activities despite having adequate grammatical knowledge. Students frequently hesitated to express ideas in Arabic because they were afraid of making mistakes, lacked confidence, and experienced speaking anxiety. These findings indicate that the challenges faced by PBA students are not solely linguistic but also psychological, particularly related to self-efficacy. According to Bandura, *self-efficacy* refers to an individual's belief in their capability to successfully perform specific tasks. In Arabic language learning contexts, numerous studies demonstrate a negative relationship between language anxiety and self-efficacy, as well as a positive relationship between *self-efficacy* and speaking performance. Theoretically, Bandura's *self-efficacy* theory and emotion cognition frameworks (such as control-value theory and affective filter hypothesis) explain how self-beliefs influence attention, strategy selection, persistence, and resilience in oral interaction.² Students with high *self-efficacy* tend to take communicative risks, face challenges confidently, and respond constructively to feedback, which ultimately enhances their Arabic speaking performance.³ Previous studies using the Arabic Teaching Efficacy Model (ATEM) indicate that strengthening students' *self-efficacy* contributes to greater mastery of Arabic vocabulary, increased speaking confidence, and improved oral communication performance.⁴ Additionally, variables such as gender differences and perceived competence have been identified as mediating factors influencing the relationship between foreign language anxiety and *self-efficacy*.

² Yuxia Ma, "The Triarchy of L2 Learners' Emotion, Cognition, and Language Performance: Anxiety, Self-Efficacy, and Speaking Skill in Lights of the Emerging Theories in SLA," *Frontiers in Psychology* 13 (2022): 5, <https://doi.org/10.3389/fpsyg.2022.1002492>; Hatice Okyar, "Foreign Language Speaking Anxiety and Its Link to Speaking Self-Efficacy, Fear of Negative Evaluation, Self-Perceived Proficiency and Gender," *Science Insights Education Frontiers* 17, no. 2 (2023): 2715–31, <https://doi.org/10.15354/sief.23.or388>.

³ Heba M Mohamed, "Using Dogme in ELT to Develop Student Teachers' Speaking Skills and Their Self-Efficacy," *Journal of Research in Curriculum Instruction and Educational Technology* 5, no. 3 (2019): 163–86, <https://doi.org/10.21608/jrciet.2019.54147>.

⁴ Riko Andrian and Widiya Yul, "Arabic Teaching Efficacy Model (ATEM): A Language Teaching Model Design," *International Journal of Arabic-English Studies* 23, no. 2 (2023): 269–384, <https://doi.org/10.33806/ijaes.v23i2.468>; Eman Abd Ellateef Mohammed Abd Ellateef, "Utilizing a Strategy Based on the Mastery Learning Approach to Enhance EFL Oral Communication Skills and Self-Efficacy of Secondary Stage Students," *مجلة القراءة والمعرفة* 21, no. 234 (2021): 1–26, <https://doi.org/10.21608/mrk.2021.162656>.

Within the Arabic Language Education Study Program at UNSIQ, this issue appears in a more complex form. Preliminary classroom observations, interviews with lecturers and the head of the study program, as well as students' academic background records revealed that PBA students come from diverse educational backgrounds. Some students graduated from traditional pesantren salafiyah, where Arabic instruction primarily emphasizes grammatical competence and the study of classical Islamic texts (*qirā'ah* and *kitābah*), while others graduated from general secondary schools with relatively limited prior exposure to Arabic. This diversity results in varying levels of prior Arabic competence, confidence, and participation in maharah kalam learning. Students with pesantren backgrounds often possess strong grammatical competence but experience difficulties adapting to communicative learning environments, as their previous learning experiences tend to emphasize cognitive memorization rather than interactive communication. These differences create significant heterogeneity in students' *self-efficacy* within the same classroom context. Some students demonstrate confidence when discussing religious texts but struggle to express spontaneous ideas orally, while others may speak fluently in informal contexts but lack confidence when presenting formally in front of peers.

Within the Arabic Language Education Study Program at UNSIQ, preliminary classroom observations and interviews with lecturers indicated that students come from diverse educational backgrounds, resulting in varying levels of confidence and participation in maharah kalam learning. Many students were reluctant to participate in speaking activities despite possessing adequate grammatical knowledge, suggesting that the challenges were not only linguistic but also psychological. According to Bandura, *self-efficacy* refers to an individual's belief in their capability to successfully perform specific tasks and is developed through four primary sources: mastery experience, vicarious experience, verbal persuasion, and emotional states. These dimensions are highly relevant to maharah kalam because successful speaking depends not only on linguistic competence but also on confidence, prior speaking experiences, constructive feedback, and the ability to manage language anxiety. Previous studies have consistently reported that higher *self-efficacy* is associated with lower foreign language anxiety and better speaking performance in foreign language learning.⁵

On the other hand, rapid advances in digital technology provide significant opportunities to transform Arabic language learning. At PBA UNSIQ, digital platforms such as Google Classroom have been utilized to support learning activities; however, their use remains largely limited to

⁵ Albert Bandura, *Self-Efficacy: The Exercise of Control* (Freeman, 1997), 65.; Do-Hong Kim, Chuang Wang, and Thi N N Truong, "Psychometric Properties of a Self-Efficacy Scale for English Language Learners in Vietnam," *Language Teaching Research* 28, no. 4 (2021): 1412–27, <https://doi.org/10.1177/13621688211027852>.

distributing learning materials and collecting assignments. Preliminary observations and interviews with lecturers indicated that technology has not been systematically integrated to promote learner autonomy, communicative practice, and continuous feedback. Consequently, students have limited opportunities to develop mastery experience and strengthen their *self-efficacy* in maharah kalam. This condition highlights the need for a Cyber Heutagogy approach that integrates digital technology with learner autonomy, reflective learning, and authentic communication experiences to support students' speaking confidence and performance.⁶

In response to these challenges, Cyber Heutagogy provides a pedagogical framework that integrates the principles of cybergogy and heutagogy to support learner-centered Arabic language learning. Cybergogy emphasizes digital learning environments that promote cognitive, social, and emotional engagement through technology-mediated interaction, whereas heutagogy focuses on self-determined learning by encouraging students to take responsibility for planning, implementing, and evaluating their own learning.⁷ By combining these two approaches, Cyber Heutagogy creates learning experiences that encourage learner autonomy, reflective practice, authentic communication, and continuous feedback, all of which are essential for strengthening *self-efficacy* in maharah kalam. Previous studies have shown that learner autonomy and technology-supported learning contribute positively to students' motivation, *self-efficacy*, and communicative competence.⁸ Nevertheless, successful implementation of Cyber Heutagogy requires appropriate instructional scaffolding and institutional support to ensure that learner autonomy develops progressively according to students' readiness and learning context.

The Cyber Heutagogy based instructional design for maharah kalam at PBA UNSIQ is operationalized through the Tamkīn Model, an instructional innovation derived from the Arabic concept of empowerment. The model is grounded in four complementary theoretical foundations: humanistic learning theory (Carl Rogers), differentiated instruction (Tomlinson), cybergogy (Siemens), and heutagogy (Hase & Kenyon).⁹ Through seven systematic phases abbreviated as ACT-

⁶ Chris Kenyon and Stewart Hase, "Moving from Andragogy to Heutagogy in Vocational Education," *Erich* (2001): 1-6.; Bandura, *Self-Efficacy: The Exercise of Control*, 143.

⁷ Stewart Hase and Chris Kenyon, *Self-Determined Learning: Heutagogy in Action* (London: Bloomsbury, 2013), 55; Minjuan Wang and Myunghee Kang, "Cybergogy for Engaged Learning: A Framework for Creating Learner Engagement through Information and Communication Technology," in *Engaged Learning with Emerging Technologies* (Springer, 2006), 225-53.

⁸ Bandura, *Self-Efficacy: The Exercise of Control*, 234.; Lisa Marie Blaschke, "Heutagogy and Lifelong Learning: A Review of Heutagogical Practice and Self-Determined Learning," *The International Review of Research in Open and Distributed Learning* 13, no. 1 (2012): 56-71.

⁹ Carl Ransom Rogers and H Jerome Freiberg, *Freedom to Learn* (Merrill/Macmillan College Publishing Co, 1994), 74.; Carol Ann Tomlinson et al., "Differentiating Instruction in Response to Student Readiness, Interest, and Learning Profile in Academically Diverse Classrooms: A Review of Literature," *Journal for the Education of the Gifted* 27, no. 2-3 (2003): 119-45; George Siemens, "Learning Analytics: The Emergence of a Discipline," *American*

SAIN (Affirmation, Self Concept, Tendency, Self Initiative, Action Note, Implementation, Nurture Confidence), the Tamkīn Model addresses heterogeneous *self-efficacy* by integrating positive affirmation, differentiated learning pathways, learner initiative, experiential practice, and structured confidence reinforcement. With student-centered, adaptive, participatory, and technology-supported characteristics, the Tamkīn Model is designed to address challenges in maharah kalam instruction by integrating linguistic, psychological, and metacognitive dimensions of learning.

Research on *self-efficacy*, maharah kalam, and technology enhanced Arabic language learning has expanded considerably over the past decade. Studies on heutagogy consistently demonstrate that self-determined learning promotes learner autonomy, reflective thinking, capability development, and lifelong learning by enabling students to take responsibility for planning, implementing, and evaluating their own learning processes.¹⁰ In language education, these principles encourage learners to become active participants rather than passive recipients of knowledge.

With the rapid advancement of digital technology, heutagogical principles have increasingly been implemented through online and technology supported learning environments. Digital platforms enable learners to access authentic learning resources, collaborate with peers, receive continuous feedback, and engage in reflective learning beyond classroom boundaries. This development has led to the emergence of Cyber Heutagogy, which integrates learner autonomy with digitally mediated learning experiences.¹¹

Meanwhile, Cybergogy complements this perspective by emphasizing cognitive, emotional, and social engagement within digital learning ecosystems.¹² However, most previous studies have examined either digital engagement (Cybergogy) or learner autonomy (Heutagogy) separately. Empirical studies integrating these perspectives into a comprehensive Cyber Heutagogy framework for maharah kalam learning remain limited, particularly those that explicitly address heterogeneous *self-efficacy* and provide an operational instructional model.

Furthermore, previous studies on Arabic language learning have predominantly focused on integrating language skills or applying technology to improve learning outcomes. Few studies have specifically designed a Cyber Heutagogy based instructional model that systematically integrates learner autonomy, digital engagement, differentiated learning, and *self-efficacy* development in maharah kalam. This gap provides the rationale for developing the Cyber-Heutagogy-based Tamkīn

Behavioral Scientist 57, no. 10 (2013): 1380–1400; Kenyon and Hase, “Moving from Andragogy to Heutagogy in Vocational Education,” 3.

¹⁰ Hase and Kenyon, *Self-Determined Learning: Heutagogy in Action*, 67.

¹¹ Blaschke, “Heutagogy and Lifelong Learning: A Review of Heutagogical Practice,” 65.

¹² Wang, “Cybergogy for Engaged Learning,” 234.

Model as an instructional innovation to strengthen students' *self-efficacy* and communicative competence in Arabic language learning.

Based on this mapping, a research gap is identified: no previous study has simultaneously integrated responses to heterogeneous *self-efficacy*, the Cyber Heutagogy framework, and an operational instructional model for *maharah kalam* within the context of Arabic Language Education in Indonesian Islamic higher education. This gap constitutes the novelty of the present study through the development of the Cyber Heutagogy based Tamkīn Model.

METHOD

This study employed a Research and Development (R&D) design adapting the simplified Borg and Gall model, integrated with a Mixed Methods approach using a Concurrent Embedded design.¹³ The R&D framework was selected to systematically design, develop, and evaluate the Cyber-Heutagogy-based Tamkīn Model, while the mixed methods approach enabled a comprehensive understanding of both the measurable outcomes and the nuanced processes of its implementation in *maharah kalam* learning at the Arabic Language Education Program (PBA), Universitas Sains Al-Qur'an (UNSIQ).

The development process followed a simplified Borg and Gall framework, condensed into four main stages: (1) preliminary research and information collecting, (2) initial model planning and development (designing the operational ACT-SAIN phases), (3) field testing, and (4) final product revision.¹⁴ During the field testing stage, both primary and secondary data were collected to evaluate the model's efficacy and practicality. Primary data were obtained from 32 PBA students enrolled in the *maharah kalam* course, one lecturer teaching the course, and the Head of the PBA Study Program, all selected through purposive sampling. Secondary data consisted of course documents, including the Semester Learning Plan (RPS), students' speaking portfolios, digital logbooks, assessment rubrics, self-reflection reports, peer-assessment records, and learning videos.

Data collection utilized a concurrent mixed-method strategy, gathering quantitative and qualitative data simultaneously. To measure the model's effectiveness, quantitative data were collected using a 20-item self-efficacy questionnaire with a five-point Likert scale (1 = strongly disagree to 5 = strongly agree). Adapted from Kim, Wang, and Truong (2021) and grounded in Bandura's four dimensions (mastery experience, vicarious experience, verbal persuasion, and

¹³ John W. Creswell and Vicki L. Plano Clark, *Designing and Conducting Mixed Methods Research*, 3rd ed. (Thousand Oaks, CA: Sage Publications, 2018), 102.

¹⁴ Walter R. Borg and Meredith D. Gall, *Educational Research: An Introduction*, 5th ed. (New York: Longman, 1989), 783.

emotional states), the questionnaire was administered before and after the implementation (pre-test and post-test).¹⁵ Concurrently, qualitative data were gathered through participatory observation to examine the implementation of the seven ACT-SAIN learning phases, semi-structured interviews to explore participants' experiences, and documentation analysis to support observational findings.

Data analysis was conducted sequentially according to the data type. Quantitative data from the questionnaire were analyzed using descriptive statistics to calculate the percentage and magnitude of self-efficacy improvement. Qualitative data were analyzed using the interactive model of Miles, Huberman, and Saldaña (2014),¹⁶ consisting of four iterative stages: data condensation, data display, conclusion drawing, and verification. These stages were conducted continuously to contextualize the numerical findings. Finally, the trustworthiness and validity of the research were established through source triangulation (students, lecturer, and head of the program), methodological triangulation (observation, interviews, documentation, and questionnaire), and member checking to confirm the accuracy of the researcher's interpretations.¹⁷

RESULT AND DISCUSSION

RESULTS

Initial Profile of PBA UNSIQ Students' Self-Efficacy

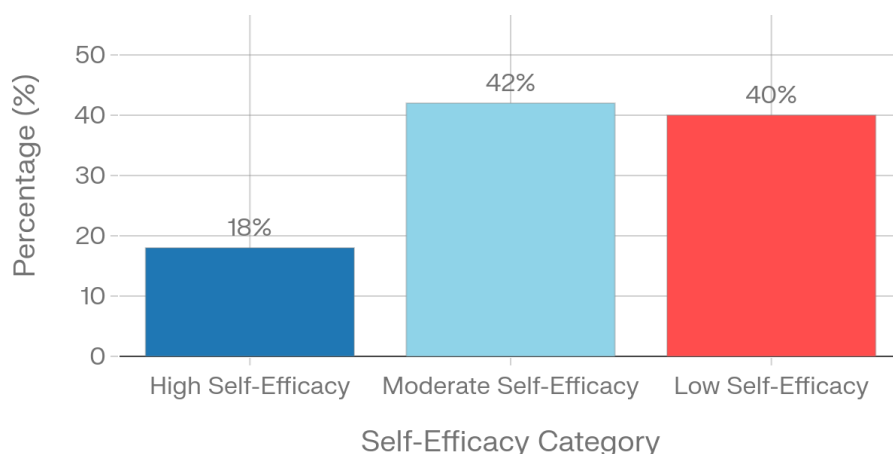
Based on the results of the initial *self-efficacy* questionnaire (pre-implementation) administered to 50 PBA UNSIQ students enrolled in the maharah kalam course, a significant heterogeneity in students' *self-efficacy* levels was identified. The data indicate that 40% of students were categorized as having low self-efficacy, 42% demonstrated moderate self-efficacy, and only 18% were classified as having high self-efficacy. These findings suggest that the majority of students (82%) did not yet possess adequate confidence in their Arabic speaking performance prior to the implementation of the Tamkīn Model.

This distribution confirms that students' readiness to engage in communicative Arabic speaking activities remains uneven, highlighting the need for an instructional design that accommodates diverse psychological readiness levels. The findings also reinforce the assumption that *self-efficacy* constitutes a critical factor influencing students' willingness to participate actively in maharah kalam learning.

¹⁵ Albert Bandura, *Self-Efficacy: The Exercise of Control* (New York: W. H. Freeman, 1997), 154.

¹⁶ Matthew B. Miles, A. Michael Huberman, and Johnny Saldaña, *Qualitative Data Analysis: A Methods Sourcebook*, 3rd ed. (Thousand Oaks, CA: Sage Publications, 2014), 121.

¹⁷ Yvonna S. Lincoln and Egon G. Guba, *Naturalistic Inquiry* (Beverly Hills, CA: Sage Publications, 1985), 314.



This heterogeneity is closely related to the diversity of students' educational backgrounds. Students from pesantren salafiyah backgrounds generally possess strong grammatical competence (particularly in qirā'ah and kitābah); however, they tend to demonstrate lower *self-efficacy* in oral communication practices due to their prior exposure to passive and non-communicative instructional approaches. In contrast, a smaller group of students who are accustomed to communicative learning environments tend to exhibit higher self-efficacy, despite having relatively more limited grammatical competence. This finding is consistent with the study conducted by Azzahra and Ilmiani, which demonstrates that low *self-efficacy* constitutes a major barrier to PBA students' participation in maharah kalam practice.

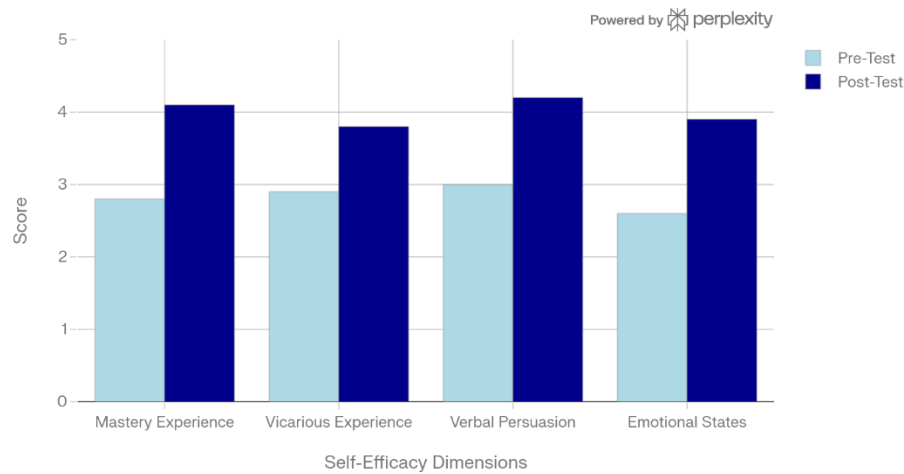
Table 1. presents the initial profile of students' *self-efficacy* across Bandura's four dimensions prior to the implementation of the model.

<i>Self-efficacy</i> Dimension (Bandura)	Initial Average Score (Scale 1–5)	Category
Mastery Experience (Success Experience)	2.8	Medium–Low
Vicarious Experience (Model Observation)	2.9	Medium–Low
Verbal Persuasion (Verbal Persuasion)	3.0	Medium
Emotional States (Emotional States)	2.6	Low

Source: Pre-Implementation *Self-efficacy* Questionnaire of PBA UNSIQ Students (N = 50)

The lowest score was found in the emotional states dimension, with an average score of 2.6, reflecting a high level of speaking anxiety and psychological discomfort when students were required to speak in Arabic. This result reinforces the theoretical argument that pedagogical interventions designed for maharah kalam should address affective and psychological dimensions, rather than focusing solely on linguistic aspects.

Comparison of Self-Efficacy Pre vs Post (Scale 1-5)



Cyber Heutagogy Based Tamkīn Model Design

The Tamkīn Model was developed as a direct response to the heterogeneous *self-efficacy* profile identified in the preceding findings. The model is grounded in four complementary theoretical foundations: humanistic learning theory (Carl Rogers), differentiated instruction (Tomlinson), Cybergogy (Siemens), and Heutagogy (Hase & Kenyon). The integration of these four foundations results in a Cyber Heutagogy approach that simultaneously addresses psychological needs (affective safety and self-efficacy), pedagogical needs (differentiation and learner autonomy), and technological needs (active participation within digital learning ecosystems).

Operationally, the Tamkīn Model is implemented through seven systematic phases abbreviated as ACT-SAIN (Affirmation, Self-Concept, Tendency, Self-Initiative, Action Note, Implementation, Nurture Confidence). These seven phases form a dynamic, iterative, and spiral cycle, in which each successfully completed cycle becomes a new mastery experience that reinforces subsequent affirmation at a higher level of learner confidence.

Phase	Lecturer Activities	Student Activities	Output/Instruments
A – Affirmation	Ice-breaking, motivational video, positive affirmations	Writing & reading aloud speaking ability affirmations	Affirmation sheets, initial reflection
C – Self Concept	Discussion of learning barriers, mapping initial abilities	Completing self-assessment & learning style profile (V-A-K)	Self-assessment sheets, learning style profiles
T – Tendency	Introducing types of speaking performance	Choosing project type based on interest (speech,	Project selection form, learning contract

S – Self Initiative	Guiding independent learning resource search	dialogue, vlog, MC, etc.) Collecting materials, preparing script/outline	Draft script/outline, list of learning resources
A – Action Note	Workshop practice, small group mentoring	Recording progress in digital logbook (Google Docs/Blog)	Project logbook (schedule, progress, challenges)
I – Implementation	Facilitating Hiwar, debates, synchronous/asynchronous sessions via LMS	Performing speaking activities in class & online platform	Performance videos, assessment rubrics
N – Nurture Confidence	Showcasing best videos, appreciation, final reflection	Self-reflection, peer assessment, commitment pledge	Final <i>self-efficacy</i> questionnaire, speaking portfolio

Source: Tamkīn Model Design, PBA UNSIQ

This design consistently integrates the principle of gradual scaffolding. In the initial phases (A and C), the lecturer plays a more active role in providing psychological support and positive affirmation. In the intermediate phases (T, S, and A), students progressively develop greater autonomy in designing and implementing their own learning plans. In the final phases (I and N), students perform independently, while the lecturer assumes the role of facilitator and confidence enhancer. This approach is consistent with the perspective of Zarandi and Rahbar (2016), who argue that structured and progressive scaffolding has been proven effective in improving foreign language speaking proficiency.

Implementation of the Tamkīn Model: Field Observations

The results of participatory observation during the implementation of the Tamkīn Model in maharah kalam classes at PBA UNSIQ revealed significant instructional dynamics. In the Affirmation phase, lecturers began each session with a brief motivational activity (5–10 minutes), including the presentation of public speaking videos featuring successful PBA alumni as well as Arabic-language ice-breaking activities. The classroom atmosphere, which was initially tense and passive, gradually became more relaxed and participatory. Students who had previously avoided verbal interaction in Arabic began to demonstrate greater confidence in producing short spoken utterances.

The Tendency phase produced noteworthy findings, as students exhibited diverse learning preferences. Most students from pesantren backgrounds selected project formats such as khitbah (religious speech) or taqdīm al-qīṣṣah (storytelling), whereas students from general educational

backgrounds tended to prefer vlog production, daily conversation dialogues, or performing roles as Arabic-speaking masters of ceremony (MC). This diversity of project selection provides empirical evidence of the effectiveness of differentiated instruction principles in addressing heterogeneous learning preferences and interests.

The Implementation phase was conducted through both synchronous and asynchronous learning activities. Synchronous activities included live hiwar (dialogue) sessions, individual presentations, and group role-plays conducted in the classroom. Meanwhile, asynchronous activities involved the submission of video vlogs and podcasts through the institutional Learning Management System (LMS), accompanied by peer feedback from classmates. Additionally, the use of the Zoom platform for video conferencing sessions with native speakers or alumni was incorporated in several meetings, providing authentic communication experiences that extended beyond the physical classroom environment.

Comparison of Self-efficacy Before and After Implementation

After the completion of one full cycle of the Tamkīn Model, the *self-efficacy* questionnaire was administered again to the students (post-implementation). The results indicate a consistent improvement across all dimensions of Bandura's *self-efficacy* construct.

Self-efficacy Dimension	Pre-Test Score (Scale 1–5)	Post-Test Score (Scale 1–5)	Improvement
Mastery Experience	2.8	4.1	+1.3
Vicarious Experience	2.9	3.8	+0.9
Verbal Persuasion	3.0	4.2	+1.2
Emotional States	2.6	3.9	+1.3

Source: *Self-efficacy* Questionnaire of PBA UNSIQ Students Before and After the Implementation of the Tamkīn Model (N = 50)

The greatest improvement was found in the mastery experience dimension (+1.3) and emotional states (+1.3). This indicates that students experienced tangible success in progressively structured speaking tasks, while also demonstrating a significant reduction in speaking anxiety. These findings are consistent with Bandura's *Self-efficacy* Theory, which identifies mastery experience as the most powerful and influential source of *self-efficacy*. The distribution of students across *self-efficacy* categories also shifted considerably: the proportion of students in the low *self-efficacy* category decreased from 40% to 8%, while the proportion in the high *self-efficacy* category increased from 18% to 52%.

Maharah Kalam Performance: Authentic Assessment Results

The final assessment was conducted through a student performance showcase using a maharah kalam assessment rubric that measured six aspects: (1) fluency, (2) accuracy of grammatical structure, (3) accuracy of makhraj/pronunciation, (4) expression and confidence, (5) performance duration, and (6) learner initiative in determining the presentation topic. The results of the portfolio assessment and video performance indicated consistent improvement across all aspects, with the most notable progress observed in expression and confidence, as well as learner initiative two dimensions that are directly associated with *self-efficacy* and learner autonomy.

Tamkīn Model Maharah Kalam Assessment Framework

Assessment Aspect	Weight	Instrument
ACT-SAIN Logbook Progress	20%	Daily digital logbook
Project Script/Outline	15%	Speaking script draft
Language Structure Accuracy	20%	Assessment rubric
Pronunciation/Makhraj Accuracy	15%	Assessment rubric
Expression & Self-Confidence	15%	Rubric + peer assessment
Final Performance	15%	Video portfolio

Source: Tamkīn Assessment Scheme, PBA UNSIQ

The assessment was conducted in a formative and continuous manner, in which students received regular feedback at each phase, enabling them to reflect on and improve their performance promptly. This assessment for learning approach differs fundamentally from traditional summative assessment, which primarily measures final outcomes without adequately considering the learning process. This strategy has been shown to promote double-loop learning, whereby students evaluate not only what has been achieved but also how their learning strategies need to be revised and improved.

DISCUSSION

The Relevance of Cyber Heutagogy in Addressing Heterogeneity in Self-Efficacy

Research findings indicate that differences in *self-efficacy* among PBA students are not merely minor variations, but rather structural challenges that necessitate flexible instructional design. The Tamkīn model with differentiation (Tomlinson) promotes a personalized pathway that allows students with low *self-efficacy* to receive psychological scaffolding through the Affirmation and Self Concept phases, while those with high *self-efficacy* are encouraged to explore more complex initiatives in the Self-Initiative and Implementation phases. This thesis aligns with Tomlinson's

argument that differentiation does not mean explicitly creating different programs for each student, but rather providing sufficient flexibility so that every student can follow a path toward the same competencies. The emphasis on differentiation as flexibility in learning pathways to achieve equivalent competency goals is supported by the literature on curriculum differentiation, which highlights flexibility as the core of differentiation.¹⁸ One point to note: various sources highlight that implementing differentiation can place demands on resources, time spent on tasks, and the role of educators in designing activities that are varied yet still aligned with uniform learning objectives. Thus, the Tamkīn approach, which incorporates differentiation, has the potential to address barriers to *self-efficacy* while maintaining the cohesion of curriculum objectives.

The integration of heutagogy into this design contributes more deeply than mere self-directed learning. Knowles positions the instructor as the designer of learning objectives, but Hase and Kenyon position students as the primary architects of their own learning experiences. In the context of maharah kalam (argumentation/speech skills), students do not merely follow the instructor's instructions but actively determine the themes, formats, and speaking practice strategies that are most meaningful to them. This aligns with the idea that learning autonomy enhances commitment and intrinsic motivation through self-control over the learning experience. The literature on heutagogy explicitly emphasizes the shift of control over learning into the hands of students as a prerequisite for sustained engagement.¹⁹ Furthermore, Self-Determination Theory explains that increased commitment and intrinsic motivation are rooted in autonomy, competence, and relatedness. In other words, learning designs that provide selective yet guided autonomy can enhance students' sustained engagement in learning. Empirical evidence regarding the relationship between intrinsic motivation, learning autonomy, and learning engagement is supported by the SDT literature and heutagogical studies.²⁰

In line with the broader literature on the role of technology in language learning engagement, the integration of LMS, video conferencing, social media, and speech transcription tools can expand access to speaking practice, expedite feedback, and build online learning communities. Various studies show that digital technology strengthens learners' commitment and participation in second

¹⁸ Ibnu Chudzaifah and Afroh N Hikmah, "Educational Revolution in the Digital Era: Integrating Technology in the Independent Curriculum," *Journal of Quality Assurance in Islamic Education (Jqaie)* 4, no. 1 (2024): 38–49, <https://doi.org/10.47945/jqaie.v4i1.1359>; Eldaa C Wenno, "21st CENTURY IN GERMAN LANGUAGE LEARNING : IMPLEMENTATION OF CYBERGOGY CONCEPT," *Ijlecr - International Journal of Language Education and Culture Review* 7, no. 2 (2021): 122–35, <https://doi.org/10.21009/ijlecr.072.12>.

¹⁹ Sartika Odotu and Khoiriyah Khoiriyah, "Students' Preference of Speaking Activities in Online ESP Classes," *Al-Ishlah Jurnal Pendidikan* 15, no. 2 (2023): 1310–20, <https://doi.org/10.35445/alishlah.v15i2.2644>; Samantha M Norton, "Lessons Learned From COVID-19 Remote Instruction: Implications for Future Educational Practices," *Eric* (2024): 83, <https://doi.org/10.12794/metadc2356178>.

²⁰ Norton, "Lessons Learned From COVID-19 Remote Instruction," 73.; Odotu, "Students' Preference of Speaking Activities in Online ESP Classes," 1315.

language (L2) learning contexts through digital media-based learning and collaborative online practices.²¹ The synergy between Tamkīn differentiation, Hase & Kenyon's principles of heutagogy, and the dimensions of cybergogy creates a learning ecosystem that is responsive to heterogeneity in *self-efficacy* while fostering intrinsic commitment and engagement. Differentiation provides personalized pathways for all students; heutagogy grants students the appropriate autonomy to become architects of their own learning experiences; and cybergogy integrates digital infrastructure that facilitates flexible, measurable, and collaborative speaking practice.²² These three components are mutually reinforcing: flexibility in differentiation is supported by heutagogical autonomy, which in turn is mediated by a digital platform for speaking practice and contextual feedback. As a result, students' commitment and intrinsic motivation increased significantly, consistent with SDT's claims regarding the prerequisites for sustained learning engagement. In the context of maharah kalam, changes in learning behavior (e.g., being more proactive in choosing practice topics, formats, and strategies) are reflected in improved quality of speaking practice and consistency in online Arabic language practice.

In practice, the integration of videoconferencing, LMS, and social media enables students to practice speaking with faster and more frequent feedback, as well as to build a globally connected community of practice. Previous literature also emphasizes the benefits of using videoconferencing to enhance affective and cognitive engagement, although challenges such as distractions and internet access constraints still need to be addressed through adaptive and supportive instructional design.²³ In general, the literature review indicates that differentiation, learner autonomy, and technology integration consistently contribute to increased learner engagement and intrinsic motivation in the context of Arabic language learning and language learning more broadly. However, some studies caution that overly extensive differentiation can increase the design burden on educators and require additional resources for effective implementation. These differing perspectives simply underscore the

²¹ Harris R Akhiruddin, Anas Ahmadi, and Resdianto P Raharjo, "Pemanfaatan Cerita Interaktif Digital Sebagai Media Pembelajaran Bahasa Yang Inovatif," *Judika (Jurnal Pendidikan Unsika)* 12, no. 2 (2024): 193–208, <https://doi.org/10.35706/judika.v12i2.11574>; Fajlay Rabbi, S M A Islam, and Jamil Hossain, "Enhancing English Language Learning in Tertiary Education Through Blended Approaches: A Bangladesh Perspective," *Indonesian Journal of Education Research (Ijoer)* 5, no. 1 (2024): 1–9, <https://doi.org/10.37251/ijoe.v5i1.745>; Jiang Xiaxia et al., "Does Instructors' and Students' On-Camera Presence Enhance Learning?," *Journal of Computer Assisted Learning* 41, no. 1 (2025), <https://doi.org/10.1111/jcal.13122>.

²² Blaschke, "Heutagogy and Lifelong Learning: A Review of Heutagogical Practice," 64.; Wang, "Cybergogy for Engaged Learning," 245.; Carol Ann Tomlinson, *The Differentiated Classroom: Responding to the Needs of All Learners* (Alexandria: Ascd, 2014), 80.

²³ Metaria, Siti Muniroh, and Nanang Zubaidi, "Enhancing Students' Engagement in FLSP Class: The Impact of Nearpod," *Celtic a Journal of Culture English Language Teaching Literature and Linguistics* 11, no. 1 (2024): 39–55, <https://doi.org/10.22219/celtic.v11i1.33329>; Ali Erarslan, "English Language Teaching and Learning During Covid-19: A Global Perspective on the First Year," *Journal of Educational Technology and Online Learning* 4, no. 2 (2021): 349–67, <https://doi.org/10.31681/jetol.907757>.

need for an implementation framework that strikes a balance between personalization, autonomy, and institutional capacity to provide adequate facilitation support.²⁴

Furthermore, the literature on CoI and online community-based learning indicates that the success of online engagement is also influenced by the quality of social, cognitive, and constructive presence, as well as factors such as infrastructure support, digital literacy, and instructors' readiness to utilize technology. In the context of maharah kalam, social presence and the activity of the online learning community are important factors that need to be optimized through CoI-based learning design and online collaborative strategies.²⁵

The Dynamics of Self-efficacy in the ACT-SAIN Cycle

The implementation of the ACT-SAIN cycle maps out how the three main phases Affirmation, Implementation, and Nurture Confidence work together to activate the dimensions of *self-efficacy* according to Bandura's framework. The Affirmation phase directly influences verbal persuasion and emotional states through positive affirmations provided by instructors, which have been shown to reduce speaking anxiety and enhance a sense of psychological safety in the classroom, thereby boosting students' self-confidence in their academic abilities. Empirical studies in the context of higher education show that educator affirmation interventions increase academic engagement and foster a more positive self-perception of students' academic abilities.²⁶ This evidence is consistent with the literature, which highlights the role of verbal persuasion and emotion regulation in enhancing students' self-efficacy.²⁷ In addition, affirmation can boost self-confidence by fostering positive feelings toward the learning process, which is consistent with the observed increase in participation and a sense of academic security in a classroom environment supported by instructors.

The Implementation phase serves as the primary driver of growth in the mastery experience dimension, which Bandura explicitly identified as the strongest source of self-efficacy. When students successfully complete a presentation, vlog, or dialogue in Arabic whether in front of a live audience or via a digital platform they experience concrete success that strengthens their confidence in their abilities. Literature findings indicate that the experience of successfully completing challenging tasks

²⁴ Wenno, "21st CENTURY IN GERMAN LANGUAGE LEARNING: IMPLEMENTATION OF CYBERGOGY CONCEPT"; Norton, "Lessons Learned From COVID-19 Remote Instruction: Implications for Future Educational Practices."

²⁵ Rabbi, Islam, and Hossain, "Enhancing English Language Learning in Tertiary Education Through Blended Approaches: A Bangladesh Perspective"; Xiaxia et al., "Does Instructors' and Students' On-Camera Presence Enhance Learning?"

²⁶ Geoffrey L Cohen et al., "Reducing the Racial Achievement Gap: A Social-Psychological Intervention," *Science* 313, no. 5791 (2006): 1307–10.

²⁷ Dale H Schunk and Maria K DiBenedetto, "Motivation and Social Cognitive Theory," *Contemporary Educational Psychology* 60 (2020): 101832.

gradually increases *self-efficacy* through repeated and measurable mastery experiences. Meanwhile, observing peers' achievements in various forms of Arabic communication facilitates a vicarious learning experience from role models, reinforcing the belief that "if my peer can do it, so can I." Empirical evidence regarding peer learning and peer showcases in language learning contexts demonstrates an increase in the vicarious experience dimension in tandem with an overall increase in *self-efficacy*. A 0.9-point increase in the vicarious experience dimension during the Tamkīn cycle provides numerical confirmation of the effectiveness of peer learning and peer showcase activities in this context.

The Nurture Confidence phase serves to cultivate *self-efficacy* into an internal, sustainable, and enduring belief. The sequential self-comparison strategy which involves comparing students' first and final performance videos provides concrete empirical evidence of personal progress. This approach is known as psychometric reinforcement of self-efficacy,²⁸ explains how ongoing self-assessment of one's performance strengthens *self-efficacy* through data-driven feedback and evidence of progressive performance. This cycle does not stop at phase N; its impact leads to a continuous spiral of competence as the next phase, A (Affirmation), begins at a higher level, resulting in continuous improvement across all dimensions of *self-efficacy* and maintaining the momentum of self-improvement in a synergistic manner. This finding aligns with the literature on continuous learning within intervention cycles based on self-reflection and progressive feedback.

Affirmation promotes verbal persuasion and positive emotional states by reducing speaking anxiety and increasing psychological safety, thereby making students more open to academic challenges and more confident in their verbal abilities in Arabic.²⁹ Empirical evidence regarding the effects of educators' affirmation on academic engagement and self-perception consistently supports this claim. The program intensively stimulates mastery experiences through real-world tasks (presentations, vlogs, Arabic dialogues) and through peer observation (vicarious experience). According to Bandura, both of these pathways are powerful sources of self-efficacy, with mastery experience serving as the primary determinant and vicarious experience acting as an additional reinforcer through the role modeling of classmates. Nurture Confidence transforms *self-efficacy* into internalized confidence through psychometric reinforcement and continuous evaluation of progress driven by empirical feedback, thereby triggering a recurring spiral of competence that escalates to higher levels in subsequent cycles.

²⁸ Kim, "Psychometric Properties of a Self-Efficacy Scale for English Language," 1417.

²⁹ Jenette Villegas-Puyod et al., "The Role of Teacher Support, Classmate Support, and Self-Efficacy in Reducing Speaking Anxiety among University Students Using English as a Foreign Language.," *Human Behavior, Development & Society* 21, no. 3 (2020): 60.

The causal relationship between the ACT-SAIN phases and the *self-efficacy* dimension is relative and contextual. Some sources emphasize that the effects of affirmation may vary depending on the classroom context, institutional culture, and student characteristics; therefore, moderating variables must be taken into account in practical implementation. While mastery experience is the primary determinant, maximum effects can be achieved when the vicarious experience phase is integrated synergistically for example, through structured peer learning designs and transparent assessments of peers' progress. A continuous spiral of competencies requires a continuous assessment design that not only measures final outcomes but also tracks changes in *self-efficacy* throughout the cycle, so that learning can be dynamically adjusted to maintain the momentum of improvement.

The Role of Differentiation and Authentic Assessment

Tamkīn outlines the principles of differentiation, which encompass four core elements: content, process, product, and learning environment, as a response to the diversity in students' readiness, interests, and learning profiles.³⁰ In the context of the Tamkīn cycle, content differentiation refers to the selection of speaking topics relevant to students' interests and contexts; process differentiation involves students' freedom to choose learning resources and practice strategies; while product differentiation is reflected in a variety of final performance formats (speeches, dialogues, vlogs, podcasts, emceeing, etc.) that reflect the learner autonomy developed through the Tamkīn model.³¹ The environmental aspect emphasizes that the learning environment must support flexibility and diverse access, so that students feel safe to innovate in the media they use to communicate in Arabic and the foreign languages they are learning.³²

The focus on authentic assessment is a key element of Tamkīn: logbooks, portfolios, self-reflection, and peer assessment shift the focus from merely measuring outcomes (assessment of learning) to assessment that fosters the learning process (assessment for learning) and learning through feedback (assessment as learning). This is consistent with the literature on learning assessment, which emphasizes a shift toward evaluation that focuses on the learning process and

³⁰ Bart A D Moor et al., "Normal Mode Analysis in Zeolites: Toward an Efficient Calculation of Adsorption Entropies," *Journal of Chemical Theory and Computation* 7, no. 4 (2011): 1090–1101, <https://doi.org/10.1021/ct1005505>.

³¹ Munira S A Siyabi and Dalal A A Shekaili, "Teachers' Perceptions of Customizing Students' Learning Through Differentiated Instruction at a Tertiary Level," *Arab World English Journal* 12, no. 1 (2021): 374–87, <https://doi.org/10.24093/awej/vol12no1.25>; Amalia Potot et al., "Differentiated Instruction as Strategy in Improving Reading Comprehension," *Journal of English Language Teaching and Applied Linguistics* 5, no. 4 (2023): 113–28, <https://doi.org/10.32996/jeltal.2023.5.4.12>.

³² Imas Suryati, Koesoemo Ratih, and Maryadi Maryadi, "How Can Teachers Tailor Success? Innovative Strategies for Content, Process, and Product in EFL Classrooms," *Veles Voice of English Language Education Society* 8, no. 1 (2024), <https://doi.org/10.29408/veles.v8i1.24451>.

students' self-reflection.³³ Within this framework, Argyris and Schön (double-loop learning) provide a theoretical foundation stating that evaluation should assess assumptions, policies, and learning processes not just the final results so that learning becomes a spiral of continuous improvement.³⁴

Content differentiation in Tamkīn is achieved by selecting discussion topics that are relevant to students' interests, cultural backgrounds, and contexts. This selection of topics not only enhances the relevance of Arabic language learning but also increases opportunities for active participation and cognitive engagement. According to Tomlinson, the concept of content differentiation involves adapting materials so that they are accessible to all students based on their readiness, while taking into account each student's interests and learning profile.³⁵ The application of this principle in Tamkīn is consistent with findings that suggest content variety enhances motivation and engagement, especially when the content is tailored to individual needs (readiness, interest, learning profile).³⁶ In addition, content differentiation is expected to support the achievement of Arabic language goals through contextual understanding that is more closely aligned with real-world communication practices, as discussed in the literature on differentiating content for language learning.³⁷

Process differentiation emphasizes students' freedom to choose learning resources and practice strategies that align with their learning styles, as well as access to a variety of resources. The process concept in DI emphasizes that how learners engage in the learning process (methods, activities, pace) can be adapted to optimize cognitive and affective processes. Tomlinson emphasizes that process differentiation involves flexibility in how students understand concepts, so that they can explore the material through the pathways that are most effective for them.³⁸ In Tamkīn, options such as task-

³³ Richard Griffin, "Workplace Learning Evaluation: A Conceptual Model and Framework," *Industrial and Commercial Training* 43, no. 3 (2011): 172–78, <https://doi.org/10.1108/00197851111123631>; Tuan N Bui, "An Investigation of College Graduates' and Employers' Perceptions of Graduates' Social Skills Performance in Vietnam," n.d., <https://doi.org/10.12794/metadc1833541>; Raanan Lipshitz, "Chic, Mystique, and Misconception," *The Journal of Applied Behavioral Science* 36, no. 4 (2000): 456–73, <https://doi.org/10.1177/0021886300364004>.

³⁴ David J Bochman and Michael Kroth, "Immunity to Transformational Learning and Change," *The Learning Organization* 17, no. 4 (2010): 328–42, <https://doi.org/10.1108/09696471011043090>; Lipshitz, "Chic, Mystique, and Misconception," 465.

³⁵ Omid Tajik, Shagofah Noor, and Jawad Golzar. "Investigating Differentiated Instruction and the Contributing Factors to Cater EFL Students' Needs at the Collegial Level." *Asian-Pacific Journal of Second and Foreign Language Education* 9, no. 1 (2024): 1-19, <https://doi.org/10.21203/rs.3.rs-3513269/v1>; Siyabi and Shekaili, "Teachers' Perceptions of Customizing Students' Learning Through Differentiated Instruction at a Tertiary Level," 374; Ayman Abdelhakim et al., "Evaluating Cabin Crew Food Safety Training Using the Kirkpatrick Model: An Airlines' Perspective," *British Food Journal* 120, no. 7 (2018): 1574–89, <https://doi.org/10.1108/bfj-07-2017-0395>.

³⁶ Carol Ann Tomlinson et al., "Differentiating Instruction," 135.

³⁷ Akem S Ojong, "Unraveling the Efficacy of Differentiated Instruction in Enhancing Second Language Acquisition: A Comprehensive Review and Future Directions," *International Journal of Linguistics Literature and Translation* 6, no. 6 (2023): 75–82, <https://doi.org/10.32996/ijllt.2023.6.6.8>; Shwu-Ru Liou et al., "Effectiveness of Differentiated Instruction on Learning Outcomes and Learning Satisfaction in the Evidence-based Nursing Course: Empirical Research Quantitative," *Nursing Open* 10, no. 10 (2023): 6794–6807, <https://doi.org/10.1002/nop2.1926>.

³⁸ Potot et al., "Differentiated Instruction as Strategy in Improving Reading Comprehension," 120; Dzmitry H Zaitsau et al., "Thermal Decomposition of 1-Ethyl-3-Methylimidazolium Acetate," *Journal of Molecular Liquids* 390 (2023): 123093, <https://doi.org/10.26434/chemrxiv-2023-68b5p>.

based exercises, presentations in various formats, or multimodal dialogues enable students to independently connect theory with practice, strengthening their readiness to demonstrate authentic performance. Studies on DI indicate that process flexibility particularly through adaptive grouping and activity adaptation has a positive impact on engagement, motivation, and overall second language acquisition (SLA).³⁹

The production of diverse outputs (speeches, dialogues, vlogs, podcasts, MC performances, etc.) serves as a tangible reflection of the learning autonomy developed through Tamkīn. The differentiation of these outputs allows students to choose how they demonstrate their understanding and Arabic language skills, which ultimately strengthens their sense of agency and ownership over their learning. Tomlinson and his colleagues emphasize that products are the means by which students demonstrate their understanding of learning objectives through various forms of assessment, explicitly acknowledging that product variation is an integral part of the learning process not merely a cosmetic variation.⁴⁰ This emphasis on dynamic output is also consistent with the literature on English as a second language classrooms, which indicates that variation in output is closely related to students' ability to apply their knowledge in real-world contexts and solve problems creatively.⁴¹

The learning environment must address the need for differentiation by providing access to diverse resources, sufficient time, and consistent instructional support. Within Tomlinson's framework, the learning environment is a key factor influencing the affective domain, enabling students to feel safe and motivated to take the initiative in learning Arabic. DI emphasizes that the learning environment should be flexible, inclusive, and responsive to students' readiness, interests, and learning profiles. Designing an environment that supports differentiation also strengthens the implementation of authentic assessment through logbooks, portfolios, and self-reflection, which allow students to continuously reflect on their progress.⁴²

Tamkīn emphasizes authentic assessment that includes logbooks, portfolios, self-reflection, and peer assessment, so that evaluation assesses not only the final quality of speaking performance but

³⁹ Bui, "An Investigation of College Graduates' and Employers' Perceptions of Graduates' Social Skills Performance in Vietnam"; Liou et al., "Effectiveness of Differentiated Instruction on Learning Outcomes and Learning Satisfaction in the Evidence-based Nursing Course: Empirical Research Quantitative."

⁴⁰ Tajik, Noor, and Golzar, "Investigating Differentiated Instruction and the Contributing Factors to Cater EFL Students' Needs at the Collegial Level"; Zaitsau et al., "Thermal Decomposition of 1-Ethyl-3-Methylimidazolium Acetate," 123093.

⁴¹ Hardian M Fajri, Arita Marini, and Linda Zakiah, "Pembelajaran Berdiferensiasi Dalam Implementasi Kurikulum Merdeka Pada Pendidikan Matematika," *Jmie (Journal of Madrasah Ibtidaiyah Education)* 7, no. 2 (2023): 254, <https://doi.org/10.32934/jmie.v7i2.604>.

⁴² Griffin, "Workplace Learning Evaluation: A Conceptual Model and Framework," 175; Rina A Purnamaningwulan, "Evaluating the Efficacy of Differentiated Instruction in EFL Speaking Classes: A Classroom Action Research Study," *Veles Voice of English Language Education Society* 8, no. 1 (2024): 186-96, <https://doi.org/10.29408/veles.v8i1.25635>.

also the quality of reflection, consistency in practice, and the development of self-awareness throughout the cycle. This approach aligns with the paradigms of “assessment for learning” and “assessment as learning,” which emphasize ongoing evaluation and feedback based on student progress.⁴³ At the level of organizational learning theory, Argyris and Schön introduced the concept of double-loop learning evaluation not only of correct actions but also of the underlying assumptions and policies so that evaluation of the learning process becomes an essential part of the continuous improvement of the learning system.⁴⁴ Thus, the use of logbooks, portfolios, and self-reflection in Tamkīn can serve as contextual mechanisms for identifying learning assumptions that need to be re-examined, enabling a spiral of competence toward higher levels in the next cycle (Affirmation → Implementation → Nurture Confidence).⁴⁵ The process of developing *self-efficacy* in the Tamkīn Model is not linear but rather spiral in nature. Each ACT-SAIN cycle yields learning experiences and reflections that form the basis for affirmation in the next cycle, so that students’ self-confidence develops progressively, as illustrated in the diagram below.



The figure above shows that the Nurture Confidence phase is not the end point of learning, but rather the foundation for the Affirmation phase in the next cycle. Thus, the mastery experience, reflective feedback, and increased self confidence gained in one cycle will strengthen students’

⁴³ Bui, “An Investigation of College Graduates’ and Employers’ Perceptions,” 30.

⁴⁴ Bochman and Kroth, “Immunity to Transformational Learning and Change,” 335.

⁴⁵ Natalie Canning and Sue Callan, “Heutagogy: Spirals of Reflection to Empower Learners in Higher Education,” *Reflective Practice* 11, no. 1 (2010): 71–82.

motivation and readiness to face more complex learning challenges in the next cycle. This spiral mechanism aligns with the principles of heutagogy, which emphasize reflective learning and the continuous development of capabilities. The causal relationship between the ACT-SAIN phases and the *self-efficacy* dimension is contextual and can be influenced by classroom culture, student characteristics, and the institutional context.⁴⁶ Given this contextual variability, caution is needed when assessing the magnitude of the effect of affirmation on speaking anxiety and psychological safety, as well as how cultural context moderates the role of verbal persuasion.⁴⁷ Mastery experience remains a powerful source of self-efficacy, but its effectiveness increases when balanced by vicarious experience through observing the achievements of peers, such as peer learning and peer showcases in the Tamkīn cycle. Research on language learning shows that observing a model (vicarious experience) can boost self-confidence if the model is relevant and well-structured.⁴⁸ A continuous competency spiral requires an evaluation design that does not merely assess final outcomes, but rather tracks changes in *self-efficacy* throughout the cycle. This is consistent with the literature on double-loop learning, which emphasizes the need to evaluate underlying learning assumptions and instructional practices in order to foster continuous improvement.⁴⁹

The findings of this study indicate that the implementation of the Cyber-Heutagogy-based Tamkīn Model requires several prerequisites to be optimally applied in a higher education context. In terms of infrastructure, institutions need to provide a Learning Management System (LMS), adequate internet access, and digital platforms that support both synchronous and asynchronous learning activities. In addition, faculty members need to possess digital pedagogical competencies to design differentiated instruction, facilitate heutagogy-based learning, and provide ongoing feedback at each phase of the ACT-SAIN model.

LIMITATIONS

This research was conducted as a qualitative case study in the Arabic Language Education Program (PBA) at Al-Qur'an Science University (UNSIQ). Therefore, the research findings must be understood within the institutional, pedagogical, and sociocultural contexts in which the Tamkīn Model was implemented. Although this study demonstrates the potential of the Cyber-Heutagogy-based

⁴⁶ Arielle Bonneville-Roussy et al., "The Role of Cultural Values in Teacher and Student Self-Efficacy: Evidence from 16 Nations," *Contemporary Educational Psychology* 59 (2019): 101798.

⁴⁷ Xiaowei Tu, "The Role of Classroom Culture and Psychological Safety in EFL Students' Engagement," *Frontiers in Psychology* 12 (2021): 760903.

⁴⁸ Suryati, Ratih, and Maryadi, "How Can Teachers Tailor Success? Innovative Strategies for Content, Process, and Product in EFL Classrooms."

⁴⁹ Lipshitz, "Chic, Mystique, and Misconception," 460.

Tamkīn Model in enhancing students' *self-efficacy* in maharah kalam learning, the findings are not intended to be statistically generalized. Further research is recommended to test the application of this model in various higher education contexts with diverse institutional characteristics, student backgrounds, and learning environments to strengthen its transferability and pedagogical relevance.

CONCLUSION

This study shows that the Cyber Heutagogy design, based on the Tamkīn Model, is capable of addressing the heterogeneity in *self-efficacy* among students in the Arabic Language Education (PBA) program at UNSIQ in their maharah kalam learning. The model, developed through the integration of humanistic theory (Rogers), differentiated instruction (Tomlinson), Heutagogy (Hase & Kenyon), and Cybergogy and implemented through the seven phases of ACT-SAIN (Affirmation, Self-Concept, Tendency, Self-Initiative, Action Note, Implementation, and Nurture Confidence) contributes to increased student participation, learning autonomy, self-reflection, and self-confidence in communicating in Arabic. The research findings indicate an increase across all dimensions of Bandura's *self-efficacy* following the implementation of the model, particularly in the dimensions of mastery experience and emotional states (each increasing by 1.3 points), accompanied by a decrease in the proportion of students with low *self-efficacy* from 40% to 8%. From a pedagogical perspective, the integration of differentiated instruction, authentic portfolio-based assessment, and the use of digital technology in the Tamkīn Model resulted in a more personalized, contextual, and sustainable learning experience. These findings indicate that the Cyber Heutagogy approach can serve as an alternative design for Arabic language proficiency instruction that supports the development of *self-efficacy* while enhancing student engagement in the learning process. Theoretically, this study expands the application of the Cyber Heutagogy framework in the context of Arabic language learning at the university level by integrating psychological, pedagogical, and technological dimensions into a single operational learning model. In practical terms, the Tamkīn Model has the potential to serve as a reference that can be adapted for Arabic Language Education programs or Islamic higher education institutions with comparable student characteristics and learning contexts.

REFERENCES

- Akhiruddin, Harris Rizki, Anas Ahmadi, and Resdianto P Raharjo. "Pemanfaatan Cerita Interaktif Digital Sebagai Media Pembelajaran Bahasa Yang Inovatif." *Judika (Jurnal Pendidikan Unsika)* 12, no. 2 (2024): 193–208. <https://doi.org/10.35706/judika.v12i2.11574>.
- Abdelhakim, Ayman et al. "Evaluating Cabin Crew Food Safety Training Using the Kirkpatrick Model: An Airlines' Perspective." *British Food Journal* 120, no. 7 (2018): 1574–89. <https://doi.org/10.1108/bfj-07-2017-0395>.

- Andrian Riko and Widiya Yul. "Arabic Teaching Efficacy Model (ATEM): A Language Teaching Model Design." *International Journal of Arabic-English Studies* 23, no. 2 (2023): 269–384. <https://doi.org/10.33806/ijaes.v23i2.468>.
- Bandura, Albert. *Self-Efficacy: The Exercise of Control*. Freeman, 1997
- Blaschke, Lisa Marie. "Heutagogy and Lifelong Learning: A Review of Heutagogical Practice and Self-Determined Learning." *The International Review of Research in Open and Distributed Learning* 13, no. 1 (2012): 56–71.
- Bochman, David J., and Michael Kroth. "Immunity to transformational learning and change." *The Learning Organization* 17, no. 4 (2010): 328–342.
- Bui, Tuan N. "An Investigation of College Graduates' and Employers' Perceptions of Graduates' Social Skills Performance in Vietnam." (2021). <https://doi.org/10.12794/metadc1833541>
- Canning, Natalie and Sue Callan. "Heutagogy: Spirals of Reflection to Empower Learners in Higher Education." *Reflective Practice* 11, no. 1 (2010): 71–82.
- Creswell, John W., and Cheryl N. Poth. *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, CA: Sage publications, 2017.
- Cohen, Geoffrey L et al. "Reducing the Racial Achievement Gap: A Social-Psychological Intervention." *Science* 313, no. 5791 (2006): 1307–10.
- Chudzaifah, Ibnu and Afroh N Hikmah. "Educational Revolution in the Digital Era: Integrating Technology in the Independent Curriculum." *Journal of Quality Assurance in Islamic Education (Jqai)* 4, no. 1 (2024): 38–49. <https://doi.org/10.47945/jqai.v4i1.1359>.
- De Moor, Bart A et al. "Normal Mode Analysis in Zeolites: Toward an Efficient Calculation of Adsorption Entropies." *Journal of Chemical Theory and Computation* 7, no. 4 (2011): 1090–1101. <https://doi.org/10.1021/ct1005505>.
- Erarslan, Ali. "English Language Teaching and Learning During Covid-19: A Global Perspective on the First Year." *Journal of Educational Technology and Online Learning* 4, no. 2 (2021): 349–67. <https://doi.org/10.31681/jetol.907757>
- Ellateef, Eman Abd Ellateef Mohammed Abd. "Utilizing a Strategy Based on the Mastery Learning Approach to Enhance EFL Oral Communication Skills and Self-efficacy of Secondary Stage Students." *مجلة القراءة والمعرفة* 21, no. 234 (2021): 1–26. <https://doi.org/10.21608/mrk.2021.162656>.
- Griffin, Richard. "Workplace Learning Evaluation: A Conceptual Model and Framework." *Industrial and Commercial Training* 43, no. 3 (2011): 172–78. <https://doi.org/10.1108/00197851111123631>.
- Hardian, Mei Fajri, Arita Marini, and Linda Zakiah. "Pembelajaran Berdiferensiasi Dalam Implementasi Kurikulum Merdeka Pada Pendidikan Matematika." *Jmie (Journal of Madrasah Ibtidaiyah Education)* 7, no. 2 (2023): 254. <https://doi.org/10.32934/jmie.v7i2.604>.
- Hase, Tewart and Chris Kenyon. *Self-Determined Learning: Heutagogy in Action*. London: Bloomsbury, 2013.
- Jiang Xiaxia et al. "Does Instructors' and Students' On-Camera Presence Enhance Learning?." *Journal of Computer Assisted Learning* 41, no. 1 (2025). <https://doi.org/10.1111/jcal.13122>.
- Jee, Min J. "Foreign Language Anxiety and Self-Efficacy: Intermediate Korean as a Foreign Language Learners." *Lanaguage Research* 55, no. 2 (2019): 431–56. <https://doi.org/10.30961/lr.2019.55.2.431>.

- Kenyon, Chris, and Stewart Hase. "Moving from Andragogy to Heutagogy in Vocational Education." *Erich* (2001): 1-6.
- Lipshitz, Raanan. "Chic, mystique, and misconception: Argyris and Schön and the rhetoric of organizational learning." *The Journal of Applied Behavioral Science* 36, no. 4 (2000): 456-473.
- Liou, Shwu-Ru et al. "Effectiveness of Differentiated Instruction on Learning Outcomes and Learning Satisfaction in the Evidence-based Nursing Course: Empirical Research Quantitative." *Nursing Open* 10, no. 10 (2023): 6794–6807. <https://doi.org/10.1002/nop2.1926>.
- Lincoln, Yvonna S. *Naturalistic Inquiry*. London: Sage Publications, 1985.
- Mohamed, Heba M. "Using Dogme in ELT to Develop Student Teachers' Speaking Skills and Their Self-Efficacy." *Journal of Research in Curriculum Instruction and Educational Technology* 5, no. 3 (2019): 163–86. <https://doi.org/10.21608/jrciet.2019.54147>.
- Muniroh, Siti, and Nanang Zubaidi. "Enhancing Students' Engagement in FLSP Class: The Impact of Nearpod." *Celtic a Journal of Culture English Language Teaching Literature and Linguistics* 11, no. 1 (2024): 39–55. <https://doi.org/10.22219/celtic.v11i1.33329>.
- Miles, Matthew B, A Michael Huberman, and Johnny Saldana, *Qualitative Data Analysis*. London: Sage Publications, 2014.
- Ma, Yuxia. "The Triarchy of L2 Learners' Emotion, Cognition, and Language Performance: Anxiety, Self-Efficacy, and Speaking Skill in Lights of the Emerging Theories in SLA." *Frontiers in Psychology* 13 (2022). <https://doi.org/10.3389/fpsyg.2022.1002492>.
- Norton, Samantha Marie. "Lessons Learned From COVID-19 Remote Instruction: Implications for Future Educational Practices." *Eric* (2024).
- Ojong, Akem Solange. "Unraveling the Efficacy of Differentiated Instruction in Enhancing Second Language Acquisition: A Comprehensive Review and Future Directions." *International Journal of Linguistics Literature and Translation* 6, no. 6 (2023): 75–82. <https://doi.org/10.32996/ijllt.2023.6.6.8>.
- Otodu, Sartika and Khoiriyah. "Students' Preference of Speaking Activities in Online ESP Classes." *Al-Ishlah: Jurnal Pendidikan* 15, no. 2 (2023): 1310-1320.
- Okyar, Hatice. "Foreign Language Speaking Anxiety and Its Link to Speaking Self-Efficacy, Fear of Negative Evaluation, Self-Perceived Proficiency and Gender." *Science Insights Education Frontiers* 17, no. 2 (2023): 2715–31. <https://doi.org/10.15354/sief.23.or388>.
- Potot, Amalia et al. "Differentiated Instruction as Strategy in Improving Reading Comprehension." *Journal of English Language Teaching and Applied Linguistics* 5, no. 4 (2023): 113–28. <https://doi.org/10.32996/jeltal.2023.5.4.12>.
- Puyod, Jenette Villegas et al. "The Role of Teacher Support, Classmate Support, and Self-efficacy in Reducing Speaking Anxiety among University Students Using English as a Foreign Language." *Human Behavior, Development & Society* 21, no. 3 (2020): 59-68.
- Rabbi, Fajlay, S M A Islam, and Jamil Hossain. "Enhancing English Language Learning in Tertiary Education Through Blended Approaches: A Bangladesh Perspective." *Indonesian Journal of Education Research (Ijoer)* 5, no. 1 (2024): 1–9. <https://doi.org/10.37251/ijoer.v5i1.745>.
- Roussy, Arielle Bonneville et al. "The Role of Cultural Values in Teacher and Student Self-Efficacy: Evidence from 16 Nations." *Contemporary Educational Psychology* 59 (2019): 101798.
- Rogers, Carl Ransom and H Jerome Freiberg. *Freedom to Learn*. Merrill/Macmillan College: Publishing Co, 1994.

- Schunk, Dale H and Maria K DiBenedetto. "Motivation and Social Cognitive Theory." *Contemporary Educational Psychology* 60 (2020): 101832.
- Siyabi, Munira Said Al and Dalal Abdullah Al Shekaili. "Teachers' Perceptions of Customizing Students' Learning Through Differentiated Instruction at a Tertiary Level." *Arab World English Journal* 12, no. 1 (2021): 374–87. <https://doi.org/10.24093/awej/vol12no1.25>.
- Siemens, George. "Learning Analytics: The Emergence of a Discipline." *American Behavioral Scientist* 57, no. 10 (2013): 1380–1400.
- Suryati, Imas, Koesoemo Ratih, and Maryadi Maryadi. "How Can Teachers Tailor Success? Innovative Strategies for Content, Process, and Product in EFL Classrooms." *Veles Voice of English Language Education Society* 8, no. 1 (2024): 150-162. <https://doi.org/10.29408/veles.v8i1.24451>.
- Tajik, Omid, Shagofah Noor, and Jawad Golzar. "Investigating Differentiated Instruction and the Contributing Factors to Cater EFL Students' Needs at the Collegial Level." *Asian-Pacific Journal of Second and Foreign Language Education* 9, no. 1 (2024): 1-19. <https://doi.org/10.21203/rs.3.rs-3513269/v1>.
- Tomlinson, Carol Ann et al. "Differentiating Instruction in Response to Student Readiness, Interest, and Learning Profile in Academically Diverse Classrooms: A Review of Literature." *Journal for the Education of the Gifted* 27, no. 2–3 (2003): 119–45.
- Tomlinson, Carol Ann, *The Differentiated Classroom: Responding to the Needs of All Learners*. Alexandria: Ascd, 2014.
- Tu, Xiaowei. "The Role of Classroom Culture and Psychological Safety in EFL Students' Engagement." *Frontiers in Psychology* 12 (2021): 760903.
- Wang, Minjuan and Myunghee Kang. "Cybergogy for Engaged Learning: A Framework for Creating Learner Engagement through Information and Communication Technology." in *Engaged Learning with Emerging Technologies* (Springer, 2006), 225–53.
- Wenno, Eldaa C. "21st CENTURY IN GERMAN LANGUAGE LEARNING: IMPLEMENTATION OF CYBERGOGY CONCEPT." *Ijlecr - International Journal of Language Education and Culture Review* 7, no. 2 (2021): 122–35. <https://doi.org/10.21009/ijlecr.072.12>.
- Woodrow, Lindy. "A Model of Adaptive Language Learning." *Modern Language Journal* 90, no. 3 (2006): 297–319. <https://doi.org/10.1111/j.1540-4781.2006.00424.x>.
- Xi Xia, Jiang et al. "Does Instructors' and Students' On-Camera Presence Enhance Learning?." *Journal of Computer Assisted Learning* 41, no. 1 (2025): e13122.
- Yin, Robert K. *Case Study Research and Applications*, Sage Thousand Oaks, CA, 2018.
- Zaitsau, Dzmitry H et al. "Thermal Decomposition of 1-Ethyl-3-Methylimidazolium Acetate." *Journal of Molecular Liquids* 390 (2023): 123093. <https://doi.org/10.26434/chemrxiv-2023-68b5p>.