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# Mechanisms of Washback in Arabic Writing Assessment: Insights from Tertiary Learners

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### ABSTRACT

This study examines how the Introductory Arabic Language Writing Assessment (IALWA) shapes student learning within a Malaysian tertiary context, with particular attention to the mechanisms through which washback operates at the course level. Drawing on established washback frameworks, the study investigates learners' perceptions of the assessment, its influence on in-class and out-of-class learning behaviours, and the instructional and technological factors that mediate these processes. A mixed-methods design was adopted to capture both behavioural patterns and learner interpretations. Qualitative data were generated through semi-structured interviews with six students to provide in-depth insights into learners' experiences, while quantitative data from a survey of 40 learners were analysed using the Rasch Measurement Model to examine the relative strength and distribution of washback-related responses. The findings suggest that washback operates through interconnected pedagogical and contextual mechanisms rather than as a uniform effect. Pedagogically, alignment between instructional practices and assessment demands such as explicit guidance, structured revision, and the use of dummy tests was associated with focused engagement with vocabulary and grammar learning and with assessment-oriented preparation inside and outside the classroom. These patterns indicate locally constructive washback within the studied course. However, washback effects were moderated by non-pedagogical factors. Technical challenges related to the digital administration of the assessment, particularly Arabic keyboard use and internet stability, introduced additional cognitive demands for some learners. Students without prior exposure to Arabic also reported greater difficulty, which shaped their perceptions of the assessment and influenced how they approached preparation. Overall, the study highlights washback in Arabic writing assessment as a multidimensional and context-dependent process shaped by instructional clarity, assessment design, learner background, and technological conditions. While the findings are limited to a single course context, they offer analytic insights into how washback mechanisms function in introductory third-

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language writing assessment. The study underscores the importance of pedagogically aligned and technically accessible assessment practices and provides directions for future research examining washback across broader learner populations, skills, and institutional settings.

## 1. Introduction

Assessment plays a central role in shaping teaching and learning, particularly in language education, where tests influence instructional priorities and students' learning behaviours. This influence, commonly referred to as washback, describes the ways assessment practices affect classroom instruction, learner motivation, engagement, and learning strategies [1-3]. Washback does not operate as a simple or unidirectional outcome of testing but rather, it emerges through multiple interacting mechanisms involving teacher decision-making, learner beliefs, instructional practices, and the stakes attached to the assessment. Recent washback scholarship has increasingly emphasised the importance of examining these mechanisms and mediating processes, rather than focusing solely on whether washback exists [4]. Depending on how these mechanisms interact, washback may be constructive, promoting alignment between assessment and learning goals, or constraining, leading to surface-level learning, anxiety, or curricular distortion [5,6].

As washback operates through the interaction between assessment demands, instructional practices, and learner strategies, certain language skills, particularly writing, are especially susceptible to its effects. Writing assessment requires learners to integrate vocabulary, grammar, organisation, and cognitive processing, making them highly responsive to how these components are taught and evaluated. The design of writing tasks, the transparency of scoring criteria, and the degree of instructional scaffolding provided by lecturers all shape how learners prepare for assessment. Consequently, writing assessments often generate stronger and more observable washback effects than other language skills. This sensitivity is further amplified in foreign or third-language contexts such as Arabic, where learners must navigate unfamiliar scripts, orthographic systems, and genre conventions. At the introductory level, Arabic writing poses additional challenges, including mastery of new graphemes, right-to-left directionality, morphological patterns, and digital typing systems. As a result, the design and delivery of writing assessments can significantly influence how learners allocate effort, adopt learning strategies, and perceive their own progress. Technical factors such as Arabic keyboard usage, online testing platforms, and internet stability may also mediate assessment experiences, creating additional pathways through which washback is produced.

In Malaysia, washback research remains relatively limited, with most empirical studies focusing on English language assessments, particularly the Malaysian University English Test (MUET) [7,8]. Recent work by Noh *et al.*, [9] demonstrates that MUET generates both intended and unintended washback effects on learners' perceptions, instructional practices, and preparation behaviours, highlighting the importance of examining washback mechanisms within local assessment contexts. It is worth noting that research on washback in Arabic language assessment is scarce, despite emerging regional studies suggesting that Arabic writing assessments can exert both motivational and inhibitory effects on learners [10-12]. Given that Arabic is often learned as a third language in Malaysian universities, learners may face additional linguistic, orthographic, and technological challenges that intensify the washback effects of writing assessments. However, these dynamics remain underexplored in the Malaysian context.

Despite growing scholarly interest in washback, no empirical study in Malaysia has examined how an introductory Arabic writing assessment shapes tertiary learners' in-class engagement and out-of-class learning strategies. Addressing this gap is important, as assessment practices in third-language learning contexts often determine how learners allocate effort, develop learning strategies, and

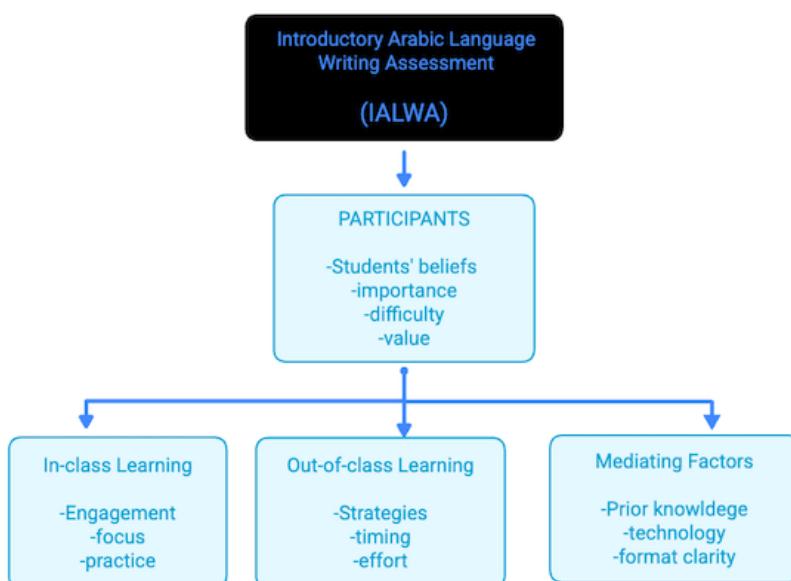
evaluate their own capabilities. More importantly, investigating washback in this context enables a closer examination of the mechanisms through which assessment supports or constrains learning, particularly within digitally mediated testing environments. Against this backdrop, the present study investigates the mechanisms of washback generated by the Introductory Arabic Language Writing Assessment (IALWA) in a Malaysian tertiary institution. Drawing on established washback models [13-15], and integrating qualitative insights with Rasch-validated quantitative measures, this study examines how students perceive the assessment, how it shapes their in-class and out-of-class learning behaviours, and which contextual factors mediate these processes. The present study addresses the identified gap by first exploring the intended washback of IALWA through document analysis, followed by an examination of students' perceptions, how the assessment influences their behavioural engagement in classroom settings and their self-directed learning outside the classroom. Finally, recognising that washback is mediated by contextual factors, the study also investigates how prior knowledge, technological demands, and assessment format shape the nature and strength of washback effects. Accordingly, this study was guided by the following research questions:

1. How do students perceive the Introductory Arabic Language Writing Assessment (IALWA), and what beliefs do they hold about its importance, difficulty, and impact on their learning?
2. How does IALWA influence students' in-class learning behaviours, including their engagement with instructional activities, preparatory practices, and interactions with the lecturer?
3. How does IALWA shape students' out-of-class learning strategies and preparation behaviours beyond the formal classroom setting?
4. What contextual factors mediate the washback of IALWA on student learning?

## *1.2 Washback Mechanism*

Washback does not operate as a simple, uniform consequence of testing. Instead, it emerges through a set of interacting mechanisms shaped by learner characteristics, teaching practices, and test design. Watanabe [15] identifies three major sources of variation in washback: (a) learner-related mechanisms such as prior knowledge, beliefs, and motivation; (b) teacher-related mechanisms such as instructional decisions, classroom focus, and feedback practices; and (c) test-related mechanisms including task format, scoring criteria, and perceived difficulty. These mechanisms do not act independently. They interact dynamically, resulting in different washback effects for different learners or instructional contexts. In the present study, these categories form the basis for analysing how IALWA influences perceptions and learning behaviours. Building on Watanabe's distinction, Green [14] conceptualises washback as operating through both cognitive and behavioural pathways. Learners first form perceptions of an assessment's importance and demands, which constitute the perceptual mechanism. This directly informs RQ1, which examines how students perceive IALWA and how these perceptions frame their understanding of what is important to learn. These perceptions then lead to learning mechanisms, represented in RQ2 (in-class learning) and RQ3 (out-of-class learning), where students adopt strategies aligned with what they believe the test requires. Finally, washback is conditioned by mediating mechanisms, namely contextual factors such as technological constraints, assessment clarity, and prior Arabic exposure, which correspond to RQ4. Writing assessment often heightens these mechanisms because writing requires the integration of vocabulary, grammar, orthography, organisation, and task interpretation. Learners' perceptions of what the writing test rewards, the type of scaffolding provided by instructors, and the technological

conditions under which writing is produced (e.g., Arabic keyboards) all shape whether washback becomes constructive or constraining. Understanding these mechanisms is therefore essential for interpreting how IALWA influences learning in a beginner-level Arabic course. The following conceptual framework (figure 1) summarises how these mechanisms interact in this study, illustrating washback as a dynamic, multi-pathway process in which test characteristics shape learner perceptions, which then guide learning behaviours inside and outside the classroom, all moderated by individual and contextual factors. In this study, washback mechanisms—specifically perceptual, in-class, and out-of-class learning mechanisms—form the core analytic focus. Learner background and technological conditions are treated as mediating factors rather than independent constructs, shaping the strength and direction of washback rather than constituting washback outcomes themselves.



**Fig. 1:** Conceptual framework

## 2. Methodology

This study employed a mixed-methods design to investigate the mechanisms of washback on the Introductory Arabic Language Writing Assessment (IALWA). A mixed-methods approach was chosen to capture both the depth of learners' experiences through qualitative data and the systematic patterns of learning behaviours through quantitative measures. The design aligns with washback research, which often requires triangulation to understand how perceptions, classroom engagement, and out-of-class learning interact in response to assessment demands. The mixed-methods design was adopted to capture both the distribution and the interpretation of washback-related behaviours. Rasch analysis was used to model response patterns and identify the relative strength of endorsement across participants, while qualitative interviews were employed to illuminate how students interpreted assessment demands and enacted learning strategies. The qualitative component was not intended to represent frequency, but to explain how and why particular patterns observed in the Rasch results emerged.

## 2.1 Research Design

Two complementary components were employed in this study, namely qualitative and quantitative components. For the qualitative component, individual semi-structured interviews were conducted to explore students' perceptions of IALWA and to understand how the assessment shaped their in-class, out-of-class learning behaviours and mediating factors contributing to their learning experiences. As for the quantitative component, a questionnaire, Washback on Learning and Outcome Survey (WOLOS) [16] was adapted and administered to examine learners' perceptions and learning behaviours on a broader scale. Rasch Measurement Model analysis was employed to validate the instrument and to generate interval-level person measures for each dimension. This design allowed the integration of qualitative insights and Rasch-derived quantitative estimates to provide a more comprehensive understanding of washback mechanisms. It is noteworthy that this study does not aim to generalise washback mechanisms across Malaysian tertiary Arabic education. Rather, it adopts a case-based analytic approach to examine how washback operates within a specific introductory Arabic writing assessment. The sample size is appropriate for identifying patterns of interaction between assessment design, learner perceptions, and learning behaviours within a bounded instructional context.

## 2.2 Participant

A total of 40 students enrolled in the course and undertaking the IALWA participated in the survey. The sample comprised 31 females and 9 males. Most respondents were in their second year of study ( $n = 30$ ), with smaller proportions from the third year ( $n = 5$ ), first year ( $n = 4$ ), and fourth year ( $n = 1$ ). The majority of participants ( $n = 37$ ) reported having some basic background in Arabic, while three indicated no prior exposure to the language. For the qualitative component, six students were selected through purposive sampling to capture diversity in linguistic background and performance levels. Individual interviews were conducted via Google Meet at a time convenient for each participant. The demographic information is presented in Table 1 below:

**Table 1**  
Demographic information

Gender	
Male	9
Female	31
Year of Study	
First Year	4
Second Year	30
Third Year	5
Fourth Year	1
Basic Arabic	
Yes	37
No	3

## 2.3 Instruments

Two instruments were used in this study: a semi-structured interview protocol and a questionnaire adapted from the WOLOS [16]. The interview protocol was designed to elicit in-depth insights into students' perceptions of the IALWA and to explore how the assessment shaped their in-

class and out-of-class learning. It comprised three broad sections covering perceptions, in-class learning, and out-of-class learning. To complement the qualitative data, a questionnaire was administered to capture broader patterns in learners' experiences. It consisted of six sections: demographic information, perceptions of IALWA, in-class learning strategies, in-class preparation for the assessment, out-of-class learning strategies, and out-of-class preparation for the assessment. Items were rated on a 6-point Likert scale ranging from strongly disagree to strongly agree.

#### **2.4 Data Collection and Analysis**

Data were collected in two phases to align with the mixed-methods design of the study. First, qualitative data were obtained through individual semi-structured interviews conducted via Google Meet at a time convenient for each participant. Each interview lasted approximately 20–30 minutes and was audio-recorded with informed consent. The interviews explored students' perceptions of the IALWA as well as their in-class and out-of-class learning behaviours in response to the assessment. Second, quantitative data were gathered through an online questionnaire distributed to all students undertaking the IALWA. The questionnaire was administered via Google Forms, allowing participants to respond voluntarily and anonymously. This dual-phase data collection allowed for the triangulation of findings and a more comprehensive understanding of the mechanisms through which IALWA shapes student learning. The qualitative interview data were transcribed verbatim and analysed using thematic analysis to identify recurring patterns related to learners' perceptions of IALWA, their engagement in class, their preparation outside of class, and the contextual factors mediating these behaviours. The analysis followed an inductive approach, enabling themes to emerge naturally from participants' descriptions.

Quantitative data from the questionnaire were analysed using the Rasch Rating Scale Model (RSM) in Winsteps to examine the psychometric functioning of the instrument and to validate the constructs measured. Within Rasch measurement, raw scores are changed into standardized units termed logits (log-odds units), which are treated as interval-level measures. These logits are standardized to have a mean of zero and a standard deviation of one, and they typically range from -2 to +2, with higher values reflecting more of that trait [17]. In this study, there are 3 main dimensions; perceptions, in-class learning and out-of-class learning and each dimension was analysed separately. Together, the qualitative and Rasch-derived quantitative analyses enabled a multidimensional exploration of washback mechanisms associated with the assessment.

### **3. Findings**

The findings of this study are presented in five parts, beginning with the psychometric properties of the instrument. This is followed by the intended washback of the IALWA, derived from the analysis of official course documents. This information provides baseline data about IALWA to serve as the guideline for what to investigate in validation research [18], such as the present study. Following this, the actual washback results are reported, starting with qualitative findings from student interviews, followed by quantitative findings based on the Rasch analysis of the questionnaire. To present the qualitative findings systematically, the emergent themes and their corresponding illustrative quotations have been arranged into thematic tables. The actual washback is organised according to three dimensions: (1) students' perceptions of IALWA; (2) in-class learning, encompassing learning strategies and assessment preparation during lessons; and (3) out-of-class learning, covering independent study strategies and preparatory behaviours outside the classroom. Together, these

findings provide a comprehensive account of how IALWA influences learners' beliefs, actions, and mediating factors across different learning contexts.

### 3.1 Psychometric Properties of the Instrument

Prior to reporting the Rasch findings for each research question, the reliability and measurement precision of the three dimensions were examined. Table 2 presents the Rasch person and item reliability, separation indices, and Cronbach's alpha values for the perception, in-class learning, and out-of-class learning scales.

**Table 2**  
Rasch reliability and separation indices for the three dimensions

Dimension	Person Reliability	Person Separation	Item Reliability	Item Separation	Cronbach's Alpha
Perception	.62 – .69	1.28 – 1.48	.91 – .92	3.19 – 3.47	.71
In-Class Learning	.74 – .78	1.69 – 1.85	.91 – .92	≥ 3.19	.79
Out-of-Class Learning	.79 – .84	1.94 – 2.27	.93	3.57 – 3.70	.87

Note. Person reliability indicates the scale's ability to distinguish respondents with different levels of the construct, while item reliability reflects the stability of the item hierarchy across samples.

The perception dimension demonstrated moderate person reliability (.62–.69) and acceptable internal consistency ( $\alpha = .71$ ), indicating reasonable differentiation among students' beliefs and attitudes toward IALWA. Item reliability for this dimension was high (.91–.92), suggesting a stable item hierarchy. The in-class learning dimension showed stronger measurement precision, with person reliability ranging from .74 to .78 and good internal consistency ( $\alpha = .79$ ). Item reliability was similarly high, indicating well-distributed items. The out-of-class learning dimension demonstrated the strongest psychometric properties, with high person reliability (.79 to .84), strong separation indices, and high internal consistency ( $\alpha = .87$ ). Overall, the results indicate that all three dimensions exhibit acceptable to strong reliability, supporting their use in examining perceptual and behavioural washback mechanisms.

### 3.2 Intended Washback of IALWA

IALWA aims to ensure that students can respond to simple sentences, short texts, pictures, and dialogues in Arabic using basic grammatical structures and vocabulary. It emphasises foundational linguistic elements that directly support writing performance, including Arabic alphabets, pronouns, gender markers, prepositions, present and past tense verbs, numbers, adjectives, and sentence construction across daily-life themes such as greetings, family, home, food, and daily activities. Teaching methodologies such as blended learning, interactive lectures, role play, discussion, writing activities, and collaborative learning are designed to support students' development of written production at the beginner level (CEFR A1). Collectively, these elements indicate that the IALWA is intended to reinforce basic language structures, encourage accurate reproduction of simple written forms, and promote functional written communication aligned with CEFR A1 expectations. As such, the intended washback of IALWA is to guide learners towards mastery of foundational writing skills in Arabic through systematic exposure to vocabulary, grammar, and sentence-level practice embedded throughout the course.

### 3.3 Perception of IALWA

RQ1 examined how students perceive the IALWA and what beliefs they hold regarding its importance, difficulty, and impact on their learning. The themes and supporting student quotations are presented in table 3 below:

**Table 3**  
Themes for RQ1

Theme	Summary	Quotes
Perceived Difficulty	Perceptions vary based on prior Arabic knowledge. Students with basics find it manageable; beginners find it challenging, especially digitally.	<ul style="list-style-type: none"><li>“At level one, it’s easy... I have Arabic basics.” (M)</li><li>“It wasn’t easy but not too difficult either.” (A)</li><li>“Difficult due to the digital format.” (I)</li></ul>
Importance of the Assessment	Students view the assessment as essential for evaluating understanding and improving writing skills.	<ul style="list-style-type: none"><li>“We must learn how to write the language to understand it.” (A)</li><li>“It evaluates students’ understanding.” (F)</li></ul>
Motivation & Emotion	Students express enjoyment and motivation in learning Arabic, especially when they have some background.	<p>“I like learning Arabic because it’s fun.” (A) “I like it because I already have some basics.” (M)</p>

The qualitative findings for RQ1 indicate that students held varied perceptions of the IALWA, shaped primarily by their prior exposure to Arabic. Three key themes emerged: perceived difficulty, importance of the assessment, and motivation toward learning Arabic. In terms of perceived difficulty, students differed in how difficult they perceived IALWA to be. Those with basic Arabic knowledge found it relatively manageable, as reflected in M’s comment: “At level one, it’s easy... I have Arabic basics.” Others described the test as moderately challenging but still achievable with preparation. A stated, “It wasn’t easy but not too difficult either.” In contrast, students without prior exposure or those less comfortable with digital assessment formats reported higher difficulty. I expressed this clearly: “Difficult due to the digital format.” These contrasting views show that students’ perceptions of difficulty depend heavily on their linguistic background and familiarity with the test format.

In terms of the importance of the assessment, there was agreement that the writing assessment serves an important role in evaluating their understanding of the language. A noted that writing is central to mastering Arabic: “We must learn how to write the language to understand it.” Similarly, F highlighted the evaluative purpose of IALWA, stating that it functions “to evaluate students’ understanding.” This shared recognition suggests that students view the assessment not merely as a requirement but as a meaningful measure of their progress. With regards to motivation and emotional response, students generally reported positive emotional engagement with learning Arabic, which shaped their perceptions of IALWA. A described learning Arabic as enjoyable: “I like learning Arabic because it’s fun.” M echoed this sentiment, attributing her positive experience to having some foundational knowledge: “I like it because I already have some basics.” These comments illustrate that students’ motivation and prior background contribute to how they experience and interpret the assessment.

Consistent with the qualitative findings, the Rasch analysis provides further insight into how students perceive IALWA. As shown in Table 4, items related to the assessment’s importance were moderately endorsed, while items reflecting difficulty were less strongly agreed with.

**Table 4**  
Students' perception of IALWA

Item	Logits
IALWA is a difficult assessment	1.87
IALWA is an important assessment	.25
IALWA is important to develop my critical thinking skills	.19
IALWA has improved my writing skills	.02
IALWA is important to improve my knowledge	-.49
IALWA is important to improve my Arabic Language Proficiency	-.49
I like attending IALWA class	-1.36

The item "IALWA is a difficult assessment" recorded the highest logit value (1.87), making it the least endorsed perception. This suggests that, overall, students were less likely to strongly agree that the assessment was difficult. This aligns with qualitative evidence indicating that students with some Arabic background found the task manageable, while only a subset experienced it as challenging. Items indicating the importance of the assessment, including its role in assessing learning (0.25), developing critical thinking (0.19), and improving writing skills (0.02), cluster around logits close to zero. These near-zero values indicate moderate endorsement, suggesting that students generally recognise IALWA as meaningful and beneficial, though with some variation in the strength of agreement. Two perception items showed strong endorsement, reflected in negative logits. Students readily agreed that IALWA is important for improving their knowledge (-0.49) and Arabic language proficiency (-0.49). These results reflect a clear belief that the writing assessment contributes directly to their learning progress. The item with the lowest logit, "I like attending IALWA class" (-1.36), was the easiest for students to endorse, indicating a high level of agreement. This suggests that students' overall classroom experience is positive, which may contribute to constructive washback by fostering motivation and receptiveness to assessment-related learning. Overall, the Rasch results show that students generally hold positive perceptions of IALWA. They view it as valuable for improving their knowledge and proficiency, moderately agree that it supports critical thinking and writing development, and are least inclined to perceive it as difficult. These findings complement the qualitative themes, demonstrating that students interpret the writing assessment not as a burden but as a meaningful component of their learning.

Taken together, the qualitative and quantitative findings reveal that students generally hold positive perceptions of IALWA in terms of its usefulness, relevance, and alignment with course objectives. Such positive perceptions contribute to positive washback, motivating learners to revise lessons, practise vocabulary, and familiarise themselves with basic sentence structures. However, perceptions of difficulty are differentiated by students' linguistic background. Those with foundational Arabic knowledge perceive the assessment as fair and aligned with instruction, while those without prior exposure find it more challenging. This indicates that perceptions of IALWA are mediated by background knowledge, shaping how intended washback is realised at the learner level. Overall, RQ1 shows that IALWA generates constructive perceptual washback, reinforcing the importance of learning and supporting foundational writing development, while also revealing variability in perceived difficulty linked to prior experience.

### 3.3 In-class Learning

RQ2 explored how the IALWA shapes students' in-class learning behaviours, particularly the strategies they adopt and the instructional practices that support their preparation for the assessment. The qualitative data reveal two major mechanisms through which IALWA shapes

students' in-class learning behaviour: effective teaching methods and assessment-driven learning strategies summarised in Table 5 below:

**Table 5**  
Themes for RQ2

Theme	Summary	Quotes
<b>Effective Teaching Methods</b>	Students valued step-by-step explanations, targeted guidance, and dummy tests that clarified expectations and reduced anxiety.	<ul style="list-style-type: none"><li>“My lecturer explains everything in detail, step-by-step.” (M)</li><li>“Lecturer gave step-by-step answering tips.” (I) “The lecturer gave a dummy and explained how to answer.” (A)</li></ul>
<b>In-Class Learning Strategies</b>	Students engaged actively in classroom revision, grammar and vocabulary review with the lecturer, and completing textbook exercises as preparation for IALWA.	<ul style="list-style-type: none"><li>“I revised with the lecturer in class.” (A)</li><li>“I did all the exercises in the textbook.” (A)</li><li>“The lecturer did a quick revision in class.” (F)</li></ul>

Students consistently highlighted the importance of clear instructional support in preparing for the writing assessment. Step-by-step explanations were especially valued, helping students understand how to construct responses and approach the test confidently. M shared, “My lecturer explains everything in detail, step-by-step,” while I echoed this by stating that the lecturer provided “step-by-step answering tips.” The use of dummy tests further reinforced students’ understanding of the writing format. As A noted, “The lecturer gave a dummy and explained how to answer.” These comments indicate that teacher mediation plays a central role in shaping constructive in-class washback. Clear modelling, targeted explanations, and guided practice help students focus on assessment-relevant skills and reduce uncertainty. IALWA also influenced the specific strategies students adopted during lessons. Many described revising vocabulary and grammar with the lecturer, completing textbook exercises, and engaging in quick in-class review sessions designed to reinforce key writing elements. A mentioned, “I revised with the lecturer in class,” while also noting that “I did all the exercises in the textbook.” F added that “The lecturer did a quick revision in class.” These behaviours demonstrate that students orient their attention toward activities perceived as directly beneficial for IALWA. The assessment therefore directs classroom effort toward targeted writing practice, vocabulary recall, and grammar reinforcement. Across both themes, the qualitative findings indicate that teaching practices such as step-by-step guidance and the use of dummy tests play a significant role in supporting students’ preparedness for the writing assessment. At the same time, students’ in-class strategies are highly assessment-aligned, with learners engaging in revision, targeted practice, and activities directly connected to the demands of IALWA. Collectively, these patterns demonstrate that the assessment generates constructive in-class learning, guiding both instructors and students toward focused engagement with the Arabic writing skills required for success in the course.

The Rasch analysis provides further insight into how students engaged with in-class learning activities related to IALWA. Table 6 presents the logits for each item, showing the relative strength of students’ endorsement of various in-class learning behaviours.

**Table 6**  
 Students' in-class learning

In Class Learning	Item	Logits
Learning strategies in class	I enjoy grammar drill	.42
	I enjoy vocabulary and grammar games	.16
	I like it when my lecturer uses videos and slides	-.10
	I like it when my lecturer focus on preparation for written test	-.40
	I like it when my lecturer gives the dummy test before the actual written test	-.61
Learning for assessment in class	I like it when my lecturer communicate with the students	-.77
	I found it difficult to use arabic keyboard while answering Introductory Arabic Language Writing Assessment (IALWA)	1.74
	I found it difficult to answer Introductory Arabic Language Writing Assessment (IALWA) because of the usage of arabic keyboard	1.74
	My lecturer gives feedback on my weaknesses	.11
	My lecturer gives feedback on my strengths	-.04
	The test format of the evaluative commentary explained by my lecturer is beneficial for me	-.69
	The test format of the written test explained by my lecturer is beneficial for me	-.77
	I got useful feedback from my lecturer	-.77

Items measuring enjoyment of grammar drills (0.42) and vocabulary or grammar games (0.16) showed moderate endorsement, suggesting that while students found these activities useful, they did not view them as central to preparing for the writing assessment. In contrast, items associated with lecturer practices received stronger endorsement, reflected in negative logits. Students found it easy to agree that they appreciated lecturer communication (-0.77), dummy tests provided before the actual assessment (-0.61), and instructional focus on written test preparation (-0.40). These low logits indicate that students highly value structured, teacher-led preparation and clear instructional guidance. A similar pattern appeared in the "Learning for Assessment in Class" subscale. The highest positive logits (1.74 for both items) were associated with difficulties using the Arabic keyboard, indicating that these challenges were not universally experienced but affected only some learners. Meanwhile, items relating to lecturer feedback and explanation of assessment formats were strongly endorsed. Students agreed readily that written test format explanations were beneficial (-0.77), evaluative commentary format explanations were helpful (-0.69), and lecturer feedback, whether on strengths (-0.04) or weaknesses (0.11), was useful. These results suggest that assessment-related scaffolding, including explicit test preparation and feedback, contributed positively to students' in-class learning. Overall, the Rasch pattern shows that students were most responsive to instructional

practices directly aligned with the assessment, while enjoyment-based activities received moderate support, and technological difficulties were endorsed the least. Overall, these findings indicate that IALWA produces constructive in-class washback, with students valuing clear guidance, dummy tests, and meaningful feedback that directly support their performance in the writing assessment.

The combined qualitative and quantitative evidence indicates that IALWA exerts a clear and positive influence on students' in-class learning behaviours. Interview findings suggest that students benefit substantially from structured instructional practices, particularly detailed explanations, the use of dummy tests, and explicit guidance on assessment requirements. These practices enhance students' understanding of what is expected in the writing assessment and encourage more focused engagement with vocabulary, grammar, and sentence construction during classroom activities. This pattern is corroborated by the Rasch analysis. Items related to lecturer communication, assessment-focused instruction, and explanation of test formats were among the most strongly endorsed, as indicated by low negative logit values. Such results suggest that students consistently perceive these instructional supports as beneficial to their learning. By contrast, activities designed to promote enjoyment, such as grammar drills and vocabulary games, received more moderate endorsement, implying that students regard them as supplementary rather than central to assessment preparation. Furthermore, the relatively high positive logits associated with difficulties using the Arabic keyboard indicate that technological challenges are experienced by some learners but do not characterise the in-class experience of the cohort as a whole.

### 3.4 Out-of-class Learning

RQ3 examined how the Introductory Arabic Language Writing Assessment (IALWA) shapes students' learning behaviours beyond the classroom, with particular attention to the strategies they adopt and the resources they use when preparing independently for the assessment. The qualitative findings provide insight into how students organise their out-of-class learning in response to IALWA, highlighting the role of peer collaboration and self-directed study practices. The themes and representative quotations related to this research question are presented in Table 7 below.

**Table 7**  
Themes for RQ3

Theme	Summary	Quotes
<b>Peer Collaboration</b>	Students frequently relied on peers for revision and practice when preparing for IALWA. Collaborative learning helped reinforce vocabulary and sentence construction.	"I revised with my friends." (A) "The three of us practiced and revised together." (A2) "We chatted in Arabic to remember words." (F)
<b>Self-Study Using Course Materials</b>	Out-of-class learning focused mainly on textbooks, lecturer notes, and structured materials perceived as directly relevant to the assessment.	<ul style="list-style-type: none"><li>• "I read the book and asked a friend if I didn't understand." (I)</li><li>• "We formed study groups and helped each other revise." (M)</li></ul>

The qualitative findings for RQ3 show that IALWA shapes students' learning behaviours outside the classroom primarily through peer collaboration and self-directed study strategies. Students' out-of-class learning is largely assessment-oriented, with activities focused on preparing for the writing assessment rather than exploratory language use. In terms of peer collaboration, many students reported relying on peers as a key strategy for preparing for IALWA. Collaborative revision was

commonly described, with students studying together, practising vocabulary, and supporting one another's understanding. A explained, "I revised with my friends," while another participant noted that "the three of us practiced and revised together." Peer interaction also extended to informal practice, with F mentioning, "We chatted in Arabic to remember words." These accounts indicate that students use peer collaboration as a practical means of reinforcing vocabulary and sentence construction required for the assessment. In addition to peer support, students engaged in individual study activities that were closely aligned with course materials. Textbooks and lecturer-provided notes were the primary resources used during out-of-class preparation. I stated, "I read the book and asked a friend if I didn't understand," highlighting reliance on structured materials and peer clarification. Similarly, M described forming study groups to support revision, noting, "We formed study groups and helped each other revise." These strategies suggest that students prioritise materials perceived as directly relevant to IALWA when studying independently.

Overall, the qualitative evidence indicates that students' out-of-class learning behaviours are strongly shaped by the writing assessment. Preparation is characterised by collaborative revision and focused use of textbooks and notes, reflecting an assessment-driven approach to independent learning. These patterns demonstrate how IALWA extends its influence beyond the classroom by guiding students toward targeted, strategic preparation outside formal instructional time. The qualitative themes were further examined through Rasch analysis to determine the relative strength of students' endorsement of various out-of-class learning behaviours. Table 8 presents the Rasch item difficulty estimates for students' out-of-class learning behaviours related to the Introductory Arabic Language Writing Assessment (IALWA).

**Table 8**  
Students' out-of-class learning

Out-of-Class Learning	Item	Logits
Learning Strategies Out-of-Class	Listen to Arabic songs	1.61
	Dictionary	1.20
	Youtube	.59
	Whatsapp/Telegram	.48
	Google	.33
	Grammar Quiz	.03
	Arabic Books	-.09
Learning for Assessment Out-of-Class	Discussion with friends	-.33
	I have discussions with friends before the tests	-.33
	I use textbook to prepare for the Introductory Arabic Language Writing Assessment (IALWA)	-.79
	The test format shared by my lecturer helps me to prepare for Introductory Arabic Language Writing Assessment (IALWA)	-.86
	I prepare when the exam is near	-.86
	The homework given by my lecturer helps me to prepare for the Introductory Arabic Language Writing Assessment (IALWA)	-.98

Items related to informal or exploratory learning strategies showed higher positive logits, indicating lower endorsement. Listening to Arabic songs recorded the highest logit (1.61), followed by the use of a dictionary (1.20), YouTube (.59), WhatsApp or Telegram (.48), and Google (.33). These

results suggest that such strategies were used by some students but were not widely or consistently adopted as primary learning approaches. In contrast, more structured activities were more readily endorsed. Grammar quizzes (.03), reading Arabic books (−.09), and discussion with friends (−.33) showed lower logits, indicating that students were more inclined to engage in these activities when studying outside the classroom. Items directly related to assessment preparation showed the strongest endorsement, as reflected in negative logit values. Students most readily agreed that homework given by the lecturer helped them prepare for IALWA (−.98), and that the test format shared by the lecturer was beneficial for preparation (−.86). Similarly, preparing more intensively when the exam was near (−.86) and using textbooks to prepare for the assessment (−.79) were among the easiest items to endorse. Discussion with friends before the test (−.33) also showed consistent agreement. The Rasch results indicate a clear distinction between general learning strategies and assessment-oriented preparation in students' out-of-class learning. While students were less likely to engage extensively with exploratory or digital resources such as songs, YouTube, or online searches, they strongly favoured structured, assessment-aligned activities such as homework completion, textbook use, lecturer-provided guidance, and peer discussion close to the test date. These findings suggest that IALWA produces assessment-driven washback beyond the classroom, shaping students' independent learning behaviours toward focused and strategic preparation.

Both the qualitative and quantitative findings indicate that IALWA exerts a strong assessment-driven influence on students' out-of-class learning behaviours. Qualitative data show that students primarily engage in peer collaboration and structured self-study using textbooks and lecturer-provided materials when preparing for the writing assessment. These strategies reflect a focus on resources perceived as directly relevant to assessment requirements. The Rasch analysis corroborates these findings, with assessment-related activities such as completing homework, using textbooks, preparing closer to the examination, and relying on lecturer-shared test formats being the most readily endorsed. Peer discussion before the test was also consistently supported. In contrast, exploratory learning strategies, including the use of digital media and informal language exposure, showed lower levels of endorsement. Together, these findings suggest that IALWA shapes students' independent learning in a focused and strategic manner, reinforcing assessment-aligned preparation beyond the classroom.

### *3.5 Mediating factors*

RQ4 explored the contextual factors that mediate the washback of the IALWA on student learning. Washback is rarely uniform; it is shaped by learner characteristics, institutional conditions, assessment format, and technological constraints. The findings highlight several key mediating factors: prior Arabic knowledge, technological demands, assessment format clarity, and instructional scaffolding. These factors influence how learners perceive IALWA and how they engage with learning tasks both inside and outside the classroom.

#### *3.5.1 Prior knowledge of Arabic*

Interviews indicate that prior exposure to Arabic significantly shaped students' experience of IALWA. Those who had learned Arabic in school described the assessment as reasonable and aligned with their expectations. They approached writing tasks with more confidence, found vocabulary recall easier, and required less time to familiarise themselves with sentence structures. In contrast, students with no prior background reported difficulties in recognising letters, forming sentences, and remembering basic vocabulary. These students also expressed higher levels of anxiety and described

needing more time for revision. This variation corresponds with the Rasch perception item "*IALWA is a difficult assessment*", which had the highest positive logit (1.87). Although not all students endorsed it, the difficulty index reflects divergent perceptions linked to students' linguistic backgrounds. Prior knowledge thus acts as a learner-based mediator, amplifying or reducing the perceived difficulty of the writing assessment.

### 3.5.2 *Technological demands*

Technological challenges emerged as another strong mediating factor. Students highlighted difficulties related to typing in Arabic, switching between keyboard layouts, and writing under time pressure in a digital environment. These challenges were reflected in the Rasch in-class items: "It is difficult for me to use the Arabic keyboard while answering IALWA" (logit = 1.74) and "It is difficult for me to answer IALWA using the Arabic keyboard" (logit = 1.74). The high positive logits indicate low endorsement overall, meaning that only some students experienced this difficulty, but for those who did, the challenge was substantial. The respondents reported spending extra time practising typing or rewriting sentences multiple times during the assessment. Internet instability during online tests also contributed to stress for certain students. These findings show that technological affordances and constraints mediate the extent and quality of washback.

### 3.5.3 *Assessment format and transparency*

Students' understanding of the assessment format strongly influenced their engagement. Qualitative data show that clear explanation of the writing test, exposure to dummy tests, and step-by-step modelling reduced anxiety and increased motivation. This aligns with Rasch findings, where items related to assessment transparency: "The written test format explained by my lecturer is beneficial" (logit = -0.77) and "The evaluative commentary format explained by my lecturer is beneficial" (logit = -0.69) were among the easiest to endorse. These negative logits indicate widespread agreement that clarity of assessment expectations promotes constructive washback. When students understand the structure and scoring of the test, they feel more prepared and direct their attention to relevant learning tasks.

### 3.5.4 *Instructional scaffolding and teacher support*

Teacher explanation, communication, and feedback strongly shaped how students perceived and prepared for the assessment. Interviewees repeatedly mentioned that lecturer interactions helped them focus, understand their weaknesses, and practise effectively. Rasch results mirror this. These items, "I like it when my lecturer communicates with the students" (logit = -0.77) and "I got useful feedback from my lecturer" (logit = -0.77) were the easiest to endorse, indicating that students viewed teacher support as central to their success. Instructional scaffolding therefore acts as a pedagogical mediator, enhancing positive washback by ensuring alignment between teaching and assessment.

Overall, the findings show that the washback of IALWA is mediated by a combination of learner characteristics, technological constraints, assessment transparency, and pedagogical support. Students with prior Arabic knowledge and access to clear instructional guidance experience more positive and manageable washback, whereas learners without such background or those facing technological challenges may experience greater difficulty. These mediating factors help explain why washback is not uniform across students and why perceptions and learning behaviours vary.

## 4. Discussion

This study examined how the IALWA shapes student learning in a Malaysian tertiary context. Guided by established washback frameworks [1,12,13], the discussion integrates evidence of intended washback with learners' actual experiences across four dimensions: perceptions, in-class learning, out-of-class learning, and mediating contextual factors. In line with contemporary washback research, the focus is not merely on whether washback occurs, but on how it is generated and mediated [4]. The findings suggest the presence of locally constructive washback within this introductory Arabic writing course, where assessment demands aligned with instructional focus and learner strategies. However, this alignment should be interpreted as context-specific rather than indicative of broader systemic effects. The present study did not examine institutional capacity, resource availability, or technological infrastructure beyond the immediate course context. As such, the feasibility and scalability of proposed pedagogical adjustments such as additional workshops or alternative assessment formats cannot be assumed. Future research involving multiple institutions and programme-level analyses would be necessary to evaluate the practicality of such interventions.

### 4.1 Intended and Actual Washback

Document analysis indicates that the intended washback of IALWA is to reinforce foundational Arabic writing skills at the CEFR A1 level, with emphasis on basic sentence construction, controlled vocabulary use, and functional written communication. The writing assessment serves as a structured checkpoint for measuring students' mastery of syllabus-aligned linguistic content. The findings demonstrate a strong correspondence between this intended focus and learners' actual behaviours. Students' perceptions, classroom engagement, and independent study practices consistently centred on developing core writing components targeted by the assessment. This alignment reflects constructive washback, whereby assessment demands successfully guide both instructional focus and learner effort toward relevant learning outcomes [1,3]. Similar patterns have been reported in Malaysian washback research on MUET, where students' learning behaviours aligned closely with perceived assessment priorities [9]. Taken together, these findings suggest that when assessment design and instructional practices are coherently aligned, washback can function as a productive learning mechanism even in course-level assessments.

### 4.2 Perceptual Mechanism

Students generally perceived IALWA as important for improving their Arabic proficiency, vocabulary knowledge, and writing skills. Rasch results reinforced this pattern, with strong endorsement of items related to assessment importance and learning value. These findings indicate that IALWA effectively communicates what is worth learning, supporting Green's [14] view of perception as a key cognitive pathway through which washback operates. However, perceptions of difficulty were not uniform. Students with prior exposure to Arabic tended to view the assessment as manageable, whereas those without such background reported greater challenge. This variation reflects learner-related mediation, as conceptualised by Watanabe [15] where prior knowledge and experience shape how assessment demands are interpreted. Similar perceptual differentiation has been observed in MUET contexts, where learners' beliefs about assessment importance and difficulty influenced motivation and engagement [9]. These findings underscore the role of perception as a central mechanism through which washback influences learner behaviour.

#### **4.3 In-Class Learning Mechanism**

IALWA also exerts a clear influence on in-class learning by shaping instructional practices and student engagement. Qualitative findings indicate that students respond positively to assessment-focused teaching strategies, including step-by-step explanations, explicit modelling, and the use of dummy tests. These practices clarify assessment expectations and direct classroom attention toward grammar, vocabulary, and sentence construction. Rasch results corroborate this pattern, with strong endorsement of items related to lecturer communication, feedback, and explanation of test formats. This convergence reflects teacher-mediated washback, as described by Watanabe [15], where instructional decisions are shaped by assessment demands. Activities perceived as directly supporting assessment performance were prioritised, while enjoyment-oriented activities received more moderate endorsement. This pattern aligns with Green [14] behavioural pathway, whereby learners allocate effort according to perceived assessment relevance. Similar tendencies have been reported in broader washback research, where learners adjust what they focus on more readily than how they learn in response to assessment pressures [4].

#### **4.4 Out-of-Class Learning Mechanism**

Beyond the classroom, IALWA continues to shape students' independent learning behaviours. Qualitative evidence shows that students primarily rely on peer collaboration and structured self-study using textbooks and lecturer-provided materials. These strategies indicate an assessment-oriented approach to independent learning. Rasch analysis supports this interpretation, with assessment-related activities such as homework completion, textbook use, preparation closer to the examination, and reliance on lecturer-shared test formats being the most readily endorsed. In contrast, exploratory strategies such as listening to Arabic songs or using online media were less strongly endorsed. This distinction suggests that students differentiate between general language exposure and assessment-relevant preparation, prioritising the latter. Such patterns are consistent with findings from both Malaysian and international washback research, which show that assessment demands often structure learners' out-of-class engagement in strategic and selective ways [9,14].

#### **4.5 Mediating Contextual Factors**

Despite the largely constructive washback observed, the findings also highlight the role of mediating contextual factors. Technological challenges, particularly difficulties with Arabic keyboard input and internet connectivity, affected a subset of learners. These challenges did not characterise the entire cohort but nonetheless moderated the assessment experience for some students, potentially increasing cognitive load and anxiety. This finding reinforces the view that washback is filtered through both micro-level learner conditions and broader systemic constraints [4,15]. Even well-designed assessments may produce uneven effects when technological readiness and linguistic background vary across learners. Similar concerns regarding preparation gaps and uneven institutional support have been documented in MUET washback studies [9], suggesting that contextual mediation is a persistent issue in Malaysian assessment settings. Addressing such constraints through targeted support and early familiarisation may enhance both equity and learning effectiveness.

## 5. Conclusion

This study examined the mechanisms through which the IALWA shapes student learning within a Malaysian tertiary context. The findings indicate that IALWA generates predominantly constructive washback by directing students' attention to essential linguistic features, strengthening their engagement with classroom instruction, and encouraging focused revision outside class. Students generally perceived the assessment as meaningful and aligned with course expectations, particularly in reinforcing foundational writing skills at the CEFR A1 level. Nonetheless, the findings also reveal variation in how students experience the assessment. Those with prior Arabic knowledge report greater ease and confidence, whereas students without such background encounter more difficulty. Technological factors, especially challenges in typing Arabic and navigating online test environments further mediate learners' experiences, demonstrating that washback is influenced not only by assessment design but also by learner readiness and contextual constraints. Several pedagogical implications arise from these findings. Instructors should provide enhanced scaffolding for beginners through explicit modelling of sentence construction, guided practice, and step-by-step demonstrations. Maintaining high assessment transparency through clear explanation of test format, dummy tests, and exemplars is essential, as these practices consistently support positive washback. Given the technological challenges reported, early and sustained training in Arabic keyboard usage should be integrated into the course to ensure that digital demands do not impede writing performance. In addition, formative writing activities should be embedded throughout the semester to promote continuous engagement rather than last-minute exam preparation.

Based on these insights, this study recommends that course designers develop supplementary writing booklets, vocabulary banks, and model-sentence resources aligned with IALWA. Additional support mechanisms, such as targeted workshops for students with no prior Arabic exposure would help mitigate disparities in readiness and confidence. Future research should expand the participant pool, incorporate classroom observations, and explore alternative assessment formats (e.g., portfolios or scaffolded writing tasks) to examine how different assessment designs produce distinct washback profiles. By addressing these pedagogical and structural considerations, institutions can further optimize the teaching and assessment of introductory Arabic writing, ensuring that learning outcomes remain equitable, meaningful, and aligned with the goals of beginner-level Arabic instruction.

This study contributes to washback research by extending empirical insights from high-stakes, standardized assessments such as MUET to a course-level Arabic writing assessment in a Malaysian tertiary context. While prior studies, [9], have demonstrated how MUET shapes learner perceptions, instructional practices, and preparation behaviours, the present findings show that similar washback mechanisms operate even in lower-stakes, skill-specific assessments such as IALWA. It is noteworthy that this study demonstrates that IALWA produces largely constructive washback through aligned perceptual, instructional, and behavioural mechanisms. Students' perceptions of assessment importance guided their engagement with writing-related skills, while lecturers' assessment-focused instructional practices further reinforced targeted learning. Consistent with contemporary washback theory [4,14,15], washback was shown to be mediated by learner background and contextual conditions, particularly prior language exposure and technological readiness. By situating Arabic writing assessment within a mechanism-based washback framework, this study advances the argument that washback is not exclusive to high-stakes testing but is equally relevant in classroom-based assessments when design, instruction, and learning outcomes are coherently aligned. Based on the patterns observed in this study, several pedagogical considerations may be explored, such as providing early familiarisation with Arabic keyboard use or offering structured exemplars of

assessment tasks. These suggestions are exploratory and would require further empirical investigation before wider implementation.

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