Research Article

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Learner beliefs about vocabulary teaching in secondary ESL classrooms: a proficiency and grade-level analysis

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Abstract: Learner beliefs are widely acknowledged as key to the success of second language learning and teaching. Despite extensive research on English as a second language (ESL) learners' beliefs, few studies have focused on vocabulary teaching. Our study addresses this gap by surveying 556 secondary school students in Hong Kong to explore their beliefs about various instructional practices and activities in vocabulary teaching, and how these beliefs vary with English proficiency and grade levels. The findings reveal that students valued diverse instructional methods, including specific strategies and engaging activities like games. However, they generally lacked autonomy in learning vocabulary, showing a tendency to rely on teacher instruction. The analysis also suggests that the students' beliefs varied according to their English proficiency and grade levels. More proficient learners preferred strategy-focused instruction, while senior secondary students favoured more explicit instruction from teachers. Open-ended responses underscored the multifaceted and nuanced nature of students' beliefs about vocabulary teaching. The study highlights the importance of promoting autonomous vocabulary learning, balancing engaging and conventional activities, and tailoring instruction to accommodate diverse needs across different proficiency and grade levels. We also provide insights for future studies on learner beliefs about vocabulary teaching.

Keywords: English as a second language; learner beliefs; vocabulary teaching; grade-level difference; language proficiency

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1 Introduction

Learner beliefs play a key role in second language (L2) learning and teaching as they shape learners' perceptions, decisions, and behaviour both in and beyond the classroom (Kalaja et al. 2017). Researchers have widely recognised that beliefs significantly influence the process and product of language learning, impacting learners' choice of language learning strategies (Tang and Tian 2015), motivation, and subsequent effort (Yashima et al. 2017). Learner beliefs also contribute to the effectiveness of language teaching because they influence learners' receptivity to teaching practices, affecting students' participation and performance (Brown 2009; Pawlak 2021; Peacock 1998). It is thus important to examine learner beliefs about language teaching to help teachers obtain a clear understanding of what learners think (Fisher 2013) and address any incongruence between their beliefs and those of their students, thus avoiding potential misinterpretation of teachers' expectations and intentions that could result in passive or even active resistance from students (Wan et al. 2011). To date, researchers have mostly explored learner beliefs about language teaching in general (e.g., Brown 2009; Nhem 2019), grammar instruction (e.g., Loewen et al. 2009; Pawlak 2021), pronunciation instruction (e.g., Nguyen et al. 2021; Pawlak et al. 2015), and assessment-related issues (Liao et al. 2018; Wallace and Ng 2022) without due attention on their beliefs about vocabulary teaching. Current research on vocabulary teaching primarily focuses on the teaching perspective, including effective methods for vocabulary instruction and characteristics of activities that promote vocabulary development (see, e.g., Nation 2022; Schmitt and Schmitt 2020; Zwier and Boers 2023, and Section 2 below). However, few studies have investigated what learners think about vocabulary teaching and how they perceive it.

Exploring vocabulary teaching from the learners' perspective while acknowledging diversity in proficiency and grade level is crucial for several reasons. First, this learner-centred approach provides the opportunity to better align teaching with learning, addressing the considerable challenges students face as they acquire new vocabulary (Chung et al. 2024). By focusing on learners' beliefs, the approach has the potential to enhance pedagogical effectiveness and empower teachers to strengthen support for learning (Ryan et al. 2023). Second, the effectiveness of vocabulary teaching depends on multiple factors, with no single best method for it (Schmitt and Schmitt 2020). Due to the lack of clear guidelines, ESL teachers often lack confidence in vocabulary teaching as they need to rely on their own beliefs and the teaching materials available (Chung 2018). Exploring learner beliefs provides teachers with insights to reflect on their teaching methods and make necessary adjustments to accommodate their students' needs (Chung 2023). Third, learners' understanding of

vocabulary development is influenced by their proficiency levels, linguistic demands, and progress during their secondary education (Chung and Fung 2023). Without a clear picture of learner beliefs about vocabulary teaching across different proficiency and grade levels, teachers may struggle to create an inclusive environment conducive to effective vocabulary acquisition. Therefore, our investigation into learners' perspectives on vocabulary teaching seeks to fill the gap in existing research and shed light on practices that enable teachers to reflect on their practices.

2 Key issues about vocabulary teaching

Vocabulary is vital to language acquisition and academic pursuits (Nation 2022). Word knowledge not only contributes to grammar acquisition (Bates and Goodman 1997), but it also affects comprehension and communication (Ha 2021; Uchihara and Saito 2019; Zhang and Zhang 2022). Given its importance, vocabulary researchers have devoted considerable attention to exploring issues regarding vocabulary teaching. Before proceeding, it is important to define "vocabulary teaching" in our work. Although "vocabulary teaching" can be understood as "the teacher deliberately teaching vocabulary" (Nation 2022, p. 93), we adopt a broader perspective. We contend that intentional learning through instruction significantly contributes to vocabulary development and that teachers are required to plan a wide variety of activities to foster this learning (Hunt and Beglar 2002). Therefore, in our work, "vocabulary teaching" encompasses not only the educational practice of providing explicit vocabulary instruction but also the integration of educational activities that promote vocabulary development. For the purposes of our study, we use the term "vocabulary instruction" to describe the deliberate and targeted teaching of vocabulary, which involves pedagogical decisions about the selection of words, the teaching methods, and the actual teaching that enables students to develop vocabulary learning strategies, among other aspects. Additionally, "vocabulary activities" are designed to complement formal instruction, offering learners a range of educational experiences that help them acquire new vocabulary, reinforce existing knowledge, and evaluate their vocabulary learning.

Despite the complex nature of vocabulary teaching, two key issues frequently addressed in reviews by leading scholars include the need for effective teaching methods and a better understanding of the characteristics of activities that promote vocabulary development (see, e.g., Nation 2022; Schmitt and Schmitt 2020; Zwier and Boers 2023). These issues have garnered attention, likely because vocabulary instruction has not been prioritised in many L2 classrooms (Newton 2020). Nation (2022) observed that the value of dedicating time to vocabulary teaching has been questioned; however, an explicit focus on vocabulary during class can lead to

"greater and faster gains, with a better chance of retention" (Schmitt and Schmitt 2020, p. 162). This implies that teachers should determine instructional priorities among various options to assist L2 learners in achieving their diverse vocabulary goals.

Years of research on vocabulary teaching have led researchers to conclude that effective teaching is not limited to a single correct approach, but rather depends on a combination of principles (see, e.g., Barcroft 2015; Nation 2022; Schmitt and Schmitt 2020). Some of these principles include: (1) carefully planning vocabulary teaching to focus learners' time on items relevant to their needs and prioritising the acquisition of high-frequency words to maximise learning efficiency (Chung and Wan 2025; Newton 2020; Webb and Nation 2017); (2) ensuring learners understand that knowing a word involves various aspects of word knowledge, including form, meaning and use (Chung and Fung 2023; Nation 2022; Schmitt 2010); (3) employing a variety of instructional techniques and resources, such as providing clear and concise explanations of meaning, giving repeated attention to words, and using L1 translation (Barcroft 2020; Joyce 2018; Nation 2022); (4) teaching vocabulary learning strategies (VLS) to foster independent vocabulary learning (Graves et al. 2012; Gu 2020; Prichard and Atkins 2021); and (5) integrating both deliberate and incidental vocabulary learning activities to actively engage learners and help them achieve their learning goals (Chung and Newton 2024; Newton 2020; Zwier and Boers 2023).

Although the principles of vocabulary teaching are well established, it is important to note that the effectiveness of vocabulary teaching is influenced by a wide range of factors (Schmitt and Schmitt 2020). Textbooks and syllabuses often lack clear descriptions and guidelines for vocabulary teaching (Schmitt and Schmitt 2020), forcing teachers to rely on their own beliefs and the materials at hand (Chung 2018). This reliance can create disparities between the teaching methods used and their students' expectations or preferences (Wan et al. 2011), potentially creating tensions and negatively affecting learning outcomes (Ha and Nguyen 2021). As learner beliefs play a pivotal role in students' engagement and learning, teachers should understand these beliefs and consider students' perspectives when making pedagogical decisions to ensure effective vocabulary teaching and learning.

3 Learner beliefs about vocabulary teaching

Learner beliefs, which can be broadly conceptualised as a set of propositions that learners hold about the nature and the task of language learning and teaching (Kalaja et al. 2017), can be evaluative and subjective as they are largely shaped by previous learning experiences and other sociocultural factors (Kang and Ahn 2019). Further, these beliefs may be tenacious and stable while also being highly idiosyncratic and

context-specific, varying across different groups of learners and learning situations (Brown 2009; Tang and Tian 2015; Yashima et al. 2017). For the present study, beliefs about vocabulary teaching are defined as the preconceived notions and opinions on "what should be done" and what "should be the case" (Gao and Ma 2011, p. 329) regarding specific instructional strategies and vocabulary activities. These beliefs reflect learners' preferences and propositions for how vocabulary should be taught and learned. Thus, they offer insights into learners' perspectives on effective vocabulary development and can guide teachers' pedagogical decisions, influencing aspects such as the selection of target vocabulary, the methods of vocabulary instruction, and the types of vocabulary activities employed.

Although researchers maintain that learner beliefs can influence the effectiveness of learning (Ha and Nguyen 2021; Kalaja et al. 2017), and there is a growing body of research on learner beliefs about L2 vocabulary learning and VLS (e.g., Amiryousefi 2015a; Chung and Fung 2023; Fan 2003), few studies have investigated learner beliefs about vocabulary teaching. In one of these few, Amiryousefi (2015b), sampled 224 Iranian tertiary-level students and 68 English teachers and found that students valued explicit vocabulary instruction and considered it necessary for teachers to cover high- and low-frequency words while fostering the development of VLS. The students also believed that visual aids such as pictures and videos were effective for vocabulary development and preferred lexical instruction to be delivered using simple language in English, avoiding the use of L1 translation.

Among the few studies on learner beliefs about vocabulary activities, both Hawkey (2006) and Peacock (1998) focused on beliefs and perceptions about language learning and teaching activities in general, asking students (and teachers) to rank or rate a list of class activities based on their perceived importance or usefulness in facilitating language development. Results revealed that students generally preferred traditional, teacher-led activities that focused on form and accuracy, such as drills, over student-centred, communicative activities like group work and selfdiscovery of errors. However, these studies did not explore the perceived usefulness of specific types of activities. Due to the multitude of activities and tasks available to foster vocabulary teaching and learning in the English language classroom (Nation 2022; Ur 2012; Zwier and Boers 2023), further research is needed to identify which activities, such as dictation, drama, movie appreciation, reading, and games, are most valued by students for vocabulary acquisition. Teachers should also promote quality education by considering the learners' proficiency and grade level, which have been found to influence their beliefs and perceptions regarding language teaching (Brown 2009; Chung et al. 2024; Wan et al. 2011). For example, regarding language proficiency, Wan et al. (2011) found that higher-proficiency Chinese university students expected more support from their teachers. Regarding grade level, Brown (2009) found that freshmen at a university in the United States strongly preferred using the target language in class but were less enthusiastic about receiving explicit error correction compared to sophomores. Despite the potential impact of proficiency and grade level on learner beliefs in general, the relationship between these two variables and learner beliefs about vocabulary teaching has been largely neglected. To the best of our knowledge, no studies have explored how learner beliefs about vocabulary teaching vary across proficiency and grade level, particularly in secondary school settings.

4 Significance of the study

The foregoing literature review has highlighted several research gaps and the need to examine learner beliefs regarding various aspects of vocabulary instruction. First, despite the insights from Amiryousefi's (2015b) study, many important aspects that have been identified in the literature (e.g., Nation 2022), such as the selection of target words, the use of repetition, and preferences for learning materials, have not been investigated. Regarding beliefs about vocabulary activities, very little is known about how learners perceive different types of classroom activities for vocabulary development. Second, although research has shown that proficiency and grade level can influence learner beliefs and perceptions about second and foreign language teaching in general, few studies, if any, have focused on how these two variables may affect learners' beliefs about L2 vocabulary teaching. Third, most studies on learner beliefs (e.g., Amiryousefi 2015a, 2015b; Fan 2003; Peacock 1998) have been conducted in tertiary settings, largely ignoring secondary school learners' beliefs about vocabulary teaching. To address these research gaps, in the present study, we explore learners' beliefs about vocabulary teaching in a secondary school setting guided by the following research questions:

RQ1: What are students' beliefs about vocabulary instruction and activities?

RQ2: How do proficiency and grade level affect students' beliefs about vocabulary instruction and activities?

5 Methodology

The study was part of a larger project that examined both learners' and teachers' beliefs, as well as teachers' practices regarding vocabulary teaching and learning. Given the scope of this paper, we focused only on our participants' beliefs about

vocabulary instruction and activities. We used a convergent mixed-methods design comparing quantitative and qualitative findings (Creswell and Plano Clark 2018).

5.1 Research context and participants

The study was conducted in a secondary school in Hong Kong that emphasised expanding students' English vocabulary. Originally, the study included 572 participants, ranging from secondary one (S1) to secondary five (S5) students, with an age range of approximately 12-16 years old. However, 16 of them did not participate in the school examination, resulting in a final sample of 556 participants (320 female and 236 male). The final sample included 94 S1, 117 S2, 109 S3, 119 S4, and 117 S5 students. These students exhibited varying English proficiency levels, categorised as low (n = 96), mid (n = 378), and high proficiency (n = 82). For details on how proficiency levels were determined, see Section 5.4.

5.2 Research instrument

We developed an online questionnaire in Chinese and English and administered it to the student participants to gather both quantitative and qualitative data. The questionnaire was developed based on key issues identified in previous research on L2 vocabulary teaching in the works of Nation (2022), Schmitt and Schmitt (2020), and Thornbury (2002), as well as teachers' opinions on vocabulary teaching and learners' common beliefs. It had two sections. The first part consisted of 12 items, 10 four-point Likert-scale items (1-strongly disagree and 4-strongly agree) and two open-ended items that focused on students' beliefs about vocabulary instruction. The Likert-scale items (items 1-10) included questions about the selection of target vocabulary, the suitability of using L1 translation, various instructional techniques and resources, and the importance of strategy-based vocabulary instruction (Cronbach's $\alpha = 0.650$). The two open-ended questions inquired about the best way for English teachers to facilitate the understanding of an unfamiliar word's meaning and its long-term acquisition. The second part of the questionnaire examined students' beliefs about eight types of classroom activities for vocabulary building (Items 11a-11h) (Cronbach's α = 0.760) and students' beliefs about the use of vocabulary activities (Items 12–16) (Cronbach's α = 0.606) on a four-point Likert scale. Two open-ended questions were also included to gather students' justifications for the activities they liked or disliked for vocabulary learning and identify other preferential activities. The questionnaire was piloted on a group of junior (n = 25) and senior secondary students (n = 26) at another school resulting in new vocabulary activities being identified which were added to the questionnaire; the category "no idea" was also added to avoid forcing a choice upon respondents when they had no opinion.

5.3 Procedures

One week before data collection, a briefing was conducted to introduce the guidelines for administering the questionnaire to all teachers whose students were to participate in the study. To ensure a high response rate and address any queries, teachers were instructed to bring their students to the school's computer room during an English language lesson to complete the online questionnaire. Students were informed of their right not to participate in the study, and their consent was obtained electronically. Each student was given approximately 40 minutes to complete the questionnaire. The students' English scores from the school examination were obtained from an English panel head to provide data on their English proficiency levels for statistical analysis.

5.4 Data analysis

The questionnaire responses and English proficiency data were analysed using SPSS 26.0. For each part of the questionnaire that covered students' beliefs about vocabulary teaching and activities, descriptive statistics provided a general picture. Subsequently, a principal component analysis (PCA) was conducted on each section of the questionnaire to identify the different belief components. Based on the identified components, follow-up analyses were performed to examine how students with different proficiency levels (low, mid, high) and in different grades (\$1 to \$5) differed in their beliefs. The categorisation of proficiency levels was based on students' English examination scores for each grade, as explained below. As the examination papers were different for each grade, the scores were not directly comparable across the five grades. Therefore, z-scores were calculated for individual students in their respective grades to provide a standardised examination score for each of them. Students with z-scores less than -1 were classified as having low proficiency, those between -1 and 1 as mid-proficiency, and those higher than 1 as high proficiency. Thus, a student who was considered to have high proficiency would be a high achiever in their cohort (see Chung and Fung 2023 for details). To determine whether there were significant differences in beliefs among students with different proficiency and grade levels, 3 × 5 mixed ANOVAs were conducted, followed by *post-hoc* Bonferroni tests. The component scores generated by the PCA were used as the dependent variables. Kruskal-Wallis tests followed by Mann-Whitney U tests were performed for components that were not normally distributed. For the open-ended questions, we identified and categorised themes, which largely aligned with the content of each question. The quantitative and qualitative data results were compared, allowing themes to emerge; representative excerpts were extracted from the open-ended responses and triangulated with the quantitative findings, resulting in a better understanding of the learners' beliefs.

6 Results

6.1 Learner beliefs about vocabulary instruction

Table 1 shows the descriptive statistics of the students' beliefs about various aspects of vocabulary instruction. Over 80 % of the students showed agreement that teachers should encourage the guessing of word meanings (item 9, M = 3.17) and incorporate the teaching of VLS into lessons (item 10, M = 3.12). Around three-quarters of the students tended to agree with the importance of using word repetition (item 6, M = 3.00) and visual aids (item 8, M = 3.02) in vocabulary instruction. However, there were mixed beliefs regarding vocabulary selection and coverage. While over 80 % of students indicated teachers should cover as many unknown words as possible (item 1, M = 3.13), students held differing opinions on whether they should be given autonomy in selecting the words to be taught as part of their vocabulary instruction (item 5, M = 2.64). Approximately half of the students indicated they should always be given the chance to choose the words they want to learn, while about one-third held the opposite view. Whether to use the L1 in vocabulary instruction was also somewhat mixed (item 7, M = 2.31), with 36 % of students indicating L1 use should be avoided while 55 % indicated it should not. More than two-thirds of the students tended to disagree with item 4 (M = 2.08), signalling that they believed teachers should use a variety of resources alongside textbooks and storybooks when teaching vocabulary. Finally, over 70 % of the students disagreed with item 2 (M = 2.02) and item 3 (M = 2.05), indicating that addressing both the meaning and the usage of the target words was considered essential in vocabulary instruction.

To identify the underlying components of students' beliefs about vocabulary instruction, we conducted a PCA with varimax rotation (Table 2). The analysis resulted in the extraction of three components with eigenvalues greater than one, explaining 56.10 % of the total variance. Component 1, labelled "learner agency," highlighted the proactive role students indicated they should play in managing their own learning within the context of vocabulary instruction. Learner agency is linked to students' awareness of their responsibility for their actions (Matsumoto 2021) and their ability to act independently and make their own choices (Manyukhina and

Table 1: Students' beliefs about vocabulary instruction (Cronbach's Alpha: 0.650).

	Questions	Mean	S	Strongly disagree (1)	Strongly Disagree (2) Agree (3) agree (1)	Agree (3)	Strongly agree (4)	No idea
				n (%)	(%) u	u (%)	n (%)	(%) u
2	My English teacher(s) should teach as many vocabulary items as possible.	3.13 0.63	0.63	8 (1.4)	50 (9.0)	50 (9.0) 336 (60.4) 133 (23.9)	133 (23.9)	29 (5.2)
42	It is fine for my English teacher(s) to introduce a new word to me without	2.02	0.82	151 (27.2)	248 (44.6)	248 (44.6) 120 (21.6)	22 (4.0)	15 (2.7)
	explaining its meaning(s).							
63		2.05 0.79	0.79	133 (23.9)	258 (46.4)	258 (46.4) 123 (22.1)	19 (3.4)	23 (4.1)
	explaining its usage.							
%		2.08	0.74	110 (19.8)	271 (48.7)	271 (48.7) 130 (23.4)	12 (2.2)	33 (5.9)
	storybooks to teach vocabulary.							
65		2.64	0.68	20 (3.6)	162 (29.1)	162 (29.1) 252 (45.3)	33 (5.9)	89 (16.0)
90		y 3.00	0.73	17 (3.1)	85 (15.3)	297 (53.4) 120 (21.6)	120 (21.6)	37 (6.7)
	in class to aid my memory.							
47		5 2.31 0.90	0.90	100 (18.0)	206 (37.1)	206 (37.1) 152 (27.3)	53 (9.5)	45 (8.1)
	explain its meaning(s) in class.							
80	It is important for my English teacher(s) to use visual aids to illustrate the	3.02 0.61	0.61	9 (1.6)	60 (10.8)	60 (10.8) 334 (60.1)	90 (16.2) 63 (11.3)	63 (11.3)
	meaning(s) of a vocabulary item.							
60	My English teacher(s) should always encourage me to guess the meaning(s) of	f 3.17 0.59	0.59	5 (0.9)	39 (7.0)	39 (7.0) 339 (61.0) 135 (24.3)	135 (24.3)	38 (6.8)
	an unknown word before explaining its meaning(s).							
4	Q10 My English teacher(s) should teach me how I can expand my vocabulary on my	y 3.12 0.61	0.61	8 (1.4)	42 (7.6)	42 (7.6) 329 (59.2) 120 (21.6) 57 (10.3)	120 (21.6)	57 (10.3)
	own.							

Table 2: Principal Component Analysis loadings of students' beliefs about vocabulary instruction.

	Questions		Components	<u> </u>
		Learner agency	Explicit vocabulary instruction	Strategy use
Q2	It is fine for my English teacher(s) to introduce a new word to me without explaining its meaning(s).	0.862		
Q3	It is fine for my English teacher(s) to introduce a new word to me without explaining its usage.	0.853		
Q4	It is good enough for my English teacher(s) to use only textbooks and/or storybooks to teach vocabulary.	0.713		
Q5	My English teacher(s) should always let me choose the words I want to learn.	0.529		
Q6	It is important for my English teacher(s) to teach me the same word repeatedly in class to aid my memory.		0.691	
Q1	My English teacher(s) should teach as many vocabulary items as possible.		0.623	
Q8	It is important for my English teacher(s) to use visual aids to illustrate the meaning(s) of a vocabulary item.		0.499	
Q7	My English teacher(s) should avoid using the Chinese translation of a word to explain its meaning(s) in class.			0.699
Q10	My English teacher(s) should teach me how I can expand my vocabulary on my own.			0.690
Q9	My English teacher(s) should always encourage me to guess the meaning(s) of an unknown word before explaining its meaning(s).			0.640
	Eigenvalue	2.407	1.628	1.575
	Variance explained	24.07 %	16.28 %	15.75 %
	Cronbach's Alpha for reliability	0.722	0.454	0.457

Notes: 1. The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.708, and Bartlett's test of sphericity showed a significant result (p < 0.001), indicating the factorability of the matrix. 2. In determining the number of components to be extracted, Kaiser's criterion of a minimum eigenvalue of 1.0 was used.

Wyse 2019). Therefore, this component included items that minimised the teacher's role in covering various aspects of vocabulary knowledge (items 2 and 3) and selecting vocabulary items outside the textbooks (item 4) while emphasising the students' role by allowing them to choose the words they wanted to learn (item 5). Component 2, labelled "explicit vocabulary instruction," promoted the intentional learning of lexical items (Schmitt and Schmitt 2020). It contrasted with Component 1 by embodying a teacher-centred approach that emphasised the direct teaching of vocabulary. Component 2 focused on whether teachers should teach as many vocabulary items as possible (item 1), use repetition as a memory aid (item 6), and employ visual aids to illustrate word meanings (item 8). This component underscored the need for teachers to deliver structured and visually supported instruction to enhance the effectiveness of vocabulary teaching. Component 3, "strategy use" encompassed items that advocated for avoiding direct translations (item 7), encouraging students to guess word meanings independently before receiving explanations (item 9), and equipping students with strategies for autonomous vocabulary learning (item 10). In essence, component 3 sought to uncover the participants' beliefs about the importance of developing strategies that guide students to expand their vocabulary.

After identifying the three components, we performed two-way 3×5 ANOVAs/ Kruskal-Wallis H Tests, followed by a series of *post-hoc* tests to examine whether students with different proficiency and grade levels held significantly different beliefs (Table 3). Results revealed no significant main effect for proficiency (F = 0.611, p = 0.543, partial $\eta^2 = 0.003$) or grade level (F = 0.949, p = 0.436, partial $\eta^2 = 0.010$) on component 1, "learner agency." Additionally, no significant interaction effect was found (F = 1.635, p = 0.113, partial $\eta^2 = 0.035$). For component 2, "explicit vocabulary instruction," no significant effect was found for proficiency (F = 0.071, p = 0.931, partial $\eta^2 = 0.000$). However, as the component scores were not normally distributed for grade level, we ran a Kruskal-Wallis H Test, which showed that students at different grade levels held significantly different beliefs (H(2) = 9.607, p = 0.048, partial $\eta^2 = 0.015$). *Post-hoc* Mann-Whitney U tests revealed that S5 students held significantly more positive beliefs towards "explicit vocabulary instruction" in vocabulary lessons than their S1 (p = 0.006) and S3 (p = 0.040) peers. A similar trend was observed in S4 students compared to their S1 peers (p = 0.049).

Regarding component 3, "strategy use," there was no significant main effect for grade level ($F=1.870,\ p=0.115,\ partial\ \eta^2=0.020$). However, a main effect for proficiency was found ($F=7.949,\ p<0.001,\ partial\ \eta^2=0.042$), indicating that students' beliefs significantly differed between proficiency groups. *Post-hoc* analyses revealed that high-proficiency students viewed vocabulary teaching that focused on strategies more favourably than mid- (p=0.013) and low- (p=0.003) proficiency students. Additionally, there was a significant interaction effect ($F=2.367,\ p=0.017,\ partial\ \eta^2=0.050$). Bonferroni analyses revealed that among S2 students, those who reached a high proficiency level held significantly more favourable beliefs than their mid-proficiency (p=0.013) and low-proficiency (p=0.009) peers.

In addition to providing responses to the Likert-scale items, students were also asked to share their perspectives on how teachers can effectively promote vocabulary instruction in the English language classroom. Several key themes emerged from our coding of the students' responses. First, students emphasised the importance of visualisation in vocabulary instruction. They suggested that pictures, videos, and drawings can help them understand the meanings of unfamiliar words and

 Table 3:
 Effects of proficiency and grade levels on students' beliefs about vocabulary instruction.

Components	Profi	Proficiency levels	ָ 	Grade levels		Proficiency X Grade levels	de levels
	ANOVA	Post-hoc Bonferroni ANOVA/ Kruskal- Wallis	ANOVA/ Kruskal- Wallis	Post-hoc Bonferroni/ Mann-Whitney U	ANOVA	Follow-up simple effects analysis	Follow-up simple Post-hoc Bonferroni effects analysis
1 Learner agency	F: 0.611 p: 0.543 n ² :0.003	N/A	F: 0.949 p: 0.436 n ² : 0.010	N/A	F: 1.635 p: 0.113 n ² : 0.035	N/A	N/A
2 Explicit vocabulary instruction	F. 0.071 p: 0.931 ŋ ² : 0.000	N/A	H; 9.607 p: 0.048* ŋ²: 0.015	S1=S2 (p = 0.064) S1=S3 (p = 0.343) S1 <s4 (p="0.049*)<br">S1<s5 (p="0.006**)<br">S2=S3 (p = 0.293) S2=S4 (p = 0.990) S2=S5 (p = 0.381) S3=S4 (p = 0.232) S3-S5 (p = 0.040*) S4=S5 (p = 0.301)</s5></s4>	,		
3 Strategy use	F: 7.949 p: <0.001*** ŋ²: 0.042	F: 7.949 L = M (p = 0.561) p: <0.001*** L < H (p = 0.003**) rg²: 0.042 M < H (p = 0.013*)	F: 1.870 p: 0.115 η ² : 0.020	N/A	F: 2.367 p: 0.017* ŋ²: 0.050	<u>S1</u> F: 1.657 p: 0.200 η ² : 0.059	N/A
						<u>S2</u> F: 5.457 p: 0.006** n ² : 0.144	L = M (p = 1.000) L < H (p = 0.009**) M < H (p = 0.013*)

Table 3: (continued)

Components	Pro	Proficiency levels	9	Grade levels		Proficiency X Grade levels	de levels
	ANOVA	Post-hoc Bonferroni ANOVA/ Post-hoc Kruskal- Bonferro Wallis Mann-W	ANOVA/ Kruskal- Wallis	ANOVA/ <i>Post-hoc</i> Kruskal- Bonferroni/ Waliis Mann-Whitney U	ANOVA	Follow-up simple effects analysis	Follow-up simple Post-hoc Bonferroni effects analysis
						<u>S3</u>	N/A
						F: 1.431	
						p: 0.246	
						ຖ ² : 0.038	
						<u>S4</u>	N/A
						F: 2.726	
						p: 0.071	
						ŋ²: 0.062	
						<u>S5</u>	L = M (p = 0.109)
						F: 4.259	L = H (p = 1.000)
						p: 0.017**	M = H (p = 0.054)
						ŋ²: 0.086	

*p < 0.05; **p < 0.01; ***p < 0.001; L: Low; M: Mid; H: High; S1–S5: Secondary 1–Secondary 5.

remember them more easily. The use of visual support also made the learning process more engaging. One student wrote: "It is best to explain the words through pictures because it is boring to use chalk and talk only." Besides visual aids, students stated that vocabulary is best taught through practical application. They commented that teachers should provide examples that illustrate how the words are used in context and give students opportunities to practise using the words themselves. For example, some students wrote that teachers should create stories with newly learned words or encourage them to make new sentences with the words.

Students also recognised the importance of VLS. They claimed that guessing at the meaning of unknown words and note-taking are effective strategies. For some students, vocabulary instruction was considered most effective when teachers explained word meanings using L1 translation (e.g., "Using Chinese is the best way to help us understand the meaning") and plain language (e.g., "Teachers should explain it in simple words so that I can learn quickly"). Repetition in vocabulary instruction was also reported as a means to facilitate vocabulary acquisition (e.g., "Teachers should teach new words repeatedly to aid memory"). Nevertheless, some students maintained that teachers should incorporate various instructional practices and materials into their teaching, as exemplified by the comment that "There is no one best way to teach vocabulary."

6.2 Learner beliefs about vocabulary activities

Regarding classroom activities that promote vocabulary building (Table 4), students favoured activities that are engaging and motivating; more than 80 % favoured movies (item 11e, M = 3.54), songs (item 11g, M = 3.39), and games (item 11c, M = 3.22). About 60 % of the students favoured group discussions (item 11d, M = 2.78), reading different types of texts (item 11f, M = 2.75), and vocabulary sharing (item 11h, M = 2.72). However, most of the students did not favour dictation, with approximately 60 % of them disagreeing with item 11a (M = 2.24). Regarding learning vocabulary through drama, the results were mixed (item 11b, M = 2.64), with half of the students preferring it, while 42 % held the opposite view. As for how classroom activities should be incorporated into vocabulary teaching (see Table 5), more than threequarters of the students indicated that vocabulary activities should be conducted in small groups (item 15, M = 3.11) and that homework should always be assigned (item 16, M = 2.96). Two-thirds of the students appeared willing to have the same activities regularly (item 12, M = 2.83). However, beliefs about whether to conduct games (item 13) and to use only the activities provided in textbooks for vocabulary teaching (item 14) were mixed, as indicated by mean scores of 2.40 and 2.49, respectively.

Table 4: Students' beliefs about different types of vocabulary activities (Cronbach's Alpha: 0.760).

	Questions	Mean	SD	Strongly disagree (1)	Disagree (2)	Agree (3)	Strongly agree (4)	No idea
				n (%)	n (%)	n (%)	n (%)	n (%)
Q11	I would like my English teacher(s) to conduct the following vocabulary activities in class:							
11a	Dictation	2.24	0.92	129 (23.2)	194 (34.9)	166 (29.9)	46 (8.3)	21 (3.8)
11b	Drama	2.64	1.04	93 (16.7)	141 (25.4)	170 (30.6)	132 (23.7)	20 (3.6)
11c	Games (e.g., scrabble, spelling games, and crossword puzzles)	3.22	0.82	22 (4.0)	69 (12.4)	216 (38.8)	230 (41.4)	19 (3.4)
11d	Group discussion	2.78	0.92	52 (9.4)	143 (25.7)	211 (37.9)	129 (23.2)	21 (3.8)
11e	Movie appreciation	3.54	0.72	9 (1.6)	45 (8.1)	130 (23.4)	350 (62.9)	22 (4.0)
11f	Reading different types of texts (e.g., storybooks and newspaper articles)	2.75	0.88	48 (8.6)	149 (26.8)	230 (41.4)	111(20.0)	18 (3.2)
11g	Song appreciation	3.39	0.82	20 (3.6)	56 (10.1)	148 (26.6)	304 (54.7)	28 (5.0)
11h	Vocabulary sharing	2.72	0.95	67 (12.1)	135 (24.3)	208 (37.4)	119 (21.4)	27 (4.9)

A PCA was conducted to identify the underlying components of students' beliefs about vocabulary activities. Table 6 reveals four components explaining 59.71 % of the variance. Components 1 and 2 reflected students' receptivity to different types of vocabulary activities, while components 3 and 4 were related to beliefs about how teachers should incorporate those activities into lessons. Component 1, labelled "conventional activities," was loaded with five items, including reading (items 11f), vocabulary sharing (item 11h), group discussion (item 11d), drama (item 11b), and dictation (11a). Component 2, labelled "engaging activities," was loaded with three items, including movie appreciation (item 11e), song appreciation (11g), and games (11c). Component 3 had high loadings of three items reflecting indifference towards activities, including the belief that it is fine for teachers to use only activities from textbooks (item 14), not to conduct any games (item 13), and to repeat the same activities regularly (item 12). Component 4 contained two items that reflected a reliance on teachers, including the belief that teachers should always assign homework after vocabulary activities (item 16) and conduct vocabulary activities in small groups in class (item 15).

Two-way 3×5 ANOVAs were conducted to assess proficiency- and grade-level effects on student beliefs about vocabulary activities. Table 7 shows there were no

Table 5: Students' beliefs about the use of vocabulary activities (Cronbach's Alpha: 0.606).

	Questions	Mean	SD	Strongly disagree (1)	Disagree (2)	Agree (3)	Strongly agree (4)	No idea
				n (%)	n (%)	n (%)	n (%)	n (%)
Q12	It is fine for my English teacher(s) to conduct the same activities for vocabulary building in class regularly.	2.83	0.67	17 (3.1)	114 (20.5)	316 (56.8)	61 (11.0)	48 (8.6)
Q13	It is fine for my English teacher(s) not to conduct any games for vocabulary building in class.	2.40	0.81	74 (13.3)	183 (32.9)	219 (39.4)	29 (5.2)	51 (9.2)
Q14	It is fine for my English teacher(s) to use only vo- cabulary activities such as filling in the blanks and matching in textbooks to teach vocabulary.	2.49	0.80	62 (11.2)	177 (31.8)	236 (42.4)	39 (7.0)	42 (7.6)
Q15	My English teacher(s) should conduct vocabu- lary activities in small groups during English lessons.	3.11	0.61	10 (1.8)	42 (7.6)	343 (61.7)	116 (20.9)	45 (8.1)
Q16	My English teacher(s) should always assign homework to consolidate my vocabulary learning after conducting a vocabulary activity in class.	2.96	0.68	24 (4.3)	58 (10.4)	345 (62.1)	85 (15.3)	44 (7.9)

significant main effects of proficiency (F = 2.839, p = 0.060, partial $\eta^2 = 0.015$) or grade (F = 1.845, p = 0.120, partial $\eta^2 = 0.019$) on "conventional activities," and no significant interaction effect was found (F = 1.390, p = 0.199, partial $\eta^2 = 0.029$). In contrast, a significant effect of proficiency was found for "engaging activities" (F = 3.765, p = 0.024, partial $\eta^2 = 0.019$). Follow-up analyses revealed that low-proficiency students had a significantly stronger preference for engaging in activities than midproficiency students (p = 0.027), while the differences between other groups were not significant. No significant main effects of proficiency or grade, and no significant interaction effect were identified for both "indifference towards activities" and "reliance on teachers."

Table 6: Principal Component Analysis loadings of students' beliefs about vocabulary activities.

	Questions		Š	Components	
		Conventional Engaging activities	Engaging activities	Engaging Indifference activities towards activities	Reliance on teachers
2	I would like my English teacher(s) to conduct the following vocabulary activities in class:				
11f	Reading different types of texts (e.g., newspaper articles and storybooks)	0.735			
11 1	Vocabulary sharing	0.698			
11d	Group discussion	0.657			
11b	Drama	0.649			
11a	Dictation	0.548			
11e	Movie appreciation		0.797		
11g	Song appreciation		0.759		
110	Games (e.g., scrabble, spelling games, and crossword puzzles)		0.625		
Q14	It is fine for my English teacher(s) to use only vocabulary activities such as filling in the			0.825	
	blanks and matching in textbooks to teach vocabulary.				
013	It is fine for my English teacher(s) not to conduct any games for vocabulary building in class.			0.764	
Q1 2	It is fine for my English teacher(s) to conduct the same activities for vocabulary learning			0.725	
	building in class regularly.				
016	Q16 My English teacher(s) should always assign homework to consolidate my vocabulary				0.836
	learning after conducting a vocabulary activity in class.				
Q15	Q15 My English teacher(s) should conduct vocabulary activities in small groups during English				0.549
	lessons.				
	Eigenvalue	2.395	2.075	1.893	1.399
	Variance explained	18.42 %	15.96 %	14.57 %	10.76%
	Cronbach's Alpha for reliability	0.718	0.649	0.673	0.462

Notes: 1. The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.782, and Bartlett's test of sphericity showed a significant result (p < 0.001), indicating the factorability of the matrix. 2. In determining the number of components to be extracted, Kaiser's criterion of a minimum eigenvalue of 1.0 was used.

Table 7: Effects of proficiency and grade levels on students' beliefs about vocabulary activities.

Components	Pro	Proficiency levels		Grade levels	Pr	Proficiency X Grade levels	rels
	ANOVA	Post-hoc Bonferroni	ANOVA/ Kruskal- Wallis	Post-hoc Bonferroni/ Mann-Whitney U	ANOVA	Follow-up simple <i>Post-hoc</i> effects analysis Bonferro	<i>Post-hoc</i> Bonferroni
1 Conventional activities	F: 2.839	N/A	F: 1.845	N/A	F: 1.390	N/A	N/A
	p: 0.060		p: 0.120		p: 0.199		
	ŋ²: 0.015		ŋ²: 0.019		ŋ²: 0.029		
2 Engaging activities	F: 3.765	L > M(p = 0.027*)	H: 6.097	N/A			
	p: 0.024*	$L = H \ (p = 0.852)$	p: 0.192				
	ŋ²։ 0.019	M = H(p = 0.657)	ŋ²: 0.005				
3 Indifference towards activities	F: 0.034	N/A	F: 1.868	N/A	F: 1.101	N/A	N/A
	p: 0.967		p: 0.115		p: 0.362		
	η^2 : 0.000		ŋ²: 0.019		ຖ ² : 0.023		
4 Reliance on teachers	F: 0.837	N/A	H: 2.720	N/A			
	p: 0.434		p: 0.606				
	η^2 : 0.004		η^2 : 0.003				

*p < 0.05; L: Low; M: Mid; H: High.

Students were asked to explain their beliefs about various classroom activities designed to enhance vocabulary acquisition. Students who expressed a preference for games, movies, and songs explained that their choice was mainly due to the engaging and stimulating nature of these activities. Specifically, students perceived games, movies, and songs as interesting and enjoyable activities that could enhance their attention and focus, thus motivating them to engage in vocabulary learning (e.g., "Games can encourage me to learn vocabulary more"). Students also noted that these activities often created a relaxing classroom environment that was conducive to vocabulary learning (e.g., "I think such a relaxing environment is good for learning new vocabulary"). However, these activities were not always well-received. For example, one student considered games meaningless, stating, "Learning is more important than playing," Vocabulary learning through movies presented challenges, such as difficulties in understanding the dialogues (e.g., "I cannot understand what the characters say"), and the value of learning vocabulary through songs was questioned, with one student noting, "Lyrics nowadays usually don't contain many useful words." Regarding drama, some students found that it helped them engage in vocabulary learning, while others perceived it as boring and time-consuming for vocabulary development. Regarding dictation and vocabulary sharing, students who strongly preferred these activities indicated that these activities facilitate vocabulary retention (e.g., "They help us remember the words better") and growth (e.g., "Vocabulary sharing is easy to prepare. Both teachers and students can share their thoughts on different words, allowing everyone to learn from the sharing"). However, other students who did not prefer these activities often described them as boring, demotivating, and a waste of time. Specifically, dictation was perceived to facilitate only the retention of word form (e.g., "Dictation only focuses on the spelling of a word but not its meaning"), without facilitating acquisition (e.g., "After dictation, we don't actually learn the words"). Dictation also appeared to exert pressure as there was a desire not to fail such assessments. Group discussions were seen as potentially making lessons more interactive, although they were also considered less effective than other activities and prone to causing distractions. Contrary to the general impression that interesting activities are favoured in class, the qualitative responses surprisingly revealed a preference for omitting them based on the belief that they compromise the teaching of the main syllabus for examinations.

7 Discussion

In this section, we analyse the findings related to students' beliefs about vocabulary instruction and activities (RQ1) followed by an examination of grade-level and proficiency-based differences in these beliefs (RQ2), drawing implications for vocabulary teaching and learning.

7.1 Students' beliefs about vocabulary instruction: a call for promoting autonomous vocabulary learning and the development of VLS

Our findings suggest that students predominantly believe that vocabulary instruction should include VLS, and cover as many vocabulary items as possible. Consistent with prior research (Amiryousefi 2015b), the use of visual aids was supported, and the belief in the effectiveness of word repetition aligns with the findings of previous investigations (Nation 2022; Schmitt and Schmitt 2020). Extending beyond these established principles, our study categorised students' beliefs about vocabulary instruction into three components - "learner agency," "explicit vocabulary instruction" and "strategy use." Among these components, students who were more proficient in English showed a preference for strategy-focused instruction, which was less prevalent among students with mid and low proficiency. Students in S4 and S5 were more positive towards "explicit vocabulary instruction" than those in S1. This divergence underscores the nuanced role that proficiency and grade level play in students' beliefs, echoing previous research findings (e.g., Brown 2009; Wan et al. 2011). However, our findings also revealed that senior secondary students (S4 and S5) tend to rely more on their teachers to develop their vocabulary skills.

Our analyses also revealed a low endorsement of "learner agency," indicating a reluctance among students to engage in autonomous vocabulary learning. This may be attributed to the examination-oriented culture prevalent in Hong Kong's senior secondary curriculum, as discussed by Yung (2019), which prioritises teacher-led instruction. This cultural context may inadvertently discourage self-directed learning activities such as voluntary extensive reading, leading students to rely more on their teachers for vocabulary learning. Given the importance of VLS on vocabulary learning (e.g., Prichard and Atkins 2021; Schmitt and Schmitt 2020), teachers should integrate it into their teaching to promote incidental learning (e.g., guessing meanings from context) and consolidate word learning. Employing VLS can also raise learners' awareness of strategic learning, especially among lowproficiency learners who may not perceive its effectiveness.

7.2 Students' beliefs about vocabulary activities: the need for a balance between conventional and engaging activities

Students, particularly those with lower English proficiency, expressed a preference for engaging activities like games, movies, and songs. The finding contrasts with earlier research indicating a preference for teacher-led activities, like drilling exercises, over student-centred communicative activities (Hawkey 2006; Peacock 1998). This disparity may stem from contextual differences in the educational settings or cultural preferences that influence student engagement and motivation. For example, Hawkey's (2006) student participants came from a variety of schools, ranging from elementary to secondary levels in Italy, while Peacock (1998) focused on university students. Despite some resistance to conventional activities like dictation, students in our study still acknowledged their effectiveness for enhancing vocabulary retention and learning word forms (e.g., spelling). The complexity of student beliefs suggests a possible cognitive dissonance, where students recognise the benefits of less favoured activities yet prefer more engaging ones for vocabulary learning.

Although engaging activities can motivate students to learn new words, it is important not to overlook the effectiveness of conventional activities. As previous literature suggests, a variety of instructional techniques and resources is needed to promote vocabulary learning (e.g., Nation 2022). Thus, we propose a balanced approach, emphasising the importance of combining engaging and conventional activities to target different aspects of word knowledge effectively. For example, although games can be motivating, their educational value depends on their ability to target specific learning outcomes. This was evidenced by most of our participants who disliked engaging activities, preferring to focus on examination-related syllabus content, which highlights the need for purposeful implementation. Pedagogically, teachers should consider learner diversity by employing a wide range of vocabulary activities while making informed decisions to facilitate the learning of various aspects of word knowledge. Games can be used purposefully to create contexts where learners engage with words meaningfully, which enhances retention (Lee 2022). We would also emphasise the importance of having teachers demonstrate how different activities target various aspects of word knowledge, addressing the common learner practice of focusing predominantly on word form and meaning while neglecting other important aspects such as collocations and word associations (Chung and Fung 2023). It is these ancillary aspects of word knowledge that reinforce the value of diverse vocabulary teaching activities.

7.3 Consideration of grade- and proficiency-level differences to cater for learner diversity

Our study adds to the existing literature on learner beliefs (e.g., Brown 2009; Wan et al. 2011) by focusing on vocabulary teaching, revealing grade- and proficiency-level differences in students' beliefs about vocabulary instruction and activities. Our focused exploration provides new insights into the differentiated approaches

required for effective vocabulary teaching. Senior secondary students displayed a greater dependency on teacher-led instruction than their junior counterparts, suggesting a shift in learning strategies as students advance in their educational journey. This dependency may also reflect the increasing academic pressures that characterise senior secondary education in Hong Kong, emphasising the need for tailored instructional approaches that address these pressures while promoting effective vocabulary learning.

Teachers should consider these differences when planning curriculum and classroom activities, ensuring that they provide a rich mix of vocabulary learning opportunities that cater to the varying needs of students across different proficiency and grade levels. For example, incorporating multimedia resources like videos with captions has been found to enhance vocabulary acquisition, particularly for highproficiency learners (Chen et al. 2018). The spacing of vocabulary activities across different lessons can also be considered as studies indicate that low-proficiency learners benefit more from spaced learning opportunities spread over several weeks, instead of being concentrated in one single session (e.g., Lee et al. 2021). Regarding curriculum design, educators should prioritise the development of VLS and promote reading for pleasure to foster broad vocabulary development at the junior secondary level. At the senior secondary level, where the curriculum may not provide sufficient time for vocabulary learning, teachers can implement more teacher-centred activities targeting specific words essential for understanding content in other subjects (see Fung and Chung 2024).

8 Conclusions

Our study looks at teaching from the students' perspective, a viewpoint that is often overlooked. This focus provides a nuanced view of learner beliefs, demonstrating how these beliefs can vary according to English proficiency and grade level. Teachers need to be made aware of these learner perspectives to help them improve their teaching of vocabulary. Despite the insights gleaned from our study, some limitations should be considered. Although the study had a reasonably good sample size, all participants were recruited from a single secondary school in Hong Kong. Future research should use a more diverse sample to enhance the generalisability of the findings. Additionally, while the use of questionnaires to elicit students' beliefs captured both quantitative and qualitative data, the scope of qualitative insights was limited compared to what might have been achieved through more focused methods such as in-depth interviews. Future research should consider integrating more extensive qualitative approaches to uncover deeper insights into the factors influencing students' beliefs. Because our study focused solely on learners' beliefs about vocabulary teaching in the English language classroom, future studies should also examine teachers' perspectives and suggest ways to reconcile potential mismatches. Finally, as recent studies (e.g., Kalaja et al. 2017; Kang and Ahn 2019) have suggested, learner beliefs are not static and can evolve. Longitudinal studies should explore how such beliefs change and identify the factors that contribute to such changes.

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