MISMATCHES BETWEEN THE ENGLISH TRANSLATIONAL VERSION AND ITS SOURCE LANGUAGE TEXT IN THE VIETNAMESE BILINGUAL MATH TEXTBOOK SET "TOÁN 5"
NHỮNG ĐIỂM BẤT TƯƠNG ĐỒNG GIỮA BẢN DỊCH TIẾNG ANH VÀ BẢN GỐC TRONG BỘ SÁCH GIÁO KHOA TOÁN SONG NGỮ VIỆT-ANH "TOÁN 5"

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Abstract - The Vietnamese-English bilingual math textbook set "Toán 5" (VBMT5) includes the grade 5 Vietnamese bilingual math textbook first published in 2015 (G5VMT) and two workbooks published in 2016. This textbook set has been put into pilot use by Departments of Education in 40 provinces and cities in Vietnam in an attempt to give students more access to the fifth-grade math content via English based on their understanding of concepts in Vietnamese. In this article, we present our research on the Vietnamese bilingual math textbook set "Toán 5" (VBMT5) in order to find out mismatches (errors) occurring in the English translational version of the VBMT5. The study focuses on three types of mismatches, namely syntactic mismatches, lexical mismatches and textual mismatches. These findings can help to facilitate the usage of the grade 5 Vietnamese bilingual math textbook set and make a minor contribution to the improvement of the translation quality for the next editions.

Key words - bilingual textbook; grade 5 Math; syntactic mismatches; lexical mismatches; textual mismatches.

Tóm tắt - Bộ sách toán song ngữ Việt – Anh "Toán 5" gồm sách giáo khoa "Toán 5" xuất bản lần đầu tiên vào năm 2015 và hai cuốn sách bài tập xuất bản năm 2016. Bộ sách này đã được các Sở Giáo dục ở 40 tỉnh thành của Việt Nam đưa vào sử dụng thí điểm nhằm giúp học sinh tiếp cận nhiều hơn với các nội dung của toán lớp 5 bằng tiếng Anh trên cơ sở nắm bắt được khái niệm bằng tiếng Việt. Trong bài báo này, chúng tôi trình bày việc khảo sát bộ sách toán song ngữ Việt- Anh lớp 5 nhằm tìm ra những điểm bất tương đồng (lỗi sai) xảy ra trong bản dịch tiếng Anh của bộ sách. Bài báo tập trung vào ba loại bất tương đồng trên các bình diện cú pháp, từ vựng và văn bản. Những phát hiện này có thể hỗ trợ cho việc sử dụng bộ sách Toán song ngữ Việt – Anh lớp 5 cũng như góp phần cải thiện bản dịch để hướng đến chất lượng tốt hơn cho lần tái bản sau.

Từ khóa - sách song ngữ; Toán lớp 5; bất tương đồng về cú pháp; bất tương đồng về từ vựng; bất tương đồng về văn bản.

1. Introduction
1.1. Rationale

In the context of global integation, the ability to communicate in English has become a passport to get a better job not only in tourism and hospitality but also in many other fields. In order to help the Vietnamese youth achieve proficiency in English, it is really necessary to teach English in all aspects from the early ages at school. Therefore, integrating English into other subjects to create bilingual books is considered as a solution to attain the goal. Bilingual books that allow students both to learn subjects at school and learn English at the same time, so authors made strong efforts to translate contents of subjects in Vietnamese into English. However, during translation processes, mismatches occurring in the English translational version are inevitable. In the context of education in Viet Nam, compulsory schools to attend are primary schools and secondary schools including 12 grades. Among them, the fifth grade is the final grade of primary school, which is the bridge between the primary school and the secondary school. The grade five is regarded as a foundation of knowledge; therefore, all things taught in the fifth grade require special care, especially Maths because it is the most important subject and always appears in almost all curriculums as well as exam tests. Because of its importance, this study is aimed at finding out mismatches, then categorizing them into three types of mismatches and finally, figuring out the occurrence frequencies of mismatches in order to give an evaluation of the English translational version of the Vietnamese bilingual Math textbook set "Toán 5" (VBMT5) in quality.

1.2. Introduction of Vietnamese Bilingual Math Textbook Set "Toán 5"

The Vietnamese bilingual Math textbook set" Toán 5" (VBMT5) includes three books namely the grade 5 Vietnamese bilingual Math textbook published in 2015 (G5VMT) and two workbooks published in 2016: the grade 5 Vietnamese bilingual Maths workbook 1 (G5VMW1) and the grade 5 Vietnamese bilingual Maths workbook 2 (G5VMW2). The textbook presents theories and formulas of calculations as well as some exercises given for practice. Two workbooks consist of exercises and tasks with the same contents and level of difficulty as the exercises in the student's maths textbook. While the content of the Math textbook is divided into five chapters, the content of two workbooks is divided into 175 lessons.

2. Theoretical Background
2.1. Introduction to House's Theory of Translation Evaluation

House [1] presents a newly revised and presented a model for translation quality assessment which relies on detailed textual and culturally informed contextual analysis and comparison.

The book is a new treatment of translation quality assessment designed to update two previous versions of a model for translation quality assessment. In this book, the definition of "Assessment" is identical with that of "Evaluation", thus we can absolutely can base on House's theory to carry out the evaluation of the English translational version.

2.2. Definition of "Mismatches"

With regard to translation evaluation, House, concedes that a translation text (TT) is regarded as adequate if the requirement of dimensional and consequently functional match is fulfilled. Ultimately, "*any mismatch along the dimensions is an error*" [1, p. 33]. She considers these types of errors as covertly erroneous errors which result from a mismatch of one situational dimension with a similar one in the translation text (TT).

In other words, mismatches are defined as cases that fail to preserve the grammatical structures of source texts, may cause ambiguity in translation texts as well as omit or select words, phrases and sentences, which are not similar to ones in ST.

Based on the results of House's implementation of her evaluation model, we come to an identification of mismatches in terms of three types - syntactic, lexical and textual ones as follows:

2.2.1. Syntactic mismatches (SMs)

Syntactic mismatches are identified as follows:

- Absence of parentheses and any kind of spoken language signals.

- Absence of elliptical clauses, contractions, imperative or interrogative sentences - change in the position of subordinate clauses.

- Presence of pronouns, modal verbs, dummy subjects.

- Change in types of sentences such as active, passive, imperative, interrogative.

2.2.2. Lexical mismatches (LMs)

Lexical mismatches are identified as follows:

- Presence of words and phrases marked as well as phrases which precisely define the information given, or explicitly state conceivable alternatives

- Absence of adverbials, interjections and other subjectivity markers, foregrounded words and expressions, and of any kind of figurative language.

- Use of precise technical terminology

2.2.3. Textual mismatches (TMs)

Textual mismatches are identified as follows:

- Lack of repetitions resulting in a lack of redundancy.

- Repetition of lexical items.

- Frequent use of passivization and anaphoric referencing by means of pro-forms for noun phrases, adverbials, predicates, clauses, or sentences.

- Deliberate overall organization of the text.

- Organization of thematic movement in sequences of theme–rheme structures.

- Given–new ordering.

3. Methodology

The aim of the study is to compare the English translational version with the Vietnamese source text to find out mismatches and then analyze mismatches to categorize them into three types namely syntactic mismatches, lexical mismatches and textual mismatches. In order to achieve this aim, this study has been carried out through descriptive and comparative methods, using qualitative research design to find out mismatches and classify them into three types as well as evaluate the quality of the English translational version. Besides, we use the quantitative research design to point out the occurrence frequency of mismatches.

In order to build up the data of the study, two criteria for selecting samples were established:

1- Samples must be collected from the part of exercises of VBMT5, which consists of three books: a textbook (2015) and two workbooks (2016) published by Vietnam Education Publishing House.

2- Samples must be mismatches based on the criteria for identifying mismatches.

4. Findings and Discussion

4.1. Syntactic Mismatches

Syntactic mismatches are cases which fail to keep grammatical and sentence structures. They may cause ambiguity for readers and reduce their effects on readers.

Based on our analysis of 1146 exercises in three books, we have found out 227 mismatches in terms of syntax, which are categorized into 6 mismatch groups.

Group 1. The translation texts (TTs) fail to preserve the subordinate clauses of purpose, of condition, of time before the main clause. In some cases, TT changes main clauses into the subordinate clauses. Here are examples:

(1a) **ST:** *Khi thời gian gấp lên bao nhiêu lần thì quảng đường đi được cũng gấp lên bấy nhiêu lần.*

[2, p19]

(1b) **TT**: *The multiples that travelling time increases by are equal to those which the distance increased by.*

[2, p19]

Instead of the subordinate clause as in ST "*Khi thời gian gấp lên bao nhiêu lần*" (1a), TT uses the relative clause "*which the distance increased by.*"(1b).

Group 2. The active sentences in the source texts (ST) are transferred into passive sentences in the translation texts (TT) and vice versa. Here are examples:

(2a) **ST**: *Hỏi <u>anh Ba</u> làm được bao nhiêu phần trăm số sản phẩm của tổ?* [2, p79]

(2b) **TT**: *What is the <u>percentage of the products</u> made by Ba out of all products?* [2, p79]

TT uses the passive sentence with the subject "*the percentage of the products*" (2b) while ST uses the active sentence with the subject "*anh Ba"* (2a). This has changed the focus of emphasis in sentences.

Group 3. The translation texts change the interrogative sentences with questions words into imperative sentences and vice versa. Here are examples:

(3a) **ST**: *Tính diện tích phần đất làm nhà.* [2, p77]

(3b) **TT**: *What is the area of the house?* [2, p77]

The TT changes the imperative sentence into the

interrogative sentence with the use of the question word "what" (3b). The sentence in the ST (3a) expresses the meaning of command more than that in the TT (3b).

Group 4. The translation texts add subjects to the sentences that lack subjects in the source texts:

(4a) **ST**: *Có thể viết hỗn số thành một phân số có:*

[2, p13]

(4b) **TT**: *We can write a mixed number as a fraction with:* [2, p13]

The ST does not use the subject in the sentence (4a), but the TT adds the subject "we" (4b) to refer to both writers and readers.

Group 5. The translation texts use different sentence structures from the source texts in translation. Specifically, the translation texts generally use the dummy subjects " it" or "there".

For example:

(5a) ST: *Mua 4m vải phải trả 60 000 đồng.*   [2, p62]

(5b) TT: *It costs 60 000 VND to buy 4m of cloth.*

[2, p62]

The TT uses the dummy subject *"It"* (5b) while the ST does not use subject (5a).

Group 6. The translation texts change the number of clauses in a sentence. In other words, instead of translating the same clauses as in the source texts, the translation texts transfer them into more or fewer clauses:

(6a) **ST**: *Hỏi với vận tốc đó báo gấm chạy trong $\frac{1}{25}$ giờ được bao nhiêu ki-lô-mét?*   [2, p146]

(6b) **TT**: *If it runs for $\frac{1}{25}$ hour at the same speed, how many kilometers can it cover?*   [2, p156]

Instead of translating into one clause as in ST (6a), translators transfer one clause into two clauses (6b).

After examining the three books in the Vietnamese bilingual Math textbook set, we found out the frequency of syntactic mismatches in the Vietnamese bilingual Math textbook set "Toán 5", which can be presented as follows:

Table 1. Frequency of syntactic mismatches in the Vietnamese Bilingual Math Textbook Set "Toán 5"

Syntactic mismatches	Occurrence
Group 1	42
Group 2	49
Group 3	34
Group 4	14
Group 5	79
Group 6	9
Total	227

Table 1 shows that the number of syntactic mismatches occurring in the group 5 is the highest with 79 mismatches. In most cases, the translation texts (TTs) use different sentence structures from the source texts (STs) in translation. On the contrary, the group with the fewest

mismatches is group 6 with 9 mismatches, which implies a change in the number of clauses in TTs.

4.2. Lexical Mismatches

Lexical mismatches are cases which fail to ensure clear and detailed meaning in STs. Through analyzing the exercises in VBMT5, we found out 337 lexical mismatches, which are categorized into 7 mismatch groups.

Group 1. Removing the words, the phrases, or the clause in the sentences. Here are examples:

(7a) **ST**: *Đo chiều cao một cái cây được 4m75 cm. Như vậy, chiều cao của cây đó là:*   [2, p15]

(7b) **TT**: *The height of a tree is measured as 4m75 cm, or:*
[2, p15]

The phrase "*Như vậy, chiều cao của cây đó là:*" (7b) is removed (7b). Instead of that, the TT only uses the word "or".

Group 2. The stylistic device mentioned in TTs is specifically metonymy. TTs use things to refer to people. Here are examples:

(8a) **ST**: *Một người đi xe đạp từ B đến với vận tốc 12 km/giờ, cùng lúc đó một người đi xe máy từ A cách B là 48 km với vận tốc 36 km/giờ và đuổi theo xe đạp.*

[2, p145]

(8b) **TT**: *A bicycle travels, from B to C at a speed of 12 km/h. At the same time, a motorbike travels the distance AB of 48km at a speed of 36 km/h to catch up with the bicycle.*
[2, p145]

The TT uses metonymy in the sentence. Instead of translating *"một người đi xe đạp"* (8a) directly, TT uses the thing " *a bicycle"* (8b) to replace the person using that thing.

Group 3. The TTs make use of the modal verb "*can*" in translation:

(9a) **ST**: *Các phân số thập phân$\frac{5}{10}$; $\frac{7}{100}$,$\frac{9}{1000}$ được viết thành 0,5; 0,07; 0,009.*   [2, p. 34]

(9b) **TT**: *Decimal fractions$\frac{5}{10}$; $\frac{7}{100}$,$\frac{9}{1000}$ can be written as 0.5; 0.07; 0.009.*   [2, p. 34]

Group 4. The TT does not preserve the repetition of words in a sentence. Here are examples:

(10a) **ST**: *Một lớp học có 28 học sinh, trong đó số em nam bằng $\frac{2}{5}$ số em nữ. Hỏi lớp học đó có bao nhiêu em nữ, bao nhiêu em nam?*   [2, p. 22]

(10b) **TT**: *There are 28 students in a class; the number of boys is $\frac{2}{5}$ the number of girls. How many boys, girls are there in the class?*   [2, p. 22]

In ST (10a), "*bao nhiêu*" is written twice while in the English translation, whereas the equivalent "*how many*" (10b) is written only once.

Group 5. The TT adds or omits the demonstrative adjectives. Here are examples:

(11a) **ST**: *Viết các số đo độ dài (theo mẫu):*   [2, p17]

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(11b) **TT**: *Write these lengths (follow the example):*

[2, p17]

In above example, TT adds the determiner "these" to the sentence (11b).

The frequency of lexical mismatches in the books of the Vietnamese bilingual Math textbook set "Toán 5" can be shown as follows:

Table 2. Frequency of lexical mismatches in three books of Vietnamese Bilingual Math Textbook Set "Toán 5"

Lexical mismatches	Occurrence
Group 1	42
Group 2	2
Group 3	25
Group 4	8
Group 5	14
Total	91

According to Table 2, Group 1, which consists of sentences in TTs resulting from removing words, phrases or clauses in the sentences, account for the highest occurrence of 42 mismatches. On the other hand, Group 2, which presents the usage of metonymy in the sentences in TTs makes up the fewest occurrence - only 2 mismatches.

4.3. Textual Mismatches

Textual mismatches are cases which fail to preserve parts of speech and the forms of words, phrases, clauses and even sentences. There are 90 textual mismatches classified into 4 groups.

Group 1. The TT fails to keep the numbers in words as in the ST. Here are examples:

(12a) **ST**: *Một cửa hàng trong ba ngày bán được 1 tấn đường.* [2, p.25]

(12b) **TT**: *A store sold 1 ton of sugar in 3 days.*

[2, p.25]

The TT replaces the word "*ba*" (12a) with the number "*3*" (12b), which affects the focus of emphasis in the sentence.

Group 2. The TT transfers parts of speech in sentences. Specifically, a noun is transferred into a verb or a noun is transferred into an adjective.

For example:

(13a) **ST**: *Tìm số dư của phép chia 218:3,7 nếu chỉ lấy đến hai chữ số ở phần thập phân của thương.* [2, p72]

(13b) **TT**: *Find the remainder when dividing 218 by 3.7, if we stop dividing at the second decimal place of the quotient.* [2, p72]

The TT changes the nominalization "phép chia" in the ST (13a) to the verb-form "dividing" in (13b).

Group 3. TT replaces nouns with pronouns.

For example:

(14a) **ST**: *Hỏi ô tô đó chở bao nhiêu tấn gạo?*

[2, p57]

(14b) **TT**: *How many tons of rice is it carrying?*

[2, p57]

The TT uses the pronoun "it" (14b) to replace the noun "*ô tô*" (14a). In fact, using the noun makes the sentence in the STs clearer.

Group 4. The TT adds brackets providing extra information which is considered as main information in the ST. Here are examples:

(15a) **ST**: *Nếu nhân cả tử số và mẫu số của một phân số với cùng một số tự nhiên khác 0 thì được một phân số bằng phân số đã cho.* [2, p5]

(15b) **TT**: *Multiplying both the numerator and denominator of a fraction by a natura nymber (other than 0), we have a new fraction that is equivalent to the given fraction.* [2, p5]

In the ST (15a), there is no bracket for the phrase "*khác 0*" but in the TT (15b), a bracket is used. "*(other than 0)*".

The frequency of textual mismatches in the three books of the Vietnamese bilingual Math textbook set "Toán 5" can be shown as follows:

Table 3. Frequency of textual mismatches in the Vietnamese Bilingual Math Textbook Set "Toán 5"

Textual mismatches	Occurrence
Group 1	5
Group 2	3
Group 3	37
Group 4	57
Total	102

Unlike syntactic and lexical mismatches, there are the fewest textual mismatches occurring in the Vietnamese bilingual Math textbook set "Toán 5. Among the four groups, Group 4 has the most mismatches with 57 sentences containing additional brackets or changing the forms of words. The group with the fewest mismatches is Group 2 with 3 mismatches resulting from replacement of nouns with pronouns or replacement of possessive nouns with possessive adjectives.

To sum up, based on the results of the analysis, it is realized that the syntactic mismatches are categorized into 6 groups, the lexical mismatches into 5 groups and the textual mismatches into 4 groups. Of the three types of mismatches, syntactic mismatches account for the highest number with 227 cases; the fewest mismatches belong to the lexical type with 91 cases; the textual type is demonstrated in 102 cases.

4.4. Frequency of Mismatches Occurring in the Vietnamese Bilingual Math Textbook Set "Toán 5"

After analyzing mismatches occurring in the English translational version of the Vietnamese bilingual Math textbook set "Toán 5" (VBMT5), we discovered mismatches in 1146 exercises in VBMT5, which occurred including 591 exercises in the textbook, 324 exercises in the workbook 1, and 231 exercises in the workbook 2. The quantity of mismatches occurring in the three books of VBMT5 is presented in the following table:

Table 4. *Frequency of Mismatches in Vietnamese Bilingual Math Textbook Set "Toán 5"*

Book	SMs	LMs	TMs	Total
Textbook	103	33	26	162
Workbook 1	54	22	30	106
Workbook 2	70	36	46	152
Textbook set	227	91	102	420

It can be seen that in the textbook, there are 162 mismatches occurring in 591 exercises. The workbook 1 and the workbook 2 have fewer mismatches than the textbook. The workbook 1 has 106 mismatches occurring in 324 exercises and the workbook 2 has 152 mismatches occurring in 231 exercises.

In terms of mismatches, there are 420 mismatches occurring in 1146 exercises of the Vietnamese Bilingual Math Textbook Set "Toán 5" in three aspects, namely, *syntactic, lexical, and textual ones* based on the theory of House (2015). The syntactic aspect has the highest mismatches with 227 cases; them come the textual mismatches with 102 cases and the lexical mismatches with 91 cases.

5. Conclusion

The study focuses on identifying types of mismatches occurring in the Vietnamese Bilingual Math Textbook Set "Toán 5". From the analysis of the collected data, we can come to the following conclusions:

There are three types of mismatches occurring in the whole textbook set, namely syntactic, lexical and textual mismatches.

In terms of syntactic mismatches, there are six groups: Failure to preserve the subordinate clauses; Transformation between active sentences and passive sentences; Change in the interrogative sentences and imperative sentences; Addition of the subject in sentences; Change in sentence structures; and Change in the number of clauses. The syntactic mismatches occupy the most quantity.

With the regard to lexical mismatches, there are five groups: Replacement or Omission of Words or Phrases; Usage of stylistic devices; Addition of the modal verbs; Failure to repeat the question words; and Addition of the demonstrative adjectives. The lexical mismatches have the fewest quantity.

In respect of textual mismatches, there are four groups: Failure to keep the forms of words denoting numbers; Change in using parts of speech; Replacement of nouns with pronouns; and Addition of the brackets.

It is hoped that the study may make a minor contribution to helping teachers realize mismatches occurring in the textbook set so that they can make a clear explanation of exercises for pupils as well as find some suitable solutions to help pupils avoid ambiguity. At the same time, the study may provide translators with some useful clues for translation in order that they can create a better English translational version. Moreover, the study can be a useful reference for publishers to re-publish the Vietnamese bilingual Math textbook Set "Toán 5" with better quality.

REFERENCES AND DATA SOURCES

[1] House J. (2015). *Translation Quality Assessment: Past and Present.* New York: Routledge.

[2] Đỗ Đăng Hoan, Trần Nguyễn Thùy Trang và Nguyễn Thu Trà (2015). *Toán 5 Song Ngữ Việt- Anh*. Nhà xuất bản Giáo dục Việt Nam.

[3] Đỗ Đăng Hoan, Trần Nguyễn Thùy Trang và Nguyễn Thu Trà (2015). *Vở Bài Tập Toán 5 Song Ngữ Việt – Anh tập 1*. Nhà xuất bản Giáo dục Việt Nam.

[4] Đỗ Đăng Hoan, Trần Nguyễn Thùy Trang và Nguyễn Thu Trà (2015). *Vở Bài Tập Toán 5 Song Ngữ Việt – Anh tập 2*. Nhà xuất bản Giáo dục Việt Nam.