



Translanguaging In Medical Education: A Case Of Undergraduate Students In Health Sciences Faculty At A South African University Of Technology

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Abstract

There is a significant amount of research available on translanguaging pedagogy, which highlights the substantial efforts of tertiary-level researchers in South Africa towards this approach. This study explored the perceptions and experiences of undergraduate medical students towards translanguaging in medical education in a South African University of Technology (UoT) located in a township. Translanguaging is a language practice that involves using multiple languages to communicate effectively, which has been shown to have positive outcomes in language learning and teaching, including the medical field. However, there is limited research on the use of translanguaging in medical education among undergraduate students especially those that come from disadvantaged backgrounds and schools. The study used a qualitative research design, employing semi-structured interviews with undergraduate health science students from different year levels. The data collected was analyzed using thematic analysis. The findings of this study showed that a sizable portion of participants expressed support for the instructor using both English and their first language during lessons. Participants believe that switching between languages can improve comprehension, especially when complex concepts are conveyed in their home language. Translanguaging encourages a more inclusive and relaxed learning environment where students may freely express themselves and take part in fruitful peer interactions. Therefore, translanguaging in medical education should be considered by facilitators for effective communication and patient-centered care as well as the promotion of students' bilingualism and biliteracy to maximize their learning.

Keywords: Translanguaging Pedagogy, Multilingualism, Higher Education, Medical Education

1. Introduction

The ability to traverse between languages by modifying communication abilities have been studied in recent years as a response to the multilingual environments of today's educational institutions [25]. Correspondingly, translanguaging in medical education has also gained popularity to overcome language barriers and boost learning and communication while also enhancing patient outcomes. The discussion seeks to clarify the potential advantages, difficulties, and restrictions connected with this approach. Given the changing language features of patient populations that are culturally and linguistically varied, it is critical that we adapt and improve the methods utilized to teach relevant communication skills to medical students [1]. Additionally, in the context of teaching and learning, the study investigates students' attitudes, experiences, and opinions on translanguaging. In line with that, this research adds to the continuing discussions about the implementation of contextually appropriate institutional language policies, especially within the previously marginalized institutions. By teaching through a second language to medical students who might gain from knowing patient-centered communication strategies, such as those supported by translanguaging, such policies will promote attempts to improve medical language concordance.

2. Benefits of Translanguaging in Medical Education

The growing demand for bilingual healthcare professionals also underscores the need for the integration of translanguaging training within medical education programs, as emphasized by Ortega and Prada (2020) [1]. A study looking into translanguaging to enhance reading comprehension among first-year medical students reported that translanguaging is an effective strategy that enhances reading comprehension [2]. Furthermore, other scholars in the Luxembourg and Netherlands assert that translanguaging is a beneficial pedagogical strategy to acknowledge migrant languages [3]. The concept of translanguaging is currently applied in practice, for instance, the professor of a language and communication policies course at the University of Algarve in Portugal let students use their various linguistic repertoires during the lessons to achieve a collective comprehension of the content, which in most cases was in English [4]. Translanguaging can be a useful pedagogy even in the higher education [5]. A study conducted training medical students established that English proficiency often serves as a gatekeeper for aspiring medical students in Puerto Rico [6]. Moreover, multilingual adolescents in naturalistic settings use their multilingualism to cognitively engage with content-based tasks and produce high-order speech acts embedded in complex talk [7].

Drawing upon sociolinguistic theories, translanguaging possesses multiple language resources, and utilizing them can enrich learning and communication in medical education. Therefore, teaching communication skills to medical students should evolve and engage with the fluid linguistic attributes of culturally and linguistically diverse patient populations [1]. Translanguaging aligns with the theory of bilingualism, which suggests cognitive advantages for individuals proficient in multiple languages [8]. This perspective posits that translanguaging can enhance critical thinking skills and executive functions among healthcare professionals, contributing to improved decision-making abilities. Translanguaging promotes patient-centered care by enabling healthcare providers to communicate in the language preferred by patients [9]. Aligned with constructivist educational theory, this approach recognizes the significance of individualized and contextualized learning experiences to cater to the diverse needs of learners, fostering better health care worker-patient relationships. Communication is a fundamental medical skill, therefore translanguaging in education is also important as a form of communication [10].

3. Some factors contributing towards enhancement of translanguaging

Translanguaging is a complex issue, highly dependent on the specific context in which it is applied. Several factors contribute to the promotion of translanguaging within different contexts: *Teacher Attitudes and Implementation Challenges*: Teacher attitudes play a significant role in integrating new pedagogical approaches like translanguaging, but a positive attitude does not always guarantee learner-centered teaching methods [6]. *Standardization and Accuracy Concerns*: Medical education emphasizes precise communication. Some argue that translanguaging can introduce discrepancies and inaccuracies, emphasizing the importance of maintaining clear language distinctions for accuracy and to prevent misunderstandings [11]. *Language Proficiency Disparities*: Translanguaging assumes a certain level of language proficiency among both students and instructors. Differences in actual language proficiency can lead to unequal learning opportunities, highlighting the need for proper support to ensure all students can actively participate and understand the material [12]. *Literacy Challenges in South African Higher Education*: African language speakers, who are second language English speakers, often face literacy issues that hinder their progress in South African higher education. Translanguaging has been recommended as a strategy to address language inequality and develop literacy in both African languages and English [13]. South Africa has been making efforts to incorporate translanguaging in education to support learners who speak various African languages as their home languages, aiming to create a more inclusive and equitable learning

environment. Lastly, *Limitations in Resources and Training*, which is concerned with the necessity and the number of resources needed to implement translanguaging in medical education [1]. It may take substantial resources to create curricular materials that are appropriate, have qualified multilingual instructors available, and create conditions that are encouraging. Concerns concerning the viability and sustainability of translanguaging programmes are raised by those who contend that scarce resources might be better used to meet other urgent educational needs.

Table 1: Some of the countries that are embracing translanguaging

The list of nations that employ translanguaging is presented in Table 1 below. It is significant to highlight that the adoption and degree of translanguaging practices may range among regions, educational systems, and degrees of education within each nation.

Country	Rationale	Ref
Puerto Rico	Translanguaging has been studied and implemented in medical education to address language ability and serve as a gatekeeper for aspiring medical students.	[1]
Kenya	Kenya has embraced translanguaging to bridge language gaps in education, particularly in early childhood and primary education.	[14]
Tanzania	Tanzania has recognized the importance of translanguaging to support learners in multilingual settings, allowing for the use of various languages for instruction and communication.	[15]
China	Translanguaging has been studied and implemented in medical education to address language ability and serve as a gatekeeper for aspiring medical students.	[16]
Portugal	Translanguaging is applied in practice in universities, such as the University of Algarve, where students are encouraged to use their various linguistic repertoires to achieve collective comprehension of content.	[4]
Zimbabwe	Translanguaging is being explored as an approach to enhance literacy development and improve educational outcomes among students who speak different indigenous languages.	[17]
Netherlands	Translanguaging is acknowledged as a valuable approach to engage students' multilingualism and enhance learning outcome	[3,7].
Uganda	Uganda has recognized the value of translanguaging in education and is exploring its implementation to address language barriers and promote effective communication in the classroom.	[18]
Luxembourg	Translanguaging is recognized and promoted as a pedagogical strategy to acknowledge and support the linguistic diversity of students.	[3,7]

South Africa	Translanguaging is increasingly being used in South African universities to address language barriers and promote multilingualism in education.	[19]
Nepal	Nepal has embraced translanguaging in education to bridge language barriers and promote inclusive learning environments. The approach allows for the use of different languages to enhance understanding and engagement among learners.	[20]
India	In India, translanguaging is being explored and implemented in various regions to support students who speak different regional languages as their home languages. The approach recognizes the importance of using multiple languages for instruction and communication.	[21]

The critical review of translanguaging in medical education has presented arguments both for and against its implementation. Proponents emphasize the recognition of linguistic diversity, potential cognitive benefits, and the promotion of patient-centered care. However, opponents highlight concerns related to standardization and accuracy, language ability disparities, and the allocation of limited resources. To inform best practices, ongoing research and evaluation are necessary to understand the effectiveness, appropriateness, and potential limitations of translanguaging in specific health science or medical education contexts. By considering linguistic theories and educational theories, educators and policymakers can make informed decisions of the integration of translanguaging in medical education to bridge language barriers and improve healthcare outcomes.

4. The Importance of Collecting Students' Perspectives on Translanguaging in Education

Collecting students' perspectives on translanguaging is of utmost importance in the field of education. It adopts a student-centered approach, acknowledging the pivotal role of learners in the language learning process [22]. By soliciting their views, educators gain valuable insights into students' experiences, needs, and preferences concerning language usage within the classroom setting. The significance of this approach lies in its ability to inform instructional practices. Understanding how students naturally employ their languages to support their learning enables educators to design effective teaching strategies. By capitalizing on students' linguistic resources and promoting meaningful engagement, educators can create an optimal learning environment that caters to individual needs and fosters academic growth [23]. Moreover, incorporating students' perspectives on translanguaging contributes to promoting inclusivity and celebrating diversity [13]. Recognizing the linguistic diversity within classrooms and valuing students' indigenous languages facilitates a

sense of belonging and validates their cultural identities. This inclusive approach cultivates a positive classroom climate conducive to effective learning. Furthermore, involving students in shaping their language learning experiences enhances their motivation and active involvement [23]. By allowing students to utilize their entire linguistic repertoire, including their mother tongues, educators can tap into students' intrinsic motivation and bolster their engagement in the learning process. The insights gathered from students' views on translanguaging serve as a guide for educators to tailor their teaching methods, accordingly, fostering a conducive and participatory learning environment [23]. Lastly, gathering students' perspectives on translanguaging provides invaluable feedback for educators and promotes their professional development. By reflecting on students' perceptions and experiences with multiple languages, teachers can refine their instructional approaches, adapt their methods to better meet students' needs, and deepen their understanding of translanguaging in the classroom. In sum, the act of collecting students' views on translanguaging is an essential component of education. It enables the creation of inclusive, student-centered learning environments, informs instructional practices, promotes diversity, enhances motivation, and supports the ongoing professional development of educators. There is a growing body of research on the application of translanguaging in various educational contexts, however, the literature on the field of Medical Laboratory Science is limited, particularly in the South African context. It is therefore on that impetus that the current study was conducted.

5. Methodology

This study used a qualitative research design which focuses on a variety of methodologies and takes an interpretive, naturalistic approach to its subject. This implies that qualitative researchers investigate phenomena in their natural environments while attempting to explain phenomena in terms of the meanings that individuals assign to them. A variety of empirical materials, including case studies, individual experiences, introspective, life stories, interviews, observational, historical, interactive, and visual texts, which describe common and troubling events and meanings in people's lives are studied in qualitative research [26]. For this study, semi-structured interviews were held with 11 respondents out of 26 undergraduate medical science third year students. The semi-structured interview is an exploratory interview that is most frequently used to collect data for qualitative research or for medical purposes. The semi-structured interview allows for discovery with flexibility to pursue thematic trajectories as the conversation evolves, even though it often follows a guide or protocol that is developed before the interview and is centered on a core topic to provide a basic structure [27]. These participants were recruited using simple random sampling where every case of the population has an equal probability of inclusion in sample [28]. The questions

focused on (1) participant's biographical background, (2) their attitudes towards English as a medium of instruction, (3) their attitude towards translanguaging, and their (4) translanguaging practices. At the beginning of the interviews, participants were informed that they could flexibly use languages other than English during the interviews. Driven by the collected transcribed data, a set of themes was constructed, and they are Language Proficiency and Testing, Understanding and Clarity in Exams, Equality and Fairness in Communication, Balancing Indigenous Language and Learning Language, Overcoming Language Barriers, Confidence and Effective Peer Communication and Learning Environment and Engagement. The themes were reviewed and refined based on the research questions and responses ascertained from the respondents. This step aimed to ensure that the analysis identified participants' perceptions and experiences towards translanguaging in medical education. Primarily, the study focused on the qualitative research design as previously mentioned. However, through data interpretation, the study computed into percentages for interpretation of the answers from the respondents to quantitatively interpret retrieved data. Thus, the qualitative research design was the primary one whereas the quantitative one supplemented it as per the assertions made earlier.

6. Data Analysis

The responses were analyzed using tabulated percentage formats, narratively and thematically where necessary.

6.1 Biographical details of the participants

Eleven out of a population of 26, (42% response rate), The distribution of high school types shows that 45% are rural, 18% are township, and 36% are urban, while the first or home language breakdown reveals that 9.09% speak Sotho, and 90.99% speak IsiZulu.

ITEM 1: Do you think that the more students use English in the classroom contributes towards more progress in grasping the language?

81.82% of the participants' responses showed that they do not believe increased English usage in the classroom leads to better language grasping, while only 18.18% think it does. Reasons provided were as follows: *"In a field of work there might be white people and they know that English is the communication language."* *"Because if you regularly use a language of which is English in this case you become more fluent in it."* *"The more you talk English the more fluent you become."* *"The more you use it the more you grasp it."* *"A lot of students did not attend multi racial schools before university so they have a grasp of English is lacking. I believe if English is medium in the lecture room those students will not only learn the language but understand it more*

clearly.” *“English is already the medium of communication. It needs no further grasping.”* *“Good results require practice and consistency.”* *“It’s easy to study using home language to remember or for someone to explain something you didn’t understand in class.”* *“It enables one to be in a position whereby they are able to be competitive in a world class level.”* *“This will help with English speaking skills.”* *“I’ve attended in rural areas where we were taught everything in Zulu and we didn’t use English to communicate in class ,the only time I started learning and communicating in English was when I did my 1st year in varsity and I struggled a lot but as years went by I got used to it and my English improved, it have improved even more now that I’m exposed to a place where it’s not optional to use English but compulsory at work, so it does make a difference if you use it more often.”*

From the responses, it can be deduced that; regular use of English in the classroom increases fluency and understanding. Lack of exposure to English in multi-racial schools can result in weaker language grasp. English is already the primary medium of communication; additional grasping may not be necessary. For effective language learning outcomes, consistent practice is essential. To understand the material better, some students prefer to learn in their indigenous tongue. Being able to communicate in English gives you an advantage in the global employment market. From personal experience, exposure increases English proficiency. For language development, using English as a medium of instruction is advantageous. English language learning needs to be promoted and developed both within and outside of the classroom using the right strategies. These methods aid students in developing their English-language skills and their ability to communicate in the target language [29].

ITEM 2: When do you think is the perfect time for English to be used during teaching and learning? The data shows that most participants (63.64%) consider the perfect time for English usage to be during lecturer explanations. Additionally, a smaller proportion (36.36%) prefers using English during presentations. None of the respondents mentioned using English when writing assignments or during student-to-student interactions as the ideal time. The reasons provided by students were categorized thematically. **Language Proficiency and Testing:** *“To test your English.”* *“So that students will get information in the language they’ll be tested or examined in.”* **Understanding and Clarity in Exams:** *“I believe if a lecturer explains something in the same language as the tests or exams, it will be easier for students to understand exam questions and not be conflicted during the exam period when a question that should have been explained in English is asked.”* **Equality and Fairness in Communication:** *“Since English is already the medium of communication, it is best that the lecturer addresses students in a language that they all understand to promote*

equality and fairness in the lecture room.” **Balancing Native Language and Learning Language:** *“Sometimes you need your own language and interaction between your language and the primary learning language to better understand a concept and grasp it.”* **Overcoming Language Barriers:** *“To avoid language barriers for some people.”* **Confidence and Effective Peer Communication:** *“When talking to your peer, that’s when you are most confident.”* **Learning Environment and Engagement:** *“That’s where learning happens.”* *“This will create a foundation for students to get used to presenting in English for future uses.”* The themes suggest that participants perceive English as an important language for effective communication, learning, and assessing, with considerations for clarity, fairness, and inclusivity in the learning environment [30].

ITEM 3: Do you think that students should be allowed to use their first language during teaching and learning. A total of 81.82% of participants support the notion of allowing students to use their first language during teaching and learning, while 18.18% are against the idea. The responses to whether students should be allowed to use their first language during teaching and learning presents diverse perspectives. Some participants argue in favor of allowing the first language usage, stating that it enables better explanation of concepts, makes students feel more comfortable, and facilitates their full expression. They believe that some students may struggle to translate their thoughts accurately into English, making the first language valuable for effective communication. The use of learners' home language in the classroom promotes a smooth transition between home and school. It means learners get more involved in the learning process and speeds up the development of basic literacy skills [31]. On the other hand, some respondents oppose the idea, emphasizing the need for a common language to ensure understanding for all students and promote an inclusive learning environment. They point out that not everyone may comprehend every language used, and using a universally understood language, like English, aligns with a world-class educational approach. The varying opinions shed light on the complexities of language in educational settings, highlighting the importance of balancing linguistic diversity with effective communication and comprehension.

ITEM 4: What is your view of the instructor/lecturer switching from one language to the other during a lesson? The participants' views on the instructor/lecturer switching from one language to another during a lesson were varied. Some expressed support, *“I don’t have any problem unless they use a language, I’m familiar to;”* stating that it can be beneficial for better understanding, especially when concepts are explained in their home language. *“In my opinion switching from one language to the other during a lesson can be beneficial to a student in better understanding the*

explanation in their language.” Others emphasized the importance of ensuring all students have a collective understanding of the language used to avoid disadvantaging anyone and to promote better performance and interaction. “*The switch can be beneficial because as Black students we sometimes need a concept to be explained more in our home language so as to help us grasp the concept more.*” Some participants encouraged the practice, while others felt it was acceptable if students could comprehend the language being used. The responses highlight the potential benefits of language switching in facilitating comprehension and engagement during lessons. Moreover, the main objective of language instruction is to provide students with opportunities for self-development, intercultural language knowledge, and communication proficiency in the target language. To effectively accomplish his pedagogical objectives, the teacher must therefore choose the best tactics, one of which is the use of code switching and code mixing [32].

ITEM 5: "Does the use of both your first language and English at the same time during the lessons increase your understanding of the subject?" “All the participants answered "Yes" to the question. This indicates that all respondents believe that using both their first language and English simultaneously during lessons contributes to an increased understanding of the subject matter. Therefore, it can be concluded that for this group of students, integrating both the first language and English during lessons has several potential advantages, including improved understanding, better comprehension of complex concepts, and increased engagement for students from various linguistic backgrounds. It emphasizes how crucial it is to acknowledge and make use of students' indigenous tongues as an effective learning tool. Thus, when planning topic lessons, teachers must tailor their instruction to the needs of English language learners, considering both language proficiency and literacy-related abilities [33].

ITEM 6: Does it benefit you when the instructor uses both your first language and English at the same time during the lesson? 27% of the participants believe that using course materials in both their first language and English would benefit them. They see it to bridge language gaps and improve understanding of complex words. However, the majority (73%) prefer course materials to be in English only. Their reasons include preparing for a diverse work field, familiarity with exam formats, and the perception that English materials are easier to comprehend. Eight out of eleven participants do not see the benefit of bilingual materials, emphasizing the importance of English for future work environments. On the other hand, three out of eleven participants view bilingual materials positively, recognizing their potential to enhance understanding. A comprehensive strategy for teaching languages should consider all the learner's

available languages [34].

ITEM 7: Will you benefit more from the lessons if the instructor presents the words both in your first language and English? Most participants (75%) believe they will benefit more from lessons if the instructor presents the words in both their first language and English. They feel it would lead to improved understanding, especially for those more fluent in their first language than in English. Bilingual instruction is viewed as bridging language gaps, making learning easier, and enhancing content grasp. Some participants note that certain words make more sense in their first language. Overall, they view this approach as advantageous in enhancing their learning experience and comprehension of the subject matter. Considering this, students are simply not engaged in meaningful interaction in the foreign language during class time hence it is imperative for instructors to consider student's codeswitching to accommodate and clarify difficult concepts and to foster student participation [35].

ITEM 8: During a lesson, do you prefer to use your first language when you feel the need to do so? 58 % of the participants prefer to use their first language during a lesson when needed, citing reasons like enhanced clarity, bridging language gaps, increased expressiveness, and accurate expression of views. They find it particularly helpful when facing difficulties in understanding English. On the other hand, 42 % choose not to use their first language, aiming to become more accustomed to English and improve fluency for future job settings where English proficiency is vital. Reasons for choosing "Yes": *"Whatever is said will be much clearer."* *"It bridges the gap from the shortcomings of one language."* *"Using the first language allows for more expressiveness and interaction with the lecturer."* *"It enables more accurate expression of views to verify alignment with the teachings."* *"The use of the first language is helpful when there is a struggle in understanding English, but fluency in English is essential for a job setting."* Reasons for choosing "No": *"Students should get used to using English."* *"There are things they struggle to explain in English if they are not used to speaking it, and their native language becomes a solution."* First language usage during lessons contributes towards student's development on their writing and comprehension of understating the English language as a second language [35,36].

ITEM 9: Do you think it will benefit you when the instructor uses course materials both in your first language and English. The participants' views on whether using course materials in both their first language and English would benefit them are divided. 25 % believe it would be beneficial, as it bridges language gaps and aids understanding. However, 75% do not see the benefit, citing concerns about challenges in a diverse work field, the need to familiarize themselves with exam formats in English, and the belief that all course materials should be in English since exams and tests are conducted

in that language. They also find reading and writing in English easier than in their first language, even if not fluent in English. Overall, while a minority see advantages in bilingual materials, the majority prefer course materials to be in English to align with exam requirements and prepare for future work environments.

ITEM 10: Does the use of both your first language and English at the same time during the lessons helps you improve your English. The participants' views on whether the use of both their first language and English during lessons helps improve their English are evenly divided, with 50% stating "Yes" and 50% saying "No." Those who believe it improves their English cite reasons such as better understanding, bridging language gaps, and learning unfamiliar words. Conversely, those who disagree express concerns about becoming too comfortable in their first language and believe that certain aspects are better understood when explained in their indigenous language. The findings highlight a diversity of opinions among the participants regarding the effectiveness of bilingual instruction in enhancing their English language skills.

ITEM 11: Do you think it should be okay to speak your first language with your classmates during class activities? 64% (7 out of 11 respondents) believe it is okay, as it allows for better communication, bridges language gaps, and facilitates understanding among those who share the language. Conversely, 36% (4 out of 11 respondents) disagree, citing concerns about potential exclusion of those who do not understand the language and the importance of using English as the medium of communication to improve fluency and prepare for future work settings. Some participants express the view that using their first language may hinder their English language development and lead to off-topic discussions. Nonetheless, the majority see value in using the first language during class activities for improved interaction and understanding.

Items	Yes	Sometimes	No	Never
Do you use your first language to ask about a new concept from your classmates during any lesson?	27%	73%	0%	9%
Do you use your first language to explain a new concept to your classmates during the lesson?	55%	18%	9%	9%
Do you use your first language to check the meaning of a new word or concept?	27%	18%	36%	18%
Do you take notes in the language that the instructor uses?	91%	9%	0%	0%
Have you ever switched from one language to another without noticing while taking notes in the classroom?	27%	9%	36%	27%
Do you take notes in your first language regardless of the language used by the instructor or in the lessons?	0%	18%	73%	9%

The findings show that participants frequently use their first language to ask about new concepts (73%) and sometimes to explain concepts to classmates (55%). Additionally, a considerable proportion occasionally switch languages while taking notes (27%). However, the majority (91%) take notes in the language used by the instructor. Only a small percentage (9%) take notes in their first language regardless of the instructor's language. Overall, the participants exhibit a dynamic language usage pattern, showing adaptability to diverse linguistic contexts.

7. Limitations of the study

The study encountered some limitations. Firstly, there was sampling bias due to the limited student population as this study only targeted third year students. This population was chosen based on their experiences and the amount of time they have spent within the university system. Furthermore, the representation of the population influenced self-selection biasness as the responses only reflect third year students' experiences. In turn, these responses were subjective in nature. Lastly, the study only focused on short-term effects. Future research should address these limitations for a more comprehensive understanding of translanguaging and its implication implications for students in this field and other related context.

8. Conclusion

The aim of this study was to establish translanguaging patterns amongst the students in this department; based on the data and responses provided, it is evident that translanguaging, or the practice of switching between languages during teaching and learning, is a common phenomenon among these students. A sizable portion of participants expressed support for the instructor using both English and their first language during lessons. They believe that such language switching can enhance understanding, especially when complex concepts are explained in their native language. It fosters a more inclusive and comfortable learning environment, where students can express themselves fully and engage in effective peer communication. However, some participants also raised concerns about ensuring a collective understanding of the language used to prevent disadvantaging certain individuals. Overall, the findings suggest that translanguaging plays a valuable role in facilitating comprehension, communication, and engagement within this student population. Embracing this multilingual approach can further enrich the learning experience and promote a more inclusive and effective educational setting.

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