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Perceptual Learning Styles Preferences: A Comparison between Persian Language Learners in Second and Foreign Language Settings*

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Abstract

The purpose of the present research is to investigate the perceptual learning style preferences of 131 learners who studied Persian as a second language (from 17 nationalities) in Iran and 97 learners of Persian as a foreign Language in 28 other countries, taking into account predominant perceptual learning style preferences and demographic variables including age, gender, etc. for the first time. The Perceptual Learning Style Preference Questionnaire (PLSPQ) was administered. The descriptive statistics of the learning styles preferences showed that tactile, kinesthetic and auditory are respectively the first three learning style preferences among the learners of Persian as a second language, while the other learners of Persian as a foreign language preferred kinesthetic, tactile and auditory learning styles. The data analysis showed that there were no significant differences between the style scores of the two groups. Also, the findings revealed a significant difference in preference between foreign and second language learners of Persian using group styles. Foreign Persian language learners exhibited a high preference for the group learning style. In addition, the correlation was significant between geographic region (to be or not to be Asian) and different learning styles.

Key words: Perceptual Learning Styles, Language Learner, Second Language, Foreign Language.

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Introduction

Currently the number of second language learners of Persian is increasing both in Iran (as second language) in order to study at Iranian universities and in other countries (as foreign language) studying Persian as a part of their academic curricula. Language learners in Persian language classes differ exceedingly with respect to their ethnicity, age, nationality, cultural background, etc. This variety is the source of different learning style preferences and affects the educational environment of the classrooms. Therefore, it is important, for teachers, to consider various learning styles and varying needs of the Persian language learners more than before.

Many researchers have studied learning style preferences in the past two decades, which indicates the importance of the learning styles and the key role they play in teaching second and foreign languages successfully (Bidabadi & Yamat, 2010). For example, language acquisition speeds vary for different ethnicities and cultural groups. Older learners attempt to find correlation between what they learn and their previous experiences and try to be more independent and autonomous.

Correspondingly, each group prefers a certain learning style and the learning of its members improves significantly when the language instructor employs a compatible teaching style. Some learners make mental images and others merely remember what they experience through feeling or touching during their learning process (Tubic & Glu, 2009). Some learners prefer the lessons to be delivered in the form of lectures and in a step by step manner (analytic and auditory learners) while some learn better when they are allowed to extract information in a holistic manner from graphs and charts (global or visual learners) (Frisby, 1993).

Therefore, it seems that no two students learn anything the same way, just as no two teachers teach the same way too. The result of teaching students with the same teaching style is a learning gap that will probably be observed between learners from different educational and cultural backgrounds, even though they speak the same language.

Cohen and Macarou (2007) believe that in an ideal environment, language instructors should know about their students' learning style preferences. This knowledge enables them to help the students learn the target language more easily and rapidly.

In this study, the researcher first defines the different Perceptual learning style preferences, next he presents the data collected from the Reid's Perceptual Learning Style Preference Questionnaires (PLSPQ) administered to non-Iranian language learners. Then the results, based on research questions are explored and explained, for each group to reach a conclusion.

Theoretical Framework

Learning styles are discussed in educational psychology studies extensively, but they are particularly discussed in details in the language learning contexts. Studies conducted by Coffield and his colleagues (2004) show that dozens of models are Proposed for learning styles preferences. Although, some degree of overlap is seen among these models, the main differences between them originate from the various attributes which the designers and their advocates find essential as individual differences and what they believe is vital for educational progress.

For example, some models are concerned about one of the following qualities: environmental (e.g. temperature and sound), emotional (e.g. motivation and persistence), sociological (e.g., working alone or with others), and physical traits (e.g., time of day and need for mobility). Some of the models consider the perceptual dimensions (concrete or abstract) while others pay attention to ordering (sequential or random). Some of the learning styles preferences are defined in term of the two independent dimensions of cognitive organizing (holistic or analytic) and mental representation (verbal or imagery). The existence of these various models and different views of what forms learning styles makes it rather difficult to reach a cohesive definition (Coffield, et al., 2004). Since it is nearly impossible to discuss all of the models here, a simple definition of the learning styles preferences and a model that is used in our survey, are presented.

A learning style preference is the person's internal characteristic which cannot be observed and the language learner opts them to perceive and process the information unconsciously (Reid, 1998). Learning style preferences indicate the ways that individuals select to learn and originate from the personality variables including social-cultural backgrounds, psychological and cognitive characteristics and previous educational experiences. Celcia-Murcia (2001) defines learning styles as the general approaches that learners use in acquiring a new language. MacKracher (2004) defines learning style preferences as "the characteristic cognitive, affective, social, and physiological behaviors that serve as relatively stable indicators of how learners perceive, interact with, and respond to the learning environment." (p. 71)

Reid (1995) divides the learning style preferences into two major categories: cognitive and sensory. The sensory learning style preferences consist of three groups including personality, environmental and perceptual. This survey focuses on the last group. Reid believes that sensory/ perceptual learning styles are the main learning style in the field of second and foreign languages learning. They are related to the physical environment in which the learning takes place and are related to using senses to perceive data.

Reid (1995) divides perceptual learning styles into visual, auditory, kinesthetic, tactile, group and individual styles:

- Visual Language learners often use books, classroom boards and displays better than others and just memorize vocabularies. They don't need oral explanation as much as others and should write down oral information in order to be able to memorize them.
- Auditory Language learners learn through hearing the vocabularies in conversations and need oral explanation. Since they learn better by listening to educational tapes and radio and watching television, they may develop their speaking proficiency faster than others.

They whisper or read out loud the new lessons and are used to studying while listening to a light music. They prefer to hear the lessons

from someone else rather than reading it themselves. They benefit most from classroom conversations, talking to the language instructor, teaching others and converting written texts to audio texts.

- Kinesthetic learners often need some form of physical activity in order to learn more efficiently. Sitting in a classroom is difficult for most of them and it is helpful for them to take notes, reading the lessons while walking accompanied by body motions. Cassidy, Kreitner and Kreitner (2010) believe that this group of language learners needs activities which require their complete participation and involvement including doing a research, performing in a play, designing and etc.
- Tactile Language learners learn more successfully when they are given the opportunity to experience and conduct a physical activity, e.g. experimenting at a laboratory, moving and making models, touching and working with different materials. Also, writing notes and reports of their classroom activities help them to understand the new information considerably.
- For language learners who have group learning style preference, it is easier when they study with at least one other student. These language learners give value to group and classroom work and interacting with others.
- Language learners with individual learning style preference learn more effectively when they work alone and by themselves.

Ehrman (1996) believes that language learning style preferences are not dichotomous (black or white, present or absent). Learning style preferences form a continuum and they may cross each other's borders. For example, one can be more extrovert than introvert or may prefer visual style as much as auditory style and only a little more than kinesthetic and tactile styles. It is not common to have all or none of the style preferences.

Review of Literature

One of the oldest questions of the educational researchers is

investigation of the effect of the individual differences on learning a language. There are several studies about different languages which are reviewed briefly.

Profile in second language

The result of a comparative study on college language learners' English course conducted by Reid (1987) showed that there are considerable cultural differences in perceptual language learning style between Korean, Chinese, Japanese, Malaysian, Arab and Spanish students. According to this study, students preferred perceptual kinesthetic and tactile learning styles intensely and most of them responded to group learning style negatively.

Reid also found out that those students who had stayed more than three years in the United States, opted auditory learning style much more than the students who had stayed less than that time. The mean scores of the learning styles preferences of native speakers and those of whom that had lived longer in the United States were the same.

In addition, visual learning style preference is a considerably higher priority for Korean students compared to American and Japanese students. Chinese and Arab students also pick a visual learning style. Japanese students prefer auditory learning style less than all other groups of students, meaningfully, and less than American students. Auditory learning style preference is the first priority among Chinese and Arab students. English speakers prefer group work less than others, meaningfully, and less than Malay speakers. Reid's findings have significant influence on teaching English as the second language at college level.

Park (1997) compared learning styles preferences of Chinese, Philippines, Korean, Vietnamese and English high school students and found that visual learning style preference was observed among Chinese, Korean and Philippines students more frequently than English students. He/she, also, found that Chinese, Korean and English students disfavored group learning style while it is the most frequent style among Vietnamese students and is considered a subsidiary priority for

Philippines students.

Park (2002) conducted another study to investigate learning style profiles of Armenian, Hong Kong, Korean, Vietnamese and Mexican language learners considering their gender, language level and the duration of their stay in the United State, using Reid Questionnaire. This study confirmed Park's previous finding (1997) and showed that there were quite significant relations between ethnicity and learning level and between language level and learning style preferences. Multiple comparisons of means tests showed that language learners at intermediate levels preferred auditory learning style better than language learners at basic levels. Moreover, language learners of intermediate and advanced levels gave a considerably high priority to individual learning style preference. Finally, the same as previous finding, all tested subjects at undergraduate university-levels preferred kinesthetic and tactile learning styles. However the visual learning style was either major or minor preferences of all of the groups.

Abu-Asba, Azman and Mustafa (2012) investigated about perceptual learning style preferences of 179 Yemeni students of Sciences at Sana'a University in order to improve their learning. They based their survey on Reid's learning styles classification and collected the necessary data by questionnaires, interviews and classroom observation. The Results showed that the tactile and kinesthetic styles were the most prevalent styles and the auditory style was the third priority.

Profile in foreign language

Hyland (1993) studied predominant learning style preferences of 405 (182 male and 223 female) Japanese students at undergraduate level. The students were from 8 Japanese universities and 1 New Zealander College who studied English as foreign language. The results indicated that the Japanese students appear to have no strong learning style preferences. However they showed little interest in tactile, kinesthetic and auditory learning styles. Hyland believes that if the instructors of the Japanese students were native English speakers, the students did not intend to change their learning style preferences.

Peacock (2001) studied learning style preferences of 206 students of English as foreign language at Hong Kong University by using Reid's questionnaires and interviews. He, also, modified the Reid's questionnaire (1987) by adding a self-declaring section and used it to investigate teaching styles of 46 language instructors of the University, as well. The results showed that students preferred kinesthetic and auditory style preferences and disfavored group and individual learning styles. However, the instructors preferred Kinesthetic, group and auditory teaching styles and disfavored tactile and individual teaching styles. The finding, also, showed that students with group learning style preferences had weaker English proficiency.

Although learning style preferences are essential in adequate learning and effective teaching, reviewing the studies about students' and language learners' learning styles preferences shows that there has been no research or survey about learning Persian language as second or foreign language.

In addition, while the number of nationalities of language learners in other studies has been limited, in the present survey, the data has been collected from Persian language learners from numerous countries. The researcher also, considered the effect of levels of education (graduate and undergraduate degrees) for the first time. Therefore, the following five research questions are addressed in this study:

Research Questions

1. Which perceptual learning styles do non-Iranians learning Persian language in Iran as asecond language (PSL), favor more frequently?
2. Which perceptual learning styles do non-Iranian learning Persian language in other countries as a foreign language (PFL) favor more frequently?
3. Is there a significant difference between perceptual learning styles of Persian as a second language (PSL) learners group and Persian as a foreign language (PFL) learners group?
4. Is there a significant difference between the preferences of Persian as a second language (PSL) learners group and Persian as a foreign

language (PFL) learners group?

5. How the two groups (second or foreign language) and demographic variables (gender, levels of education, geographic region and age) interact and affect learning style preferences?

Method

In the present survey, Reid's perceptual learning style preferences questionnaire (PLSPQ) (Reid, 1987) is administrated, which is designed and validated to determine the perceptual learning style preferences of both native and non-native speakers. According to DeCapua and Wintergerst (2004), it was the most widely used learning styles instrument for non-native speakers of English.

This questionnaire contains totally 30 questions including 5 questions for each of 6 six categories of learning styles. It assesses the preferred styles of the learners, using their four perceptual preferences: visual, auditory, kinesthetic, and tactile, and two social preferences: group and individual. Language learners scored the questions by the Likert scale with five options from "Strongly agree" (score 5) to "Strongly disagree" (score. 1).

In this questionnaire, questions no. 6, 10, 12, 24 and 29 indicate visual learning style preference, no. 22, 14, 16, 22 and 25 indicate tactile learning style preference, no. 1, 7, 9, 17 and 20 indicate auditory learning style preference, no. 3, 4, 5, 21 and 23 indicate group learning style preference, no. 13, 18, 27, 28 and 30 indicate individual learning style preference and no. 2, 8, 15, 19 and 26 indicate kinesthetic learning style preference.

Learning style preference of each language learner is determined based on their mean scores for each learning style preference as follows: a mean score between 38-50 shows that the language learner prefers one or more learning style preference(s); a mean score between 25-37 shows that the language learner is interested a little in the 6 major learning style preferences but this has no impact on their learning; a mean score between 0-24 shows that the language learner has no interest in any of the learning style preferences and this has influenced

their learning negatively.

Participants

A total number of 228 Persian language learners participated in this study, chosen by random cluster sampling from advanced Persian language courses. 131 learners from 17 countries were studying Persian as a second language in Iran and 97 learners were studying Persian as a foreign language in 28 other countries. The learners in Iran were chosen randomly from Persian classes of Imam Khomeini International University and non-Iranians who learnt Persian language in other countries as a foreign language were selected from among the participants of the "81st Persian Language Refresher Course", held in Qazvin in the summer of 2014 for a period of 4 weeks. The researcher provided instructions on how to complete the questionnaire. To obtain the reliability of the data, these groups of participants were informed that there was no right or wrong answer, and the questionnaire was only for the research purposes.

Research instrument

In this survey research, Reid's perceptual learning style preferences questionnaire (Reid, 1987) was translated into Persian and modified for non-Iranian Persian learners. Then the reliability and validity of the Persian questionnaire was evaluated. It was processed by SPSS computer software. The questionnaire was also tested beforehand and the reliability coefficient for the Cronbach's alpha was calculated 0.72. After Persian language learners answered the questions, the answers were coded and then the data was processed by SPSS software and statistical tests.

Presentation of data

The collected data was coded and processed and analyzed by statistical computer software SPSS. In order to examine the normality of variables, we used the Kolmogorov–Smirnov test. For comparing scores of the perceptual learning styles preferences of the two groups (second and foreign language), if the data was normal, the researcher used the independent T test, and if it was not normal, we applied Mann-Whitney test. To compare priorities of the learning styles in the two

groups of second and foreign language, we used Chi-square test. Finally, the researcher used two-way ANOVA test to compare scores of different learning styles preferences with respects to demographic variables (i.e. gender, age, levels of education and geographic region) of the two groups of second and foreign language learners.

1. Profile of perceptual learning style preferences of PSL group

The summary of perceptual learning style priorities is depicted in table 1 for Persian as a second language group. The results of descriptive statistics indicate that tactile learning style with % 67.2, kinesthetic learning style with % 62.6 and auditory learning style with 56.5 are first, second and third preferences of learners in Persian as a second language respectively.

Table 1. Frequency distribution of perceptual learning styles preferences in PSL group

priority / learning style	major		minor		negative	
	number	percent	number	percent	number	percent
visual	60	45.8	66	50.4	5	3.8
tactile	88	67.2	42	32.1	1	0.8
auditory	74	65.5	57	43.5	0.	0.0
group	42	32.1	81	61.8	8	6.1
kinesthetic	82	62.6	48	36.6	1	0.8
individual	44	33.6	77	58.8	10	7.6

2. Profile of perceptual learning style preferences of PFL group

The summary of learning style preferences is depicted in table 2 for Persian as a foreign language group. The statistical description of the priorities indicates that kinesthetic learning style with % 60.9, tactile learning style with % 60.9 and auditory learning style with % 59.8 are first, second and third main preferences of learners in Persian as a second language respectively.

Table 2. Frequency distribution of perceptual learning styles preferences in PFL group

priority / learning style	major		minor		negative	
	number	percent	number	percent	number	Percent
tactile	41	42.3	53	54.6	3	3.1
visual	59	60.9	36	37.0	2	2.1
auditory	58	59.8	37	38.1	2	2.1
group	46	47.4	44	45.4	7	7.2
kinesthetic	59	60.9	37	38.1	1	1.0
individual	37	38.1	49	50.5	11	11.4

Below we compare perceptual learning style preferences of Persian as a second language group and Persian as a foreign language group using appropriate statistical tests.

3. Comparing scores of perceptual learning styles preferences of PSL group and PFL group

In order to be able to use variable tests such as independent T teat, normality of quantitative variables should be tested by Kolmogorov–Smirnov test. The result showed that variables of scores of (visual, tactile, auditory, kinesthetic and individual) styles preferences for the two groups of Persian as a second language and Persian as a foreign language had normal distributions. However, the score variable distribution of group learning style was not normal for Persian as a foreign language group. Therefore, to examine the main hypothesis, we used independent T test (for normally distributed variables) and Mann-Whitney test (for non- normally distributed variables).

The summary of the results of scores of independent T test for scores of (visual, tactile, auditory, kinesthetic and individual) styles and Mann-Whitney test for scores of group style is depicted in table 3.

Table 3. Comparing scores of different learning style preferences of PSL group and PFL group

variable	group	mean	standard deviation	test statistic	p-value
Visual	PSL	36.335	5.497	0.276	0.783

style score	PFL	36.123	6.033		
Tactile style score	PSL	39.145	5.291	1.015	0.311
	PFL	38.350	6.512		
Auditory style score	PSL	37.908	5.143	1.407	0.161
	PFL	39.010	6.318		
Group style score	PSL	34.793	9.702	1.685	0.092
	PFL	35.773	8.280		
Kinesthetic style score	PSL	38.793	5.404	0.173	0.862
	PFL	38.927	6.218		
Individual style score	PSL	34.091	6.101	0.078	0.940
	PFL	34.020	7.460		

As one can see, tests are not significant at the 0.05 level (p-value<0.05), i.e. there is no significant difference between scores of (visual, tactile, auditory, group, kinesthetic and individual) learning styles in the two groups of Persian as a second language and Persian as a foreign language.

6. Comparing priorities of learning styles of PSL group and PFL group

The researcher used Chi-square test to compare learning styles priorities for Persian as second language group and Persian as foreign language group.

The summary of the results of scores of Chi-square test for comparing frequency distribution of visual, tactile and auditory learning styles for Persian as second language group and Persian as foreign language group is depicted in table 4.

As one can see, this is not significant (p-value<0.05), i.e. there is no significant difference between these styles priorities in the two groups of Persian as a second language and Persian as a foreign language.

Table 4. Comparing frequency distribution of visual, tactile and auditory learning style priorities for PSL group and PFL group

priority / group	**major**	**minor**	**negative**

visual	**PSL**	(45.8%) 60	(50.4%) 66	(3.8%) 5
	PFL	(42.3%) 41	(54.6%) 53	(3.1%) 3
	Test result	P-value=1.805 x^2=0.434		
tactile	**PSL**	(67.2%) 88	(32.1%) 42	(0.8%) 1
	PFL	(60.8%) 59	(37.1%) 36	(2.1%) 2
	Test result	P-value=0.477 x^2=1.479		
auditory	**PSL**	(56.5%) 74	(43.5%) 57	(0.0%) 0
	PFL	(59.8%) 58	(38.1%) 37	(2.1%) 2
	Test result	P-value=0.202 x^2=3.196		

The summary of the results of scores of Chi-square test for comparing frequency distribution of individual, group and kinesthetic styles for Persian as a second language group and Persian as a foreign language group is depicted in table 5.

As one can see, test is not meaningful (p-value>0.05), i.e. there is no meaningful difference between these styles priorities in the two groups of Persian as a second language and Persian as a foreign language.

Table 5. Comparing frequency distribution of group, individual and kinesthetic style priorities for PSL group and PFL group

priority / **group**		major	minor	negative
visual	PSL	(32.1%) 42	(61.8%) 81	(6.1%) 8

	PFL	(47.4%) 46	(45.4%) 44	(7.2%) 7
	Test result	p-value=0.044 x^2=6.270		
tactile	PSL	(33.6%) 44	(58.8%) 77	(7.6%) 10
	PFL	(38.1%) 37	(50.5%) 49	(11.3%) 11
	Test result	p-value=0.397 x^2=1.846		
auditory	PSL	(62.6%) 82	(36.6%) 48	(0.8%) 1
	PFL	(60.8%) 59	(38.1%) 37	(1.0%) 1
	Test result	p-value=0.044 x^2=6.270		

6. Scores review of learning styles preferences of PSL group and PFL group and their interaction with demographic variables

Two-Way ANOVA test is used in order to study the interactions of demographic variables and second and foreign language groups with learning styles scores. The summary of the results of the interaction between the two groups (Persian as a second language and Persian as a foreign language) and different demographic variables (gender, levels of education, geographic region and age) with scores of learning style preferences is depicted in table 6.

Table 6. Summary of Two-Way ANOVA test scores of learning style preferences

Style	Variation source	Mean square	Test statistic (F)	Level of meaningfulness
visual	group and gender interaction	3.471	0.107	0.899

	group and education interaction	10.116	0.312	0.732
	group and geographic region interaction	117.922	3.637	0.028
	group and age interaction	19.732	0.609	0.545
tactile	group and gender interaction	2.459	0.076	0.927
	group and education interaction	26.871	0.833	0.436
	group and geographic region interaction	187.239	5.805	0.004
	group and age interaction	11.724	0.363	0.696
auditory	group and gender interaction	41.436	1.436	0.240
	group and education interaction	21.652	0.751	0.473
	group and geographic region interaction	270.606	9.381	0.000
	group and age interaction	0.447	0.015	0.985
group	group and gender interaction	8.282	0.103	0.902
	group and education interaction	13.384	0.166	0.847
	group and geographic region interaction	321.176	3.881	0.022
	group and age interaction	20.851	0.259	0.772
individual	group and gender interaction	58.509	1.394	0.251
	group and education interaction	1.232	0.029	0.971

	group and geographic region interaction	211.320	5.033	0.007
	group and age interaction	12.451	0.297	0.744
kinesthetic	group and gender interaction	8.298	0.268	0.765
	group and education interaction	11.625	0.376	0.678
	group and geographic region interaction	276.387	8.934	0.000
	group and age interaction	49.336	1.595	0.205

As one can see, only the interaction of geographic region and group (second language and foreign language) with scores of the six learning style preferences is significant. It means that to be or not to be Asian in any group has a significant effect on learning style preferences.

Briefly, since there have been no other studies about comparing learning style preferences of second and foreign language learners for questions no. 3, 4 and 5 of this research, the results obtained in the present study cannot be compared with any. However, what can be said about the first and second questions of the research is that the results are compatible with the results obtained from studies done by Reid (1987), Abou-Asba, Azman and Mustaffa (2012) and Park (2002). The results about Persian as a foreign language confirm the findings of Peacock (2001), but contradict the results of Hyhland (1993) which claimed that language learners showed low tendency toward tactile, kinesthetic and auditory learning styles.

Conclusion

This survey attempts to find an answer to the question of whether the learning style preferences are different between second language learners and foreign language learners. The results indicate learning style preferences are different in second and foreign language classes.

In general, instructors consider qualities such as intelligence and language aptitude in most classes, but in order to help language learners achieve success, paying attention to the language learning style preferences is a much more important factor. Nowadays, one-way teaching by language instructors is not adequate anymore. Because of the existence of various teaching techniques for creating an active learning environment in which language learners actually get involved with every learning style, instructors should highlight interactive and communicative aspects of learning and teaching.

Each language learner should be able to learn new concepts, receive new information, remember and recall in their own special way. The learner, who finds learning difficult with an auditory learning style, may correspondingly face problems in developing their speaking proficiency. They may tend to a pick a more predominant learning style. For example, they may choose to use computer programs or to watch videos and movies with subtitles to be able to see what they hear.

Therefore, language instructors should be committed to make changes in their classes to meet their language learners' learning style preferences. For example, they can redesign the room, divide learners to small groups, have the learners sit in a circle and discuss about a given subject and other techniques including teamwork learning, brainstorming and sharing creativity projects in small group of classmates.

Another important issue in learning is that the instructor should make the learners understand that they are responsible for their own learning. In order to achieve this aim, language learners should figure out their personal learning style preferences and learn about each style's characteristics. Then the instructor should explain that there are no superior style preferences and each learning style preference has its own pros and cons regarding the nature of which learners intend to learn. So, if they align their learning styles with their goals they can learn more efficiently and more easily.

Due to limitations of this study, some precautions should be

considered for generalizing the results. In future studies, it's better to use more than one method such as think-aloud protocol, journals and longitudinal study to explore learning style preferences. It is necessary to conduct more research about learning Persian language at all levels using greater sample sizes to verify the results of the present survey.

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