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RESEARCH ARTICLE

THE STUDY OF LANGUAGE ACADEMY POLY WORDS, NUMBER 2 (PHYSICS 1 BEGINNING HALF).

Mahdieh Farazfar.

A graduate student in general linguistics.

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*Corresponding Author

Mahdieh Farazfar.

Abstract

This paper is a library study which pays to evaluate, constructing the word in Farsi language in physics one thousand words book, in the case of the derivative, compound, derivative - compound, and extensiveness in Persian language. It also has been given to the incidence rate of application, in terms of construction Academy words, and Persian Language and Literature. Considered view in this study is "structuralism", and the method of the study Analytical - descriptive. In this paper the researchers sought to answer this question that, in the word-building in the Academy, which types of morphology is mostly used and which one is less used? The Academy word-building, which affixes (prefix or suffix) have the most used and which is used less? Which present or past infinitive has mostly used, and which is used less? Which is the source of most applications? Which preposition usage is more or less used? Which Western prefix (prefix or suffix) are used more or less? Which Western word is more or less used? Which Western verbs (present or past) are more or less used?

The results show that, it seems that in the word-building in the Academy, words (derivatives) are mostly used, and derivative – compound words are used less frequently. In word-building in the Academy, it seems that Persian prefix "BAR" is used more often, and "POR" is used less, and the Persian suffix of "EI" is used more often, and "BAAN" is used less. It seems that present infinitive of "TAB" and Past infinitive of "KHORD" are used more and the infinitive of "AMIZ" and past infinitive of "GEREFT&SHENID" are used less. It seems that, in the word-building in the Academy, "infinitive" is used. In the Academy of word-building, the preposition of "BI" is used more, and the preposition of "DAR" is least used. It seems that in the Academy of word-building, Western links have been used. It seems that in the Academy of word-building, Western word of "acoustic" is more and "atom", "cast" and "Harter" are used less. It seems that in the Academy of word-building, infinitive (present or the past) of west are used.

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Introduction:-

Persian language and our history and culture and civilization, has the ancient and inseparable tie so that, today it is considered as one of the most important pillars of our national identity as Iranians. For this reason it is considered as the protection and strengthening of the Persian language, honoring the cultural heritage and strengthening the foundation of our national identity. Moreover, Persian language is the official language of our country and our intellectual and scientific language and communication training, and an important part of our thinking, in the framework of the rules, depends on the quality of our language, which is the language of Farsi. The theme of

borrowing, language and loan words, has always been regarded in everyone's life for linguists and writers. If you accept the fact that most languages in the world are not far from the phenomenon of borrowing, and always, they have been borrowed elements from other languages, the importance of the case would be clear. In our country the task of word formation is performed in the body known as the "Academy". The organization after the Islamic Revolution, has officially begun its operation in 1992, and according to Samii and Poorjavadi (1994:2) has introduced its objectives to the academy from scratch, the word formation and presumably, for loan words.

The Academies in any country, are organizations and institutions that operated by the government or under its supervision, and Vazhhgzyn and finding equivalents for foreign words and expressions, is one of its important tasks. Word formation Group, during the sixteen years of its activity has adopted nearly thirty thousand words in various scientific fields. During these years, many experts worked with the band, and in this period, approved terms of the expert groups go far from the border of thousand words, and formulating the subjective cultures in this area is necessary (Physics thousand words, 2012: 1).

Hence, the terminology group sought to develop the cultures of the subject, entitled A Thousand Words, and provide the scientific community, and this thousand words are the result of several years of specialized terminology groups which is published in one volume. Terminology group plans, from now on, with the approval of every thousand words in a field of culture to publish its lexicon (ibid., 15).

A few things about this lexicon are essential. The designations of specialized groups in this culture are done according to the process of forming a group and the time to study the word in different sections. Hence, many of the words that are listed as physics, for example, are related to the fields of mechanics or electricity, but because at the time of their review, concerned groups weren't established in academy, these terms are investigated are entitled physics (ibid. 31).

In this article we have tried to investigate and identify and evaluate the Academy of language word-building, through one of its volumes, and it should also be added that so far, the Persian Academy has published numerous volumes about the words and terms that are made. This research deals with the study of Morphology, morphological structure used in the terms approved by the Academy, taken from the book "Physics thousand words," half its inception, from the Persian letters of (a) to (Z). In this paper the researchers sought to answer this question that, in the word-building in the Academy, which types of morphology is mostly used and which one is less used? The Academy word-building, which affixes (prefix or suffix) have the most used and which is used less? Which present or past infinitive has mostly used, and which is used less? Which is the source of most applications? Which preposition usage is more or less used? Which Western prefix (prefix or suffix) are used more or less? Which Western word is more or less used? Which Western verbs (present or past) are more or less used?

Background:-

John Lyons (1990), in his book "Language and Linguistics", stated linguistic topics in ten chapters. But in the view of John Lyons, grammar is in relation to the distribution of words in the sentence level, and the methodology of comply morphological and grammatical words than the rule. But morphology, taking into accounts the grammatical rules and its own rules not only capture but also follow the rules of derivation. George Yule (1996), in his book "The study of language", studied linguistics at twenty-one chapters. In the seventh and eighth chapters he described morphology. The seventh chapter has spoken about a variety of morphology methods, like the coinage, borrowing, composition, etc., and then affixes types have been proposed, such as prefixes and suffixes, and in the end, it is a multi-process to produce Dictionary. Spenser (1998), in conjugative theory, believes that in some languages, for word building, composition, derivation and other processes are used but there are languages that they use only, combination to build compound words, such as Chinese and Vietnamese. In combination, it may build two name components, or an adjective and a noun, or a noun and an adjective, or a verb and noun and ... Spenser defines the word as the smallest free form, namely, a unit which can exist alone. G.Booij (2004) believes that there are many similarities between compounding and derivation, which leads to the conclusion that, affixes derivation exist, as a component, in the morphological structure of words. As seen in combination, derivative morphemes act as building blocks in the morphological structure.

Kalbasi (1992), in his book " derivative morphology in today's Farsi", at the Four Seasons, has paid to this issue. In the first chapter, theoretical and general definitions of morphology, as well as, inflectional morphology, derivative morphology, word morph types, types of clamps affixes, and clitic are stated. In the second chapter it was

investigated the types of declinable affixes in Persian, as well as inflectional affixes of Arabic in Persian. The third chapter is about the word composed in Persian, which has been proposed, to be precise. In this chapter, the words were classified into two groups, non-current and current compound words, each of the categories studied in more subtle branches. In the fourth quarter, derived words in Persian and Persian derivation also links what in earlier times, whether in the Persian discussed today. In this book are twelve ways of making a compound word, along with the 76 suffix derivation, 7 prefix derivation, and 5 passed overnight. Tabatabai (1997), in an act of pure Persian and morphology, we get the design brief of mere knowledge or Morphology and its theoretical basis, checking the derivation of simple verbs. In the first chapter of his book, it is explained new phenomena and new concepts in any language, in which five ways are cited including semantic expanding, borrowing, initialism, word creation and morphology, and then, by dividing obstacles to institutionalization of neologisms into two obstacles, describes in detail the factors within and outside the linguistic language.

Arbab Soleimani (1998) has performed the analysis of morphology and has checked new words adopted by the Academy. Each new word in the Academy is examined from three perspectives, including the "syntax", "sense of proportion" and "the necessity or non-necessity of finding / building for it." Amirarjmand (1998), his master's thesis, with the theme, descriptive dictionary of terms, spend, spend explains all terms related to your area, and these explanations are of Iranian and non-Iranian scholars. In fact, this is the end of a different set of terms into the field. This thesis is a descriptive work, researchers from other definitions. Haghshenas (1999), in his article, entitled morphology within the context of a cure, initially terminology, four mechanisms including borrowing, expansion of meaning, syntax and morphology, and as each is concerned, and after comparing these four works, concludes that, "none of borrowing mechanisms, the development of semantic or syntax, not the size of morphology, to help spend derivation, is increasingly responsive to the needs, and apparently inexhaustible Persian language, new words, in order to formulate a newfound concepts, and according to that, morphology also depends, to keep prolific and efficiently the language derivative morphology.

Theoretical framework:-

Structuralism is one of the most common ideas in the social sciences. According to this way of thinking, a number of esoteric and intangible structures which constitute the basic framework behind a community. Constructivist method was used so extensively in the second half of the twentieth century by the analysts of language, culture, philosophy, mathematics and society. Ferdinand Saussure's ideas can be considered as the beginnings of this school. He, however, was not limited only to structuralist linguistics and applied in different ways (Jahanbegloo, 2005: 50). Structuralism is looking for a way to describe and report internal link, in which, the meaning is created through it in a culture. According to structuralist thought, meaning in a culture emerges from phenomena and various functions, which make Semantic Systems (ibid. 51).

From a historical perspective, it can be explained de Saussure's ideas under three headings: the first is that de Saussure put it clearly, both fundamental and inevitable linguistic studies, and explains them, and this is what linguists have assumed were before him or her had been granted or ignored it altogether, and they were then, after synchronization and later in time. After it is coincidence that, in order to raise it, every time, in every slice of time, as a stand-alone communication system, and examine, the sequency in line with it, to study explore the historical changes which occur in the course of time, the language (Ibid., 418).

Second, de Saussure named linguistic ability language speakers as the phenomenon or linguistic data (the parts of speech), and recognition and they are, respectively, speech and language. Although the speech is in fact the linguistic data which is available to us with no medium, the subject matter of linguistics, however, is the language of any society and it consists of three parts: first is vocabulary and the other is grammar and another is phonemic. Each of these three individual earns from any linguistic community, and especially, during the community breeding, and replaces in your brain and based on that, the speaker speaks in his language, and understands other words (ibid., 419).

Third, de Saussure showed that any language should be considered, such as the state or the experimental design, the case is closed elements, which are bilateral relations with each other, and the elements and relationships, are or words, and or morphological, and syntactic, or phonology, and in terms of synchronization, any language would, in the same or Sazgan system and described the plans, and not as a mass of facts and elements that separate from each other, and Khvdsndhand (ibid, 420).

Morphology:-

The first studies on the language of study are started on the word. For example, the ancient Greek philosophers paid attention to the meanings of words and grammar, as well as the formation of words and the meaning of words changes occurred throughout history. Despite this, morphology is not considered as independent area, usually beside syntax which is internal structure review of the sentences, would be evaluated in one area. As we said, until pre-nineteenth century, morphology was taken into considered beside syntax, under the general command of the language in the form of historical studies, as "AlloQah" (Afrashi, 2007: 63). In morphology, there are two layers of inflectional and derivative (Kalbasi, 1992: 19). In inflectional morphology, a part of the word is taken into consideration, which deals directly with its syntactic function (ibid. 20). In mere derivation, those part of morphology is taken into consideration that belongs to that part of the word, regardless of its syntactic function, and in fact, the constitution, through which comes the word. For example, when you say that, "pot (Goldan in persian)" is composed of "Gol" and "Da~an", or "factory (Karkhaneh in persian)" is composed of "Ka~ar" and "Kha~aneh", the study has been done derivatively. Derivative morphology is called, «Word Formating» (ibid.).

Word:-

- ❖ In terms of morphological, word construction is language which is made from one or more morpheme (Afrashi, 2007: 65). The term can be defined four categories.
- ❖ In the view of phonetic: it is a phoneme which is made up of one or more syllables, consists from a lean, and at the beginning and end of a «Juncture», which can be silent at the beginning and end of it.
- ❖ In terms of morphological structure: it consists of one or more morphs and the hierarchy of grammar is used in the building «Pharse».
- ❖ In terms of meaning: the meaning of a unit, which implies one or more individual concept.
- ❖ In terms of spelling: has spelling unity in the sense that, in writing, usually observed on either side of the interval (Kalbasi, 1992: 21).
- ❖ Morpheme: the smallest meaningful unit or having role in language, in which the hierarchy of grammar is used in the structure of the Phoneme. Morpheme is an abstract concept in which its objective presentation is called "word", and its species are called "Allmorph" (ibid.).

Morpheme and its variants:-

Another lexical unit which is studied in the field spending is morpheme. Morpheme is the smallest unit of language, either has meaning or grammatical function, as well as in different positions, it is used in words structure. For example, consider the word of "cooking (in persian A~ashpazi)". In the structure of this word it can be introduced morphemes of "soup =Aash" and "cooking=Paz" and "ii" (Afrashi, 2007: 67). Depending on the fact that a morpheme can be used independently or only in connection to other components of vocabulary, morpheme is divided into two categories of free and bound. For example, the word "book" is a free morpheme, because it can be used without connecting to component of other words, but it alone does not apply bound morpheme (ibid., 68).

Affixes and its variants:-

Affixes in terms of role are divided into two categories of flection and derivation and in terms of location, is divided into three categories: prefix, infix and suffix.

Affixes: affixes are the most important category of morphemes. Prefixes and suffixes are used only in the connection of components to the other words. For example, the word "Mi" in "Miravam" and "-Zar" in "Golzar", are bound and grammatical morphemes (ibid., 69). Inflectional affixes have the syntactic function of the word processing that for performing a role in syntactic structures, and their usage is analogical. That can be used by all categories of words and receives less exceptions, such as "-Ha" in "Zanha" and "b" in "Bood" (Kalbasi, 1992: 23).

Derived affixes play morphology role, which means that make new words, such as "Naak" in "Dardnaak" and "-Gar" in "Karghar" (ibid., 24). Affixes in terms of location, relative to the base of the word, are divided into three categories: prefix, is an affix which is before the base such as the "Naa" in "Naadan" after the extension is basic, like "-Ban" in the "Mehrbaan" and, infix which is placed inside the base. In the Persian language there is no infix (ibid., 24).

Terminology & Morphology:-

Morphology means an active process, producing linguistic words in different ways. These processes divide into two main and derivative parts. Besides, there are another morphological processes, producing new words (Afrashi, 2007: pages 84, 87). Using these two ways (main and derivative ones) are considered as economical ways, in order to making new concepts (Tabatabaie, 2003: page 18).

- ❖ Derivative: In Farsi, word is divided into 3 parts, from derivative structure's views: simple, compound and complex (Kalbasi, 1992: 35). Simple words are equal to phonemes, therefore, they have no morphological structure and just used as simple-base words in morphological structures, such as good, work (ibid). Compound words consist of two or more phonemes, like good character, low-label (ibid). Complex words consist of one or more phonemes, combined with one or more derivative, like being benevolence, under-employment (ibid, 36). Kalbasi divides Persian Complex words into verbal and non-verbal groups:
- ❖ Non-Verbal complex words: Those play verb's role, but, there is no verbal identifier, following them (ibid, 38).
- ❖ Verbal complex words: They are related to different kinds of simple, compound and complex verbs (ibid).

Tabatabaie defines morphology, in his books "Farsi simple verb & morphology. But, he believes morphology means considering how morphs are composed to each other and making a word, in other words, it is related to internal structure of word (Tabatabaie, 1997: 8)

Samiei Gilani (2000: 13) has not confined morphology into syntax and derivative. He states other ways, for making morphology, for example, borrowing and composing. Moreover, in Farsi Literary and Language academy (2009: 9 and 12), terminology means as a process, making or selecting one or sometimes more words, for a defined scientific, technical, professional or artistic concept. Morphology is one kind of terminology, being related into making a new derivative, complex or derivative complex word (ibid, 659)

Academy, as an administrative institution of linguistic planning

When representatives of war, education and endowment & industry established a council in 1924, in order to paying attention into condition of emerged words in military affairs, they did not clearly know establishing the highest decision-making authority in Persian language and literature. The result of eight-years attempts of literary societies in Qajar era-being established in the thick of constitutional periods-was inventing 300 words, such as airplane, air port, pilot, flaming, barometer and anemometer.

Above-mentioned society was introduced in 1922 by a new organization, named inventing words and scientific terms, directed by Dr-Eissa seddigh Alam.

Then, it became as a center for activities of students in field of natural science, mathematics, physics, chemistry, literature and philosophy. Being guided by its masters, such as Hossein Gol Golab, Mahmoud Hessabi (p. h. d) and Mr. Rezazadeh shafagh, this new society could suggest 400 new words, until 1940. several are indicated in textbooks of high school and university (Iran's academy, new words, 1940: 89). The thought of establishing or formal organization, being named academy and its main aim was using Persian words, against Arabic compounds, was executed in 19th May of 1935 and its establishment order was issued. In 1934, Education ministry, established several societies from related experts and specialist, for making equivalence in Persian words and medicine academy was considered as one of its parts, compiled a stature. In this stature the duty of academy was not only inventing words. (Foroughi, 1936: 6)

Among activities of first academy include: approving 2000 words, publishing letter of academy, by presenting Habib Yaghmaei, as its editor-in-chief and establishing literary society of academy, being directed by Bahar prince of poet and making specialized commissions of linguistic, archaeology, grammar, theater, music and song (Mansoori, 1993: 122). By stopping the activity of first academy, the concerns about Persian language increased, again. In 1948, vahid Dastgerdi requested to paying more attention, into Persian language, by publishing essay of "Understand Persian language (ibid, 4-45). Next year, he warned about existing foreign words, in Persian language, by writing essay of "influence of foreign languages in Farsi (Foroughi, 1948: 48). It was resulted in re-beginning the work of academy-Iran's language academy- in 1970. Farsi literary and language academy (Third academy) was established in 1990 and has formally began its activity, in 1992. following groups have been approved, in This academy: terminology group, grammar and orthography group, Iranian dialects group, Iranian ancient languages group, publishing texts group, Farsi literary diploma's groups idioms lexicon group and manuscript one.

In third academy, terminology methods is as followed: Initially in accordance with emerging several thousands foreign words in different parts of Persian language during recent 50 years, terminology group has divided these words into general and specialized ones. It gives priority to general words-it means those words entering into vulgar language and used by journalists. This group was responsible to consider these words and giving Persian equivalents. Also, considering and suggesting equivalent words for specialized ones are devolved into experts of different fields. At present, there are 46 terminology groups, acting in base, life, human science, art, engineering science and translation (ibid, 7-9). As such, third academy give Persian equivalent for 264 borrowing European words, till now. For examples this academy presents equivalent for helicopters hood, heater, lens, code and etc... (ibid, 11). Farsi language and literary academy, being unfamiliar with foreign words, in accordance with keeping and maintaining Farsi language law, considers terminology methods, as followed.

- A. Selection: selecting a word or phrase, from available ones in language, when, there is a suitable equivalent for considered word.
- B. new-selection: Selecting a word, being available in language and giving new concept into it, so that it shall be related into initial concept.
- C. Making idiom; it is performed, by 3 following ways.
 - Morphology: making a new derivative, compound or derivative-compound word.
 - Making syntax group: it is performed by using at least two words. These words are connected to each other, by vowel point of (!) or one of the prepositions
 - Making abbreviation; it is performed, by one of the ways of acronyms, composing or letter by letter abbreviation
- D. Borrowing: taking a foreign word in destination language, according to its meaning in origin language in origin language-(Qantabadi, 2007:059).

Method:-

The aim of this writing is investigating and considering morphological words, being approved by academy, from one thousand words of physics, from letters A to Z. This writing-thousand words lexicon in case of physical terms "consist of 1147 words. They are investigated, on the basis of questions and hypothesis. In this study, words are arranged, according to library and descriptive-analytical way and-structuralism school. It is performed by using books and essays in order to investigating morphological and conceptual structure and considered as a fundamental pattern.

By using English and Persian lexicon and derivatives of live Languages and studying morphology, and analyzing words and studying them from structural point of view, we obtained considered data. Next, data has been displayed in statistical way, in defined tables, by word software. In fifth chapter, these statistics are displayed in statistical tables, by Excel software, graphs-being obtained from considering morphologies and their frequency (from lower and higher percent views).

Analyzing research data:-

This article data were extracted from first half beginning words of physics Thousand Words (1), from (A to Z), in which we will describe some of them in segregation. The number of words in this research is about 1147. In all cases, these words were evaluated from composition view and they are provided with their Latin equivalents, which, for example, 10 samples are shown in below table:

Table 1:- Some of the research words morphology analysis.

Row	Word of the Academy	Morphology Analysis	Type of the word	Latin equivalent
1	آب سبک	آب (free) + سبک (free)	Compound	Light water
2	آب سنگین	آب (free) + سنگ (free) + این (Suffix)	Compound - Derivative	Heavy water
3	آتشدان	آتش (free) + دان (suffix)	Derivative	Altar
4	آتش گوی	آتش (free) + گوی (present root)	Compound	Bolide
5	آخر النهر	آخر (free) + ال (Prefix) + نهر (free)	Compound - Derivative	Achernar
6	آذر گوی	آذر (free) + گوی (present root)	Compound	Fireball
7	آرایه آکوستیکی	آرای (free) + ای (Suffix) + آکوستیک (Western free)	Compound - Derivative	Acoustic array
8	استانه دردناکی	استان (free) + ای (Suffix) + درد (free) + ای (Suffix) + ناک (Suffix)	Compound - Derivative	Threshold of pain
9	استانه شنوایی	استان (free) + ای (Suffix) + شنو (present)	Compound - Derivative	Threshold of hearing
10	استیکمات ساز	استیکمات (western root) + ساز (present)	Compound	Astigmatizer

One- word variety in case of Morphology:-

In this study, we examined 1147 words, from this number, 122 were simple, and derivatives were 109, and 215 were compound, and 678 were compound – I was derivative word, and one was derived inflectional, and 8 were inflectional compound word, and 1 was compound verbs, and two were compound infinitive word, and 11 were derived inflectional compound words. In this section, we noted one instance of each type

Simple word like a pendulum, derived word as: heating, compound word as: magnets, and compound - derivatives as: radioactive songs, and derived inflectional as: Canes Venatici and compound - declinable word as diffraction rings and word compound- derived inflectional as: Bailey rosary beads.

Two: affix:-**Prefix:-**

In the Academy word-building, from the 18 Persian prefix respectively, (clear, blue, AL, open, over, Bi, Pod, Para, Pera, Tera, you, in, non, Fara, down, NA, Wa, too) were used in which for example, it refers to 5 of them in table 2.

Table 2 prefixes

Row	Prefix	For example
1	Cloud	Cloud aerodynamic noise - supersymmetry - superconducting - Cloud conductivity - superconductivity - Cloud Cooling - superfluid - Cloud Sharag - Heating Cloud - Cloud elusive - the Higgs heavy cloud - cloud diffuser audio
2	Blue	Aberration - optical aberration - the annual aberration - spherical aberration - light aberration aberration of starlight
3	El	آخر النهر - Instruments of meridional - امرأة المسلسله
4	Open	Pronunciation Open - Open Bhnjarsh - reflection - reflection of acoustic - diffuse reflection - reflection ripples gauge - reflective diffuse - reflective acoustic - recombination collisions - returns - reflection reflector - after Tuesday vertical - Refractor
5	Without	The effect of the norm Earth - anomalous skin effect

Extensions:-

In word of of the Academy, is used, the Persian extension 31, respectively, (آ، آر، آل، آن، آنه، آیی، إ، استان، ایش، اون، ای، ایچه، ایته، ایک، این، آت، آک، آنده، بان، سان، دان، گاه، گر، گی، مان، وار، وش، ها، فlection)، یاد، آت (Flection), which (Flection) . refers for example to fifth in the table (32)

Table 3:- Suffixes:-

Row	Suffix	For example
1	ا	Thermal turbulence - superconductor - a high temperature superconductor - superconducting ceramic - Cloud Heating - Electric heat - Akhtar dynamics - steady state vibration - heat - thermal energy - Static electricity - Static electricity - heat distribution - Heat capped - dynamics - width - Bar width of thermal radiation - heat exchanger - heat exchange transient equilibrium - thermal equilibrium - steep attenuation - the flow of steady - steady - thermal reactor - reactor Frangmayy - conductor
2	(Flection) ات	Elementary particles - the secondary particles (inflectional)
3	ار	Transmission vector - antiparallel vectors - intermediate vector bosons - conserved - the main visual ray - exchange structure-function transition - Fine structure constant
4	ال	Long-period comets - periodic comet
5	ان	Analysis of action - action neutron analysis - Khorashan telescope landing - falling object

Three – verb root:-**present root:-**

In word of of the Academy of Persian, 94 roots had been used as follows:

Table 4. present root

Row	Present root	Row	Present root	Row	Present root	Row	Present root
1	امیز	25	پرداز	49	دم	73	گشش
2	اور	26	پرست	50	ده	74	کن
3	اختر	27	پوش	51	ران	75	گذار
4	انبار	28	پوی	52	زبا	76	گذر
5	انبوه	29	پیرا	53	زبای	77	کرا
6	انگیز	30	تاب	54	رس	78	گران
7	ایست	31	تاز	55	رسان	79	کرد
8	افت	32	تراوا	56	رعب	80	گریز
9	بار	33	ترک	57	رو	81	گستر
10	باف	34	تن	58	زا	82	گوی
11	بر	35	جذب	59	زای	83	گیر
12	بر	36	جنب	60	زدا	84	گیران
13	بلور	37	جوش	61	زن	85	لغزش
14	بند	38	جه	62	ساز	86	مال
15	بین	39	جی	63	ساو	87	مان
16	پا	40	چرخ	64	سرما	88	میر
17	پاش	41	چرخان	65	سنگ	89	میران
18	پالای	42	چکال	66	شار	90	نگار
19	پای	43	چین	67	شناس	91	نما
20	پذیر	44	خراش	68	شنو	92	نه
21	پر	45	خوان	69	غلت	93	هنجار
22	پراش	46	خیز	70	کاو	94	یاب
23	پرتاب	47	دار	71	کزن		
24	الای	48	دان	72	کش		

Past tense:-

32 Past tenses in the following manner, the morphology of the Academy have been used:

Table 5:- Past tense

Row	Past tense	Row	Past tense	Row	Past tense	Row	Past tense
1	Embarrassed	9	Broadcast	17	Form	25	heard
2	Came	10	Spread	18	Life	26	Does
3	Stirred	11	Taft	19	Making	27	Took
4	closed	12	Senility	20	Fuel	28	Spread
5	win	13	Feed	21	Was	29	Excursion
6	Return	14	The	22	Fission	30	Stay
7	were	15	Sight	23	Break	31	Mapping
8	Stand	16	Went	24	Recognition	32	Past tense

Four – Infinitive:-

In the word of Academician of the second Infinitive is used in the following order:

Table 6: Infinitive

Row	Infinitive	Example
1	Shine	Shine
2	The	Pregnant off - no loading - unloading

Five – prepositions:-

In word of of the Academy of Persian preposition 3 used is as follows:

Table 7:- preposition:-

Row	preposition	Example
1	To	Bhnjar- frequency Bhnjarsh box - displacement - displacement Isotope - frequency displacement - displacement virtual switch radio frequency
2	Without	Without load - asymmetry - baryon asymmetry - chaos - chaos Schottky - weightlessness - weightless - anomie - no focus Telescope anomaly Diffusion
3	In	Radiation protection

Six: Western word:-

In word of of the Academy, 114 Western words were used in which 20 of them, with examples are shown in the following table:

Table 8:- Western word

row	Western word	Example
1	astigmatism	Astigmatism construction - Stygmaty - astigmatism gauge - Lace Kavnastygmat
2	Aerodynamics	Cloud aerodynamic sound
3	Acoustic	Ray•Akvvstyky - detecting acoustic - acoustic particle detection - Move acoustics - Acoustics - Acoustic day wave - Acoustic - like acoustics - Acoustic echo - tomography acoustic - scattering acoustic - acoustic signal processing - radiation acoustic - acoustic radiator - resonant acoustic - acoustic imaging - acoustic resonance - picture acoustics - acoustic interferometer - approximate acoustic - acoustic suspension - amplifier acoustic - acoustic streaming - acoustic absorption - acoustic coupler - fatigue acoustic - acoustic transmission line - a penetrating acoustic
4	Alpha	Alpha therapy - alpha radiation - alpha radiation - alpha particles
5	Almaltea	Almaltea
6	Alloy	Crystalline amorphous alloy
7	Amp	A round - Ammeter
8	Enthalpy	Enthalpy of activation - enthalpy Acting
9	Antwerp	Entropy - the entropy of activation - entropy Acting
10	Antenna	Microwave Antenna - Antenna navigation
11	Andes	Anodes - anode beam
12	Atom	Interatomic interactions
13	Integral	Exchange Integral - Integral action - an integral path
14	Epsilon	Epsilon Canis
15	static	Electrostatic
16	Stokes	Stokes lines - lines Padastvks
17	Spin	Spin-spin interaction - the interaction of spin-orbit - spin angular momentum
18	Schmitt	Schmidt telescope arches
19	Schmidt - Cassegrain	Schmidt Cassegrain telescope
20	electric	Electric potential difference - electric charge - electric dipole - discharge - Electric Potential

Seven – western tense:-**Western present tense:-**

In word building of the Academy, only 1 Western tense is used as follows:

Table 9:- Western present tense.

Row	Western tense	Example
1	Ion	Ionization energy - radiation treatment - ionizing radiation - fast ionic - conductivity - Event radiation

Western past tense:-

In studies, there was no Western past tense.

Western acronym:-

In morphology of the Academy, only one Western acronym is used.

Table 10:- Western acronym.

Row	Acronyms free Western	Example
1	MMT	MMT telescope, MMT observatory

Eight - Western affixes:-**Western prefix:-**

Western prefix is used only in morphology of the Academy.

Table 11:- Western prefix

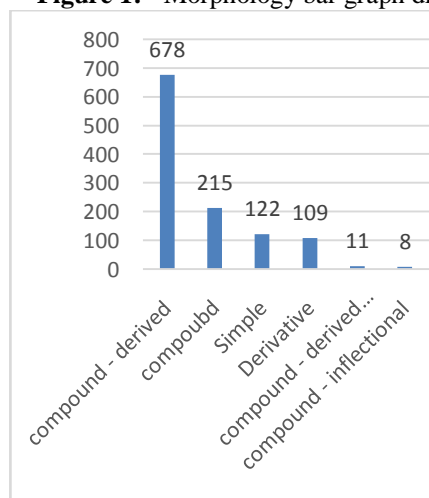
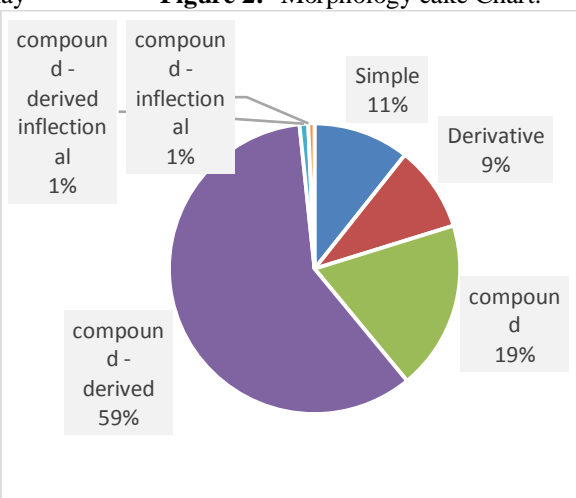
Row	Western prefix	Example
1	Para	Paramagnetic - paramagnetic - load electricity

Western Suffix:-

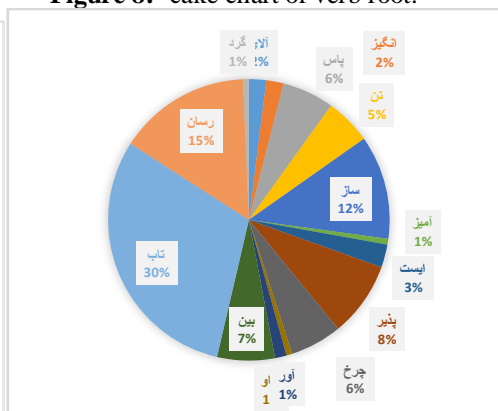
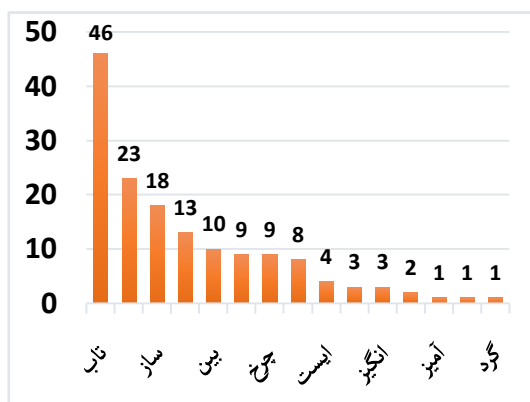
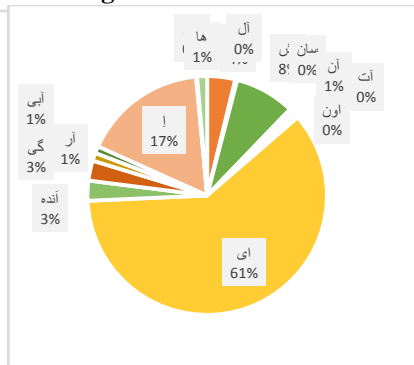
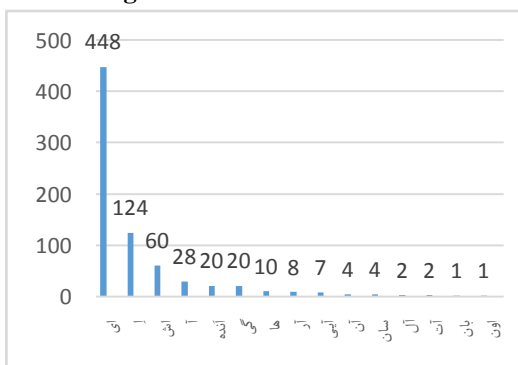
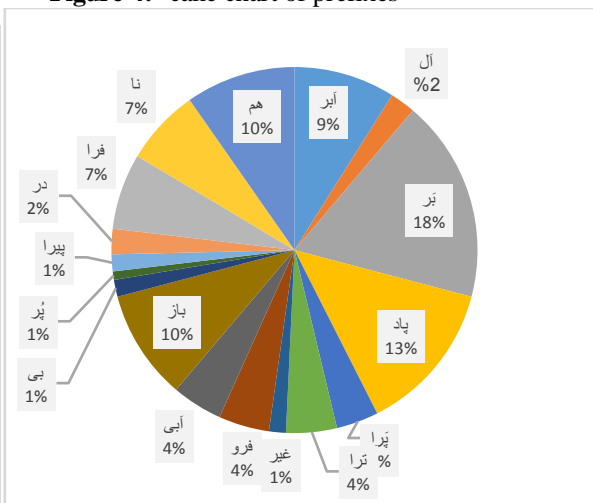
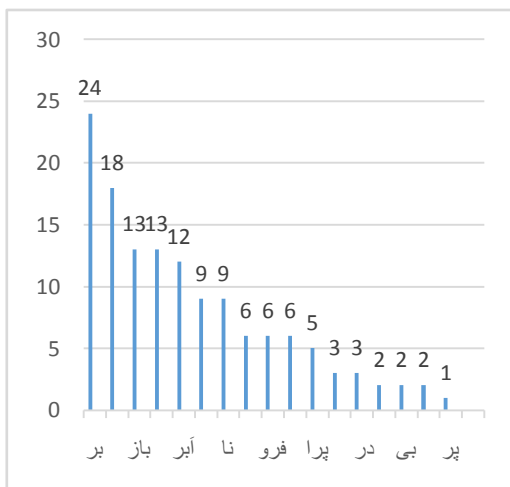
There was no western suffix in the study.

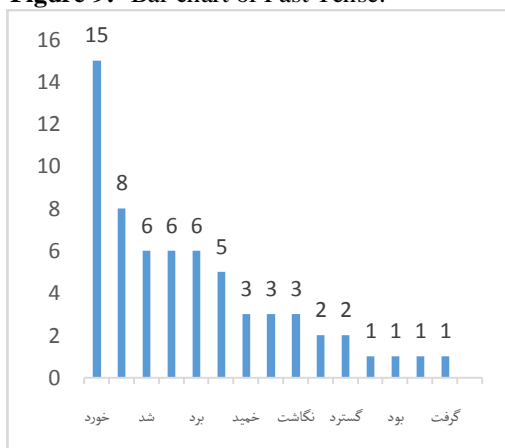
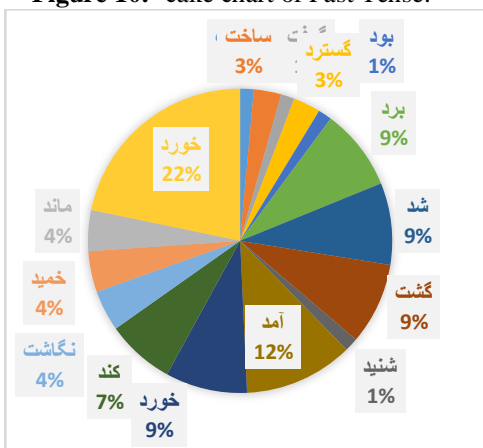
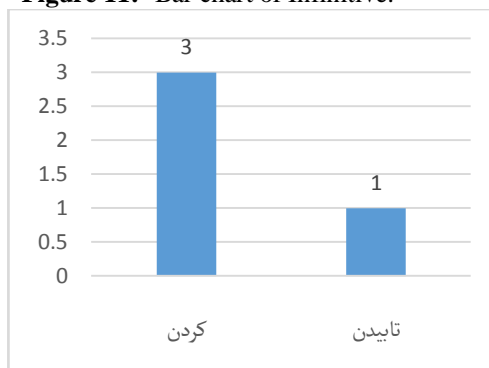
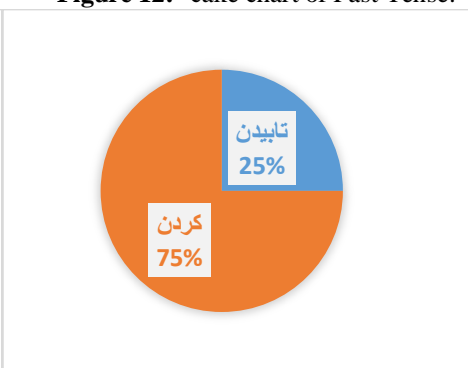
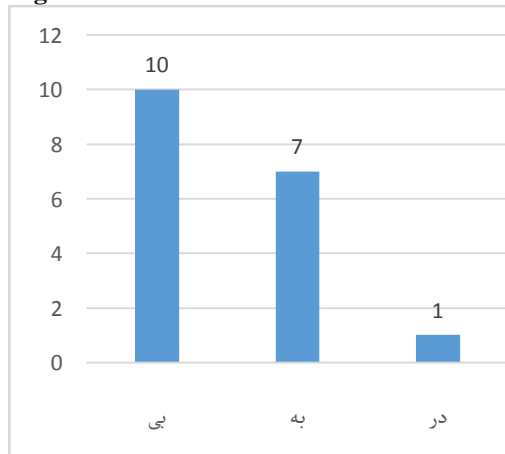
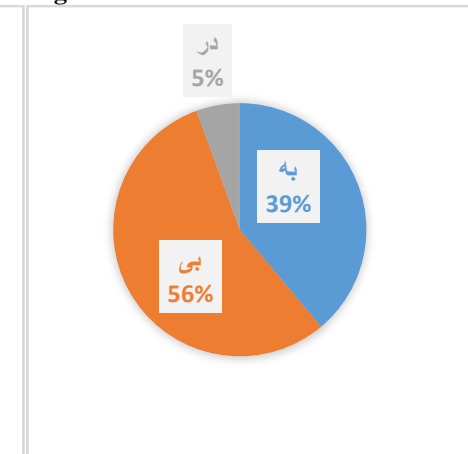
Results:-

In the study, we have seen, to show, based on the occurrence of word Morphology, as well as the coefficient of Western words, in the words of Academy of Persian Language and Literature, as well as to evaluate and compare the results obtained from them, in this review statistical been used two different methods, rod and cake, to check the frequency of occurrence of each variable on the basis of their application, as well as cake In graph, the rate of use of each variable is displayed. In statistical analysis, if the variable frequency is above 15, according to the discretion of the supervisor, only 15 of them are shown in the diagram.

Types of Morphology:-**Figure 1:-** Morphology bar graph display**Figure 2:-** Morphology cake Chart.

Prefix:-

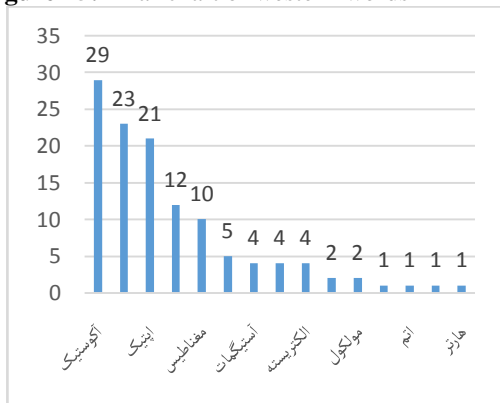
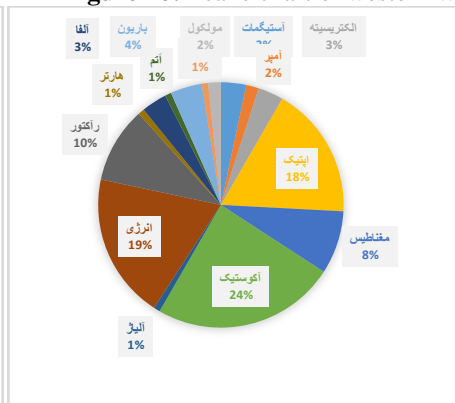


Past Tense:-**Figure 9:-** Bar chart of Past Tense.**Figure 10:-** cake chart of Past Tense.**Four – Infinitive:-****Figure 11:-** Bar chart of Infinitive.**Figure 12:-** cake chart of Past Tense.**Five – preposition****Figure 13:-** Bar chart of Infinitive.**Figure 14:-** cake chart of Past Tense.**Six - Western citizen:-****Western prefix:-**

In this Research only a prefix "para" there.

Western Suffix:-

Western Suffix were not observed in morphology of the Academy.

Seven - Western word**Figure 15:-** Bar chart of western words**Figure 16:-** cake chart of western words.**Eight - Western Acronyms:-****Western present root:-**

Western present tense in studies had appeared in only one case.

Western past tense:-

In studies, there was no Western past tense.

The results indicate that with observations made in the field of physics, compound - derived is used most often, and of making derivative is underused. Thus the first hypothesis is rejected. By observing the data given in the field of physics, say, the prefix "BAR" by 24 times, has the highest and "POR" with one-time use, had the lowest usage. Suffix "EI", with 448 applications, had the highest performance, and "Watch" at one time had the lowest usage. Thus the second hypothesis is confirmed. In study the word it became clear that present tense of "TAB" by 46 times, is the most-common, and "Amiz" and "Gard" and "Saw", each with 1 times usage, had the lowest usage. Past tense of "Khord", with 15 repetitions had the most applications, and "shenid" and "Ashoft" and "Bood", each with 1 times, had the lowest usage. The third hypothesis is confirmed. In response to the fourth question, there are only two Infinitive in which, the Infinitive of "do" with 3 times, was the most widely used, and "Tabidan" with one time application, had the lowest attendance. The fourth hypothesis is confirmed. By studying prepositions, only the third item can be satisfied, the preposition "Bi", with 10 repetitions, and "Beh" with seven iteration, was the most used and "Dar" with one repetition had the minimum application. The fifth hypothesis is confirmed.

In the words of research, only a Western prefix of "para" with 3 repetition were seen, and the studies have not seen any western extension. A part of the sixth hypothesis is approved. In answering the seventh questions, with about 114 Western word, which had to study the word, the Western word of "acoustic" with 29 times, the most used, and Western words, "atom", "Dioper" and "Harter", each with a the repetition, had the lowest usage, resulting in a seventh hypothesis is confirmed. In studies, the only son of the Western term "ion", with 5 times, is the most used, and any past tense west was not seen in studies. Eighth hypothesis is partially confirmed.

As well as the language of science, is a kind of language, its main role as a liaison between scientists, and scientific expression in speech and writing, and also interact with other species and the use of language, terminology and processes of their morphology, has a special vocabulary and the terminology is in a unique manner. When we get to speak the language of science, in fact we are dealing with a language into another language, and this is what, in the so-called linguists functional types (register) is read. The Academy hopes someday Farsi, the language of science, and this is not an impossible dream. Academy against some foreign words, while accepting the word alien, one against the Persian also passed on its side, in the hope that it gradually replaced the term alien is equivalent to Persian. Gholam Ali Haddad Adel doctor about possible threats to the Persian adds incalculable entry of foreign words and ambiguous words are meaningless and production darkens the language. He stressed the importance of terminology that: terminology is essential for language and terminology should be disciplined. This article has tried .to share a summary of the activities of specialized terminology groups have in the physical real

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