

CLASSIFICATION OF PREFIXES IN ENGLISH LANGUAGE

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Abstract. There are different ways to classify English prefixes, and one of them is, of course, a division between class-changing or class-maintaining prefixes. The terms class-changing and class-maintaining refer only to general lexical classes of words (e.g. adjectives, nouns, verbs, etc.), and not to their subclasses. Other grounds for classification of prefixes relate to their semantic classes, origin, and bases to which they are attached.

Key words: word-formation; derivation; prefixes; word class change; English language

Аннотация. Существуют разные способы классификации английских префиксов, и один из них — это, конечно же, деление на префиксы, изменяющие или поддерживающие класс. Термины «изменение класса» и «поддержание класса» относятся только к общим лексическим классам слов (например, прилагательным, существительным, глаголам и т. д.), а не к их подклассам. Другие основания для классификации приставок относятся к их семантическим классам, происхождению и основаниям, к которым они присоединяются.

Ключевые слова: словообразование; вывод; префиксы; изменение класса слов; английский язык

Annotatsiya. Ingliz tilidagi prefikslarni tasniflashning turli usullari mavjud va ulardan biri, albatta, sinfni o'zgartiruvchi yoki sinfni saqlaydigan prefikslar o'rtasidagi bo'linishdir. Sinfni o'zgartirish va sinfni saqlash atamallari faqat so'zlarning umumiy leksik turkumlariga (masalan, sifatlar, otlar, fe'llar va boshqalar) tegishli bo'lib, ularning kichik sinflariga emas. Prefikslarni tasniflashning boshqa asoslari ularning semantik sinflari, kelib chiqishi va ular birlashtirilgan asoslari bilan bog'liq.

Kalit so'zlar: so'z yasalishi; kelib chiqish; prefikslar; so'z sinfini o'zgartirish; Ingliz tili

Introduction. Affixation is a very productive word-formation process in the English language, and it generally involves the use of two types of affixes – prefixes and suffixes. In English, suffixes usually change the class of a base to which they are attached, but prefixes generally do not do so. Now, more often than not, any claim made when discussing linguistic issues involves the use of a hedge – hence the two tokens of the word generally and one token of the word usually used in the four claims made in the preceding paragraph. The first token of the word generally refers to the fact that there is a borderline case of infixation in English. Although there are no morphemes that qualify as infixes in English, expletives like *bloody* can be inserted into certain words, e.g. *Singa-bloodypore*, *kanga-bloody-*

roo (Plag 2003: 101). The word usually used in the third claim points to the case of suffixes like -dom, -hood or -ship (e.g. king-dom, brother-hood, Edin Dupanović Class-Changing Prefixes in the English Language DHS 2 (8) (2019), 73-88 74 friend-ship) which do not change the class of the base (N + suffix = N), but do change the subclass of the nouns involved in the process from concrete countable to abstract uncountable (Bauer 1983: 220-1). And the second token of the word generally covers for the fact that there is a small set of class-changing prefixes in English, and the goal of this paper is to list those prefixes and give a concise overview of their properties. The scope of the paper does not allow an exhaustive treatment of the topic.

Literature review and methods. First of all, it is necessary to define prefixes in the English language, and to give an overview of their properties. The first step in defining a prefix is actually defining its hypernym affix. All the authors consulted agree that an affix is a bound morpheme, i.e. it cannot stand on its own and has to be attached to another element Adams (2001: 2); Carstairs-McCarthy (2002: 20); Katamba and Stonham 2006: 44; Plag (2003: 10). Since his definition aims to cover other languages and not just English, Bauer (1983: 17-18) defines affixes as “bound morphs which do NOT realize unanalyzable lexemes.” By realizations of unanalyzable lexemes, he implies bound forms like am- in the Latin verb form amo “I love”. In other words, affixes do not constitute the lexical core of a word. Moreover, Matthews (1991: 131) insists that the form of an affix is constant although the element to which it is attached varies. However, this claim should come with a hedge since Carstairs-McCarthy (2002: 52) points out that the prefix in- has different allomorphs indicated by “variant spellings of *il-*, *ir-* and *im-*, as in intangible, illegal, irresponsible and impossible.” These variants were borrowed from Latin as such (Adams 2001:46), but they are variants nevertheless. Katamba discussed problem concerning the notion of affix, namely the distinction between an affix and a bound root. According to his book Morphology, affixes are also obligatorily bound, it is not particularly obvious what the difference between a bound root and an affix may be. He loosely defined a root as the central meaningful element of the word, to which affixes can attach. But when can we call an element central, when non-central? This problem is prominent with a whole class of words which are formed on the basis of morphemes that are called neoclassical elements. These elements are lexemes that are originally borrowed from Latin or Greek, but their combinations are of modern origin (hence the term NEO classical). Examples of neoclassical word-formation are given in

a. <i>biochemistry</i>	b. <i>photograph</i>	c. <i>geology</i>
<i>biorhythm</i>	<i>photoionize</i>	<i>biology</i>
<i>biowarfare</i>	<i>photoanalysis</i>	<i>neurology</i>
<i>biography</i>	<i>photovoltaic</i>	<i>philology</i>

It is not obvious whether the italicized elements should be regarded as affixes or as bound roots. If the data in (a) are taken as evidence for the prefix status of bio-, and the data in (c) are taken as evidence for the suffix status of -logy, we are

faced with the problem that words such as biology would consist of a prefix and a suffix. Speakers of English that are familiar with such words or even know some Greek would readily say that bio- has the meaning 'life', and this insight would lead us to think that the words in (5a) behave exactly like compounds on the basis of native words. For instance, a blackboard is a kind of board, a kitchen sink is a kind of sink, a university campus is a kind of campus, etc. And biochemistry is a kind of chemistry, biorhythm is a kind of rhythm, etc. The same argument holds for the element photo- 'light', which behaves like a first element in a compound in the forms

In (5b), and for the forms in (5c) (geo- 'earth', neuro- 'nerve', philo- 'love', -logy 'science of'). The only difference between the neoclassical forms and native compounds is that the non-native elements are obligatorily bound. This is also the reason why the neoclassical elements are often called combining forms. A prefix is set apart from other affixes by the fact that it precedes the element to which it is attached – the element being a root, a base, or a stem.¹ Other affixes are: infixes, suffixes, circumfixes and superfixes (Trask 1993: 10). An infix is inserted into a discontinued root, a suffix follows the base, a circumfix or ambifix surrounds the base being a co-occurrence of a prefix and a suffix (a discontinued morph), and a superfix or suprafix is an affix whose morph consists of a distinction in stress or tone. Mel'čuk (2006: 299-300) gives the most detailed classification of affixation processes which he divides into four classes. He names the first class confixation in which "affixes do not interrupt roots and are not interrupted themselves," and the class consists of prefixation, suffixation and interfixation. An interfix links two roots as in Bosnian compounds *žut-o-zelen* "yellow-green" and *grad-o-načelnik* "mayor" (lit. "town-chief"). The second and the third classes are infixation and circumfixation respectively. In the former a root is interrupted by an affix which is not interrupted; while in the latter it is the other way round. The fourth class is transfixation where both a root and an affix are interrupted by each other's material, e. g. in the Arabic word q- a-t-a-l(+a) "he has killed" consonants (CCC) constitute the root and vowels (VV) a transfix. Mel'čuk (2006: 301) treats suprafixation as a process separate from affixation due to its non-concatenative nature. However, for the English morphology only prefixes and suffixes are relevant – generally.

The classification of prefixes relates to their semantic classes, origin, and bases to which they are attached. In the two following paragraphs semantic classes and origin of native prefixes are addressed. Bases to which class-changing prefixes are attached are discussed along with individual affixes.

In terms of their semantic classification, Plag (2003: 98-99) divides prefixes into four classes, or four plus one, where the extra class is the miscellanea meant for those prefixes that could not be classified otherwise. These are: (a) quantitative prefixes like uni-, bi-, di-, multi-, poly-, semi-, hyper-, etc. (e.g. unification, bifurcation, ditransitive, multilateral, polysyllabic, semi-conscious, hyperactive); (b) locative prefixes like *circum-*, *counter-*, *endo-*, *inter-*, *retro-*, *trans-*, etc. (e.g.

circumscribe, counterbalance, endocentric, intergalactic, retroflex, transmigrate); (c) temporal prefixes like *ante-*, *pre-*, *fore-*, *post-*, *neo-*, etc. (e.g. *antedate*, *preconcert*, *foresee*, *postmodify*, *neoclassical*); (d) negative prefixes like *a-*, *de-*, *dis-*, *in-*, *non-*, *un-*, etc. (e.g. *asymmetrical*, *dethrone*, *disagree*, *inactive*, *non-commercial*, *unwrap*); and others like *mal-*, *mis-*, *pseudo-*, *vice-*, etc. (e.g. *malfunction*, *mistrail*, *pseudo-archaic*, *viceregal*). Adams (2001: 41-42) also recognizes four semantic classes of prefixes. Three of these Edin Dupanović Class-Changing Prefixes in the English Language DHS 2 (8) (2019: 73-88) are the same as in Plag (2003: 98-99): quantitative, locative and negative; but instead of the temporal class, she introduces a reversative class. However, there is no clear-cut division between these classes since some prefixes belong to multiple classes.

Quirk et al. (1985: 1540-1546), in accordance with their attention to detail, classify prefixes into nine categories: negative prefixes, reversative or privative prefixes, pejorative prefixes, locative prefixes, prefixes of degree and size, prefixes of orientation and attitude, prefixes of time and order, number prefixes, and miscellaneous neo-classical prefixes. The last two are separated as neo-classical items.

Marchand (1969: 129) lists only six prefixes as being of native origin: *a-*, *be-*,

fore-, *mid-*, *mis-*, and *un-*; while all others are mostly of Latin and Greek origin related

to particles or quantifiers from those languages (Adams 2001: 41). Since prefixes *a-*,

be-, and *un-* are class-changing prefixes, they will be dealt with in subsequent sections.

Prefix *fore-* originates from a locative particle meaning “before”. In the Old

English period (henceforth OE) it was attached to verbs as an inseparable temporal

prefix and to nouns adjunctively (Marchand 1969: 166). Prefix *mid-* was an adjective

which was “the first-word of compounds” in OE, and prefix *mis-* has dual origin –

it was a prefix in OE that will later merge with the French prefix *mes-* of the same

sense (Marchand 1969: 176).

Results. From the viewpoint of meaning, the different prefixes in our italicized words have different kinds of effects on the words to which they are prefixed. Thus *in-*(in incomplete) has the effect of negating the meaning of the word: we shall call such prefixes 'negative prefixes'. Another negative prefix of English is *dis-*. However, the *dis* that occurs in *disconnect* does not mean 'not to connect'. Rather '*disconnect*' means 'to break' or 'discontinue the connection'. Certain prefixes contribute the meaning 'bad', (or 'badly'), for example, the prefix

*mal-*in *maltreat*. Some prefixes convey the idea of number (e.g. *bi-*in *bilingual* which means 'knowing two language'), and so on. We provide a detailed account of English prefixes in the following.

Prefixes:

Negative Prefixes

Negative prefixes contribute the meanings 'not', 'opposite of', 'lacking in', etc. They may be attached to adjectives, nouns, verbs, or adverbs. The most common negative prefixes are *un-*, *in-*, *dis-*, *a-*, and *non-*. The forms and meanings of negative prefixes are listed below:

Un-: Occurs typically with adjectives and with verb forms which are used as adjectives (i.e. present and past participles), e.g., *unkind*, *unending*, *unexpected*. It does not even occur with all adjectives. There are two kinds of adjectives with which it doesn't occur: first, adjectives like *good*, *strong*, *tall*, etc. which have other forms to express opposite meanings, and, second, adjectives which have 'bad' or 'pejorative' meanings, e.g., *naughty*, *wicked*, *cruel*, etc.

in: This prefix morpheme has four allomorphs

il: Occurs before stems beginning with I, e.g. *illegal*, *illegible*

ir: Occurs before stems beginning with r, e.g. *irregular*, *irreligious*

im: Occurs before stems beginning with p, b, m, e.g., *impossible*, *imbalance*, *immovable*

in: Occurs with all other stems.

The negative prefix occurs mostly with adjectives but also occurs with nouns, e.g., *incomplete*, *inevitable*, (*adjectives*), *inability*, *inattention*, *injustice* (nouns). It is a less common prefix than *un-* and the words with which it occurs seem to be fixed: no new words take this suffix. The suffix used with new words is *un-*.

dis: As a negative prefix. It occurs with adjectives, verbs as well as nouns, e.g., *dissimilar*, *disbelieve* *disbelief*, *disunity*.

a: The meaning of this prefix contrasts with that of *un-* or *in-*. Whereas the latter mean 'not' or 'opposite of', *a-* means 'lacking in the feature of quality' described by the word to which it is prefixed

non-: Has the meaning 'not'. Occurs with adjectives and nouns, e.g., *non-violent*, *non-existent*, *non-cooperation*, and *non-smoker*.

Reversative and Privative Prefixes. The following prefixes contribute the meaning 'reverse the action denoted by the stem' (Reversative) or 'deprive someone or something of the object denoted by the stem' (Privative).

un: Combines with verbs and produces the meaning 'reverse the action', e.g. *undo*, *untie*, *unpack*, *unlock*, *unzip*. Also combines with some nouns to form verbs and produces the meaning 'deprive of', 'release from', etc., e.g., *unseat*, *unmask*, *unearth*, *unhorse*.

de: Combines with verbs and with nouns derived from verbs and produces the meaning 'reverse the action', e.g., *decode*, *decontrol*, *denationalize*. Combines with verbs, and with nouns derived from verbs, to produce the meaning 'deprive of', e.g., *dethrone*, *deforest*, *depopulation*.

dis: Combines with verbs with the meaning 'reversing the action', e.g., *disconnect, disinfect, disown, etc.* Occurs with the sense 'remove, deprive of, rid of what is denoted by the noun stem. The resulting word is a verb, e.g., *disarm, disfigure, etc.*

Pejorative prefixes. Pejorative prefixes are those prefixes which add to the meaning of the stem the element 'bad', 'badly', 'wrong', 'wrongly', 'false', 'imitation', etc. 'The main pejorative prefixes of English are:

mal: is combined mostly with verbs (e.g., *malltreat, maladjust*), nouns (*maladministration, malnutrition*), adjectives (*malodorous, and participles (malnourished, maladjusted).*

mis: is used mainly and frequently with verbs, it conveys the meaning 'badly, wrongly, improperly, etc.' as in *mislead, mishandle, etc.* Also occurs with participles (*misguided*) and nouns (*misfortune, misrule*).

pseudo: is a very productive prefix and can be attached quite freely to nouns and adjectives to form other nouns and adjectives. Adds the element of meaning 'false', 'not what it is claimed to be', e.g., *pseudo-intellectual, pseudo-scientific.*

Number of Prefixes. The following prefixes, attached to nouns and adjectives, express various numbers which are somehow relevant to the meanings of the resulting words.

bi: Expresses the number 'two'. *Bi-* occurs in words like *bicycle, bilingual, bigamy, etc.*, while *di-* occurs mostly in scientific words, e.g., *dioxide, diode.*

mono- and **uni:** Express the number 'one', as in *monolingual, monoplane, unidirectional, unilateral, etc.*

semi- and **demi:** Express the number 'half, as in *semi-circle, demi-god, etc.*

tri: Expresses the number 'three' as in *tricycle, tripod.*

poly- and **multi:** Express the number 'many' as in *polyglot* (speaking or understanding many languages), *polygamy* (the practice of having more than one wife'), *polyandry* (the practice of having more than one husband), *polytechnic* (a college where many technical subjects are taught).

Prefixes of Degree, Rank, Size, etc. The following prefixes are attached to nouns, verbs or adjectives and contribute meanings which have to do with degree, rank, size, etc. in one way or the other:

arch: Has the meaning 'of the highest rank' as in *archbishop* or *archangel*. With most other nouns, it occurs with the meaning 'having the qualities associated with the type denoted by the noun to the highest degree', e.g., *archenemy, arch-villain, etc.* In this sense, it generally occurs with nouns of pejorative meaning.

co: Occurs with personal nouns or with verbs. The resulting nouns and verbs generally refer to people sharing things or doing things together, e.g., *coauthor, cooperate.*

extra: Used with adjectives to form other adjectives with the meaning 'to an exceptional degree'. or 'having more of a particular quality than usual' e.g., *extra-large, extra-long.* With some other adjectives, it means 'outside' or 'beyond' as in *extra-constitutional, extra-marital.*

micro: Occurs with nouns which refer to 'very small' versions of certain things, e.g., *microcomputer*, *microorganism*.

mini: Is used to form nouns denoting a smaller or less important version of something else. e.g., *mini-computer*, *minibus*.

out: Is attached to some verbs to form other verbs which mean 'do something better than another person, thing, etc.', e.g., *outrun*, *outnumber*, *outgrow*.

over: Is used with adjectives or verbs to indicate that a quality exists or an action is done to too great an extent; shows disapproval, e.g., *overripe*, *overeat*.

sub: Attached to adjectives to produce the meaning 'inferior' e.g., *subhuman*, *substandard*.

super: Combines with nouns and adjectives. The resulting words refer to things that are larger or more powerful than other things of the same kind, e.g., *superpower*, *supermarket*, *superhuman*, *supersensitive*.

under: Added to nouns and produces the meaning 'lower in rank', e.g., *undersecretary*; attached to verbs and participles the meaning it produces is that the action has been done or the quality exists to an insufficient extent, e.g., *underestimate*, *undernourished* (= 'not sufficiently nourished').

Prefixes of Time and Order

Prefixes of time and order are attached to nouns, verbs and adjectives and qualify the meanings of these words by putting them in some time or order context.

ex: Adds the meaning 'former' as in *ex-president*. Is mostly used with nouns only.

post: Forms words (nouns or adjectives) which describe something as taking place after a particular date or event, e.g., *post-war*, *post-independence*, *postcolonial*.

pre: Forms words (nouns or adjectives) which describe something as taking place before a particular date or event, e.g., *pre-war*, *pre-independence*, *precolonial*.

re: Is added to verbs-and nouns to form other verbs and nouns which refer to the repetition of an action (e.g., *rebuild*, *re-use*) or to the opposite of an action that has already taken place (e.g., *reappear*, *regain*).

Prefixes Showing Location. Historically, like many other prefixes, prefixes which show location are also derived from prepositions, and their meanings are similar to those of prepositions showing location. For example, the prefix *inter-* means 'between', hence we can either speak of '*international relations*' or of '*relations between nations*'. **fore:** Like the preposition before when referring to place, fore-means 'front' or 'front part of as in *forearm*, *foreground*, *forename*. Occurs with nouns.

inter: Occurs with adjectives, verbs and nouns with the meaning 'between', e.g., *international*, *intermarry*, *inter-university*.

sub: Occurs with adjectives, verbs, and nouns with the meaning 'below' or 'under', as in *subnormal*, *submerge*, *subsoil*.

super: combines with a few nouns and contributes the meaning 'above' as in *superstructure*, *superscript* (= 'that which is written above something else').

trans: Combines with adjectives or verbs and contributes the meaning 'across', 'beyond', or 'over', e.g., *transcribe* (= 'to write across', i.e., to record in a different set of symbols).

Prefixes Showing Attitude and Orientation. A few prefixes are such that attached to nouns, adjectives and verbs, they produce words which reflect attitudes, or position with respect to something. The meanings of these prefixes can also be expressed by prepositions.

Anti: Is added to nouns and adjectives and contributes the meaning 'against' as in *antislavery* (=against slavery).

Counter: Is added to nouns, verbs, adjectives and adverbs and produces the meaning 'against', 'in opposition to' 'in the opposite direction', etc. as in *counterattack* *counteract*, *counter-clockwise*. While *anti-* suggests only an attitude of opposition, *counter-* suggests action in response to a previous action. A *counterattack* is an attack in response to an attack.

pro: Is added to adjectives and nouns and contributes the meaning 'for', 'in favor of, e.g., *pro-Indian*, *pro-student*.

Prefixes which Change the Part of Speech of the Stem. We noted above that prefixes normally do not affect the stems grammatically, i.e., they do not change the part of speech of the stem. In a few cases, however, prefixes do affect the part of speech of the stem. Such prefixes do not carry any specific meanings: their function is mainly a grammatical one. The number of such prefixes is quite small and so is the number of words to which they are added. Such prefixes are called **conversion prefixes**. Here are a few of them:

a: This prefix forms adjectives from verbs, e.g., *ablaze* (from blaze), *asleep* (from sleep), *astir* (from stir), *aglow* (from glow). The adjectives thus formed can only be used in predicative (=after the verb) position. Thus we can say The house was *ablaze* but not *the ablaze house.

be: Forms transitive verbs from adjectives, verbs and nouns, e.g., *becalm*, *bemoan*, *befriend*. In another use, it is attached to past participles turning them into adjectives e.g., *bespectacled*, *bejeweled*, *bewigged*.

en- or em: Form transitive verbs mainly from nouns, e.g., *endanger* (=put into danger), *enslave* (=make into a slave), *empower* (=provide with power), *embitter* (=make bitter), *imperil* (=put into peril).

Combinations of prefixes. We have seen that the prefixes discussed can be iterative, and they can also be combined, provided that they can attach to the same stem. (often the semantics will prevent this). But among the possibilities are the following:

Pro-anti-government = 'in favor of (being) anti-government'

Anti-pro-government = 'against counter-espionage'

Anti-counter-espionage = 'against counter-espionage'

Pseudo-anti-intellectual = 'someone who pretends to be anti-intellectual'

Anti-pseudo-intellectual = ‘against (being or someone who is) pseudo-intellectual’

Ex-vice-president = ‘someone who no longer vice president’

Ex-pseudo-anti-intellectual = ‘someone who is no longer a pseudo anti-intellectual.’

Conclusion. In this work of English prefixes, we have seen that many English prefixes have semantic properties like those of full lexemes. They have a range of related sense and if we look at the semantic, we observe that they have something like ‘selection restrictions’, that is, their felicitous use requires looking at the semantic properties of the base, not just at the syntactic category. Moreover, we have seen that these affixes may be used iteratively, and they may be combined. We have argued many limitations on recursion and combination of word-formation processes should be explained in terms of pragmatic and processing factors, as well as of the semantics of the affix and base. Thus this sample of affixes would tend to support the position of Baker and Lieber, that affixes are similar to lexemes.

However, we have purposely chosen prefixes with this kind of semantic coherence, it is not fair to generalize to all affixes.

Finally, we can come across with some problems those are waiting for their solution while searching for data and working on this issue, as Katamba argued, that it is not obvious elements like *bio-*, *photo-* should be regarded as prefix or as bound roots.

References

1. Aronoff, Mark. *Word Formation in Generative Grammar*, Cambridge MIT Press. 1976.
2. Baayen, herald and Rochelle Lieber. 1991. *Productivity and English Derivation: A Corpus Based Study*.
3. Bauer, Laurie. 1983, *English Word-formation*, Cambridge: Cambridge University Press.
4. Budiman, A. *The Affixation Used in Avenged Sevenfold’s Lyrics*. Islamic University Sunan Kalijaga. 2016.
5. Ingo Plag. *Word-formation in English*. Cambridge: Cambridge University Press. Series ‘*Cambridge Textbooks in Linguistics*’, 2002.
6. Katamba, Francis. *Morphology*. New York: St. Martin’s Press, Inc., 1993.
7. Lehrer, Adrienne. 1993. “The Semantics of Morphology: The Case of –meta and Other Recursive Prefixes.” Paper read at the Third International Cognitive Linguistics Conference, Leuven Belgium, July, 1993.
8. Marchand, Hans. *The Categories and Types of Present-Day English Word-Formation*. University of Alabama Press. 1966.
9. Yusupova, N. (2021). PECULIARITIES OF LEARNING ACTIVITIES OF STUDENTS WITH INTELLECTUAL DISABILITIES. CURRENT RESEARCH JOURNAL OF PEDAGOGICS, 2(11), 138-142.

10. Berdiyorova, G. (2022, September). " FINE ART" IS A CREATIVE PRODUCT FOR CHILDREN IN NEED OF SPECIAL HELP. In International Scientific and Current Research Conferences (pp. 124-127).
11. Mirakhmedova, L. A. (2021). THE ROLE AND ROLE OF LOGORITHMIC EXERCISES IN ELIMINATING SPEECH DEFICIENCIES. CURRENT RESEARCH JOURNAL OF PEDAGOGICS, 2(11), 122-125.
12. Rustamovna, U. N., & Madaminovna, B. M. (2022). THE STUDY OF THE CONCEPT AS A UNIT OF COGNITIVE LINGUISTICS. Modern Journal of Social Sciences and Humanities, 4, 66-69.
13. Pulatova, M. (2019). The main finite difference method summation of L. Euler series. In Science and practice: a new level of integration in the modern world (pp. 219-222).
14. Jabbarov, U. (2020). Individual Psychological Characteristics Of Students In Teaching Foreign Language Sciences. Журнал иностранных языков и лингвистики, 1(1), 38-42.
15. Абдуллаева, Р. М. (2022). Интеграция С Клиническими Дисциплинами В Медицинском Вузе При Обучении Русскому Языку Специальности. Central Asian Journal of Medical and Natural Science, 3(6), 94-97.
16. Абдуллаева, Р. М. (2022). Коммуникационные Технологии Языкового Обучения В Медицинском Вузе. Central Asian Journal of Medical and Natural Science, 3(6), 98-102.
17. Abdullaeva, R., Esanow, F. N. U., & Eshbaeva, N. (2022). Translation as a means of teaching clinical terminology.
18. Абдуллаева, Р. М. (2019). Ситуативный контекст в процессе преподавания русского языка студентам медицинских вузов. In Современная Россия в мировом политическом процессе: глобальное и региональное измерение (pp. 357-363).
19. Абдуллаева, Р. М. (2021). СЕТЕВЫЕ ТЕХНОЛОГИИ НА ЗАНЯТИЯХ РУССКОГО ЯЗЫКА В МЕДИЦИНСКОМ ВУЗЕ. Редакционная коллегия.
20. Кулахметова, Ж. Т. (2018). ЗНАЧЕНИЕ ИСПОЛЬЗОВАНИЯ ИНФОРМАЦИОННО-КОММУНИКАЦИОННЫХ ТЕХНОЛОГИЙ ПРИ ОБУЧЕНИИ ИНОСТРАННЫМ ЯЗЫКАМ. НАУКА И ИННОВАЦИИ В XXI ВЕКЕ: АКТУАЛЬНЫЕ ВОПРОСЫ, ОТКРЫТИЯ, 51.
21. Abdullaeva, R., Mirrahimova, G., Israilova, I., Eshbaev, O., & Aminova, G. (2020). Learning foreign vocabulary using computer programs. International Journal of Psychosocial Rehabilitation, 24(S1), 567-572.
22. Mirzatullaeva, A. R., Jabbarovich, E. U., Shuhratovna, M. G., Erikovna, N. F., & Majlimovna, P. M. (2019). Uso de tecnologias multimedia modernas en clases de idiomas extranjeros. Religación. Revista de Ciencias Sociales y Humanidades, 4(18), 80-85.
23. Абдуллаева, Р. М. (2016). СВОЕОБРАЗИЕ СИСТЕМЫ ОБРАЗОВАНИЯ ВЕЛИКОБРИТАНИИ. Ученый XXI века, 9.

24. Zairova, N. B. (2022). THE USE OF ARTICULATORY STATES OF SOUNDS IN THE ELIMINATION OF PHONETIC-PHONEMIC SPEECH DEFICITS OF STUDENTS IN GENERAL EDUCATION SCHOOLS IN LOGOPEDIC TRAINING. *The American Journal of Social Science and Education Innovations*, 4(11), 23-27.
25. Zairova, N. B. (2022). ORGANIZATION AND CONDUCT OF SPEECH THERAPY CLASSES WITH STUDENTS WITH SPEECH DISORDERS IN SECONDARY SCHOOLS. *The American Journal of Interdisciplinary Innovations and Research*, 4(11), 75-80.
26. Abdullayeva, Y. (2022). THE IMPORTANCE OF COMPUTER PROGRAMS IN FORMING THE VOCABULARY OF CHILDREN WITH SPEECH DEFICIENCIES. *The American Journal of Interdisciplinary Innovations and Research*, 4(11), 87-92.
27. Sabirova, Z. I. (2022). PREPARATION OF CHILDREN WITH SPEECH DISTURBANCE IN SCHOOL IN THE CONDITIONS OF A PRESCHOOL EDUCATIONAL INSTITUTION. *The American Journal of Interdisciplinary Innovations and Research*, 4(11), 59-64.
28. Sabirova, Z. I. (2022). PREPARATION OF CHILDREN WITH SPEECH DISTURBANCE IN SCHOOL IN THE CONDITIONS OF A PRESCHOOL EDUCATIONAL INSTITUTION. *The American Journal of Interdisciplinary Innovations and Research*, 4(11), 59-64.
29. Ixamjanova, S. Z. (2021, May). MODELING THE DEVELOPMENTAL ENVIRONMENT IN SCHOOLS FOR CHILDREN WITH SEVERE DISABILITIES. In *E-Conference Globe* (pp. 259-263).
30. Sabirova, Z. (2021). Model of preparing children with delayed mental development to school in conditions of preschool educational institutions. *ACADEMICIA: AN INTERNATIONAL MULTIDISCIPLINARY RESEARCH JOURNAL*, 11(2), 700-706.
31. Shoakhmedova, S. K. (2022). CHARACTERISTICS OF THE SPEECH THERAPIST'S ACTIVITY IN THE GENERAL EDUCATION SCHOOL IN THE CONDITIONS OF INCLUSIVE EDUCATION. *The American Journal of Social Science and Education Innovations*, 4(11), 17-22.
32. Shoakhmedova, S. K. (2022). USE OF COMPUTER TECHNOLOGIES IN WORK WITH CHILDREN WITH SPEECH DISORDERS. *The American Journal of Interdisciplinary Innovations and Research*, 4(11), 81-86.
33. Gapurova, D. (2022). DIFFERENTIAL DIAGNOSIS OF CHILDREN WITH COMPLEX DEVELOPMENTAL DISORDER. *The American Journal of Social Science and Education Innovations*, 4(11), 12-16.
34. Gapurova, D. (2022). CHILDREN WITH COMPLEX DEVELOPMENTAL DISABILITIES (CHILDREN WITH SENSORY AND MENTAL DISABILITIES). *The American Journal of Social Science and Education Innovations*, 4(11), 06-11.

35. Gapurova, D. (2021). Children with complexed developmental disorders. *ACADEMICIA: AN INTERNATIONAL MULTIDISCIPLINARY RESEARCH JOURNAL*, 11(2), 683-687.
36. Гапурова, Д. Т. (2020). АЛОҲИДА ЁРДАМГА МУҲТОЖ БОЛАЛАРНИНГ ТАЪЛИМ ОЛИШ ИМКОНИЯТЛАРИ. ИННОВАЦИИ В ПЕДАГОГИКЕ И ПСИХОЛОГИИ, (SI-2№ 8).
37. Gapurova, D. T. (2019). Vocabulary Disorders of Children with Motor Alalia. *Eastern European Scientific Journal*, (1).
38. Alimova, K. K. (2022). DEVELOPMENT OF GRAPHOMOTOR SKILLS IN CHILDREN WITH SPEECH DISORDERS CURRENT ISSUES. *International Journal of Pedagogics*, 2(12), 05-09.
39. Alieva, S. S. (2022). MECHANISMS OF DEVELOPMENT OF VOICE DISORDERS IN DYSARTHRIA. *The American Journal of Social Science and Education Innovations*, 4(11).
40. Alieva, S. S. (2022). PECULIARITIES OF SPEECH OF CHILDREN WITH DYSARTHRIA. *The American Journal of Social Science and Education Innovations*, 4(11), 41-46.
41. Shaabdurakhimova, S. S. (2021). Voice formation mechanism and causes of voice impairment. *ACADEMICIA: An International Multidisciplinary Research Journal*, 11(3), 2259-2265.
42. Khusniddinova, B. K. (2022). INTERACTION OF A SPEECH THERAPIST WITH OTHER PARTICIPANTS IN THE CORRECTIONAL PROCESS. *The American Journal of Social Science and Education Innovations*, 4(11), 01-05.
43. Khusniddinova, B. X. (2021). LOGOPEED'S CODE OF ETHICS. *CURRENT RESEARCH JOURNAL OF PEDAGOGICS*, 2(09), 97-100.
44. Khusniddinova, S. K. (2019). Didactic Games Role in Work on Sound Automation. *Eastern European Scientific Journal*, (1).
45. Abutova, S. O. (2022). RULES FOR COMMUNICATING WITH PRESCHOOL CHILDREN WHO STUTTER. *American Journal Of Social Sciences And Humanity Research*, 2(12), 48-55.
46. кизи Мукимджонова, У. В., Исаков, М. Ю., & Худжаева, Н. Т. (2022). VIGNA SINENSIS, PHASELOUS AYREUS, ARACHNIS HYPOGAEA O‘SIMLIKLAR DONLARI VA POYALARINING ORGANIK TARKIBI. *Журнал химии товаров и народной медицины*, 1(2), 185-202.
47. Исаков, В. Ю., Исаков, М. Ю., & Мукимжоннова, У. В. К. (2022). МИКРОБИОГЕННЫЕ ЭЛЕМЕНТЫ В СИСТЕМЕ «ПОРОДА-ПОЧВА-РАСТЕНИЕ» НА ЛУГОВО-ОАЗИСНЫХ ПОЧВАХ ЗАПАДНОЙ ФЕРГАНЫ. *Universum: химия и биология*, (9-1 (99)), 45-50.
48. Кушназарова, Ш. К., Азимов, Н. Ш., Валиев, Н. В. Ў., & Очилов, Г. М. (2022). РЕЗУЛЬТАТЫ ОПРЕДЕЛЕНИЯ ТЯЖЕЛЫХ МЕТАЛЛОВ В НЕКОТОРЫХ ВИДАХ СЫРОГО МЯСА. *Universum: химия и биология*, (11-1 (101)), 53-57.

49. Хамзахўжаев, А. А., Валиев, Н. В., & Очилов, Ғ. М. (2021). МЕЛАМИННИНГ САНОАТДА ҚЎЛЛАНИЛИШИГА ОИД АЙРИМ МАСАЛАЛАР ТЎҒРИСИДА. Журнал естественных наук, 3(5).
50. Akhiyarov, A. A., Lobov, A. N., Ivanov, S. P., Spirikhin, L. V., Gabbasov, T. M., Tsyrlina, E. M., ... & Yunusov, M. S. (2020). Antiarrhythmic agents based on diterpenoid alkaloid lappaconitine. Protonation of N-deacetylappaconitine in methanol solutions. Russian Chemical Bulletin, 69(3), 567-571.
51. Ботиров, Р. А., Валиев, Н. В. Ў., Жураев, О. Т., Садиков, А. З., Сагдуллаев, Ш. Ш., & Турсунова, Ш. З. (2020). Технология производства алкалоида стахидрина из растения Capparis spinoza L. Universum: технические науки, (9-2 (78)), 55-59.
52. Omonjonovich, N. B., Kosimovna, K. S., Valijon o'g'li, V. N., & Shukhratovich, A. N. (2022). ON THE MODERN INTERPRETATION OF THE HISTORY OF CHEMISTRY. Open Access Repository, 8(12), 655-658.
53. Kosimovna, K. S., Omonjonovich, N. B., Shukhratovich, A. N., & Azamovna, K. M. (2022). CLASSIFICATION OF HEAVY METALS IN MEAT AND DAIRY PRODUCTS BASED ON THE DEFINITION. Open Access Repository, 8(11), 260-265.
54. Кушназарова, К. Ш. (2022). Совершенствование системы классификации мясомолочной продукции на основе товарной номенклатуры (Doctoral dissertation, Автореферат диссертации на соискание ученой степени доктора философии по техническим наукам (PhD). Ташкент).
55. Кушназарова, Ш. К., Азимов, Н. Ш., Валиев, Н. В. Ў., & Очилов, Ғ. М. (2022). РЕЗУЛЬТАТЫ ОПРЕДЕЛЕНИЯ ТЯЖЕЛЫХ МЕТАЛЛОВ В НЕКОТОРЫХ ВИДАХ СЫРОГО МЯСА. Universum: химия и биология, (11-1 (101)), 53-57.
56. КАРИМОВА, Д. Б., КАЗИМОВА, Н. М., АСЛАНОВА, Ф. И., МЕЛИБОЕВА, Г. С., & МАХМУДОВ, И. Т. (2015). ОПРЕДЕЛЕНИЕ УСЛОВИЙ СИНТЕЗА ГЕКСААЛЮМИНАТА ЛАНТАНА МАГНИЯ. In Поколение будущего: Взгляд молодых ученых-2015 (pp. 25-26).
57. КАРИМОВА, Д. Б., КАЗИМОВА, Н. М., МАХМУДОВА, С. А., ДЕХҚОНОВА, К. Д., & МАХМУДОВ, И. Т. (2015). ДИСЛОКАЦИОННЫЕ ДЕФЕКТЫ В МОНОКРИСТАЛЛАХ ГЕКСААЛЮМИНАТА ЛАНТАНА МАГНИЯ. In Молодежь и XXI век-2015 (pp. 15-18).
58. Муминова, Р. Н., & Казимова, Н. М. (2015). Проблема очистки сточных вод в Узбекистане. Молодой ученый, (22), 47-48.
59. ХАЛИМОВА, М. Р., ТАШПУЛАТОВА, Д. С., & КАЗИМОВА, Н. М. (2015). АНТРОПОГЕННОЕ ВОЗДЕЙСТВИЕ НА ЧИСЛЕННОСТЬ РАСТИТЕЛЬНОГО МИРА. In Молодежь и XXI век-2015 (pp. 363-365).

60. НОМОЗОВ, Ш. Ю. О., КАЗИМОВА, Н. М., & МАХМУДОВ, И. Т. (2014). ОСОБЕННОСТИ ПОЛУЧЕНИЯ БИТУМА ИЗ ГОССИПОЛОВОЙ СМОЛЫ. In Будущее науки-2014 (pp. 105-107).
61. Туляганов, Т. С., Козимова, Н. М., & Султанов, С. А. (2008). Новые алкалоиды *Peganum Harmala* {Peganaceae. Растительные ресурсы, 44(1), 82-86.
62. Tulyaganov, T. S., Kozimova, N. M., & Allaberdiev, F. K. (2006). Alkaloids from plants of the genus *Nitraria*. Chemistry of natural compounds, 42(2), 198-200.
63. кизи Мукимджонова, У. В., Исаков, М. Ю., & Худжаева, Н. Т. (2022). VIGNA SINENSIS, PHASELOUS AYREUS, ARACHNIS HYPOGAEA O'SIMLIKLAR DONLARI VA POYALARINING ORGANIK TARKIBI. Журнал химии товаров и народной медицины, 1(2), 185-202.
64. Azimova, N. R., Hojaev, V. U., Hojayeva, N. T., & Oxunov, I. I. (2020). NICOTINE-CONTAINING PLANTS. Life Sciences and Agriculture, 2(2), 37-41.
65. Ravshanovna, A. N., Umarovich, X. J. V., Toshtemirovna, X. J. N., & Islomovich, O. I. (2020). Tarkibida nikotin saqlovchi o'simliklar. Life Sciences and Agriculture, (2-2), 37-41.
66. Рахимова, Г. С., Мирзахамдамова, Д. З., & Расулов, М. А. (2016). Экологические проблемы в области Фергане: исторический аспект. Высшая школа, (21-2), 73-75.
67. Рахимова, Г. (2020). ОЛМАЛИҚ ШАҲРИДА ЭКОЛОГИК ҲОЛАТНИНГ ЎЗГАРИШ САБАБЛАРИ. ВЗГЛЯД В ПРОШЛОЕ, (SI-3).
68. Рахимова, Г. С. (2020). 1950-80 ЙИЛЛАРДА НАВОИЙ ВИЛОЯТИДА ЭКОЛОГИК ҲОЛАТЛАР. In ИННОВАЦИОННЫЕ ПОДХОДЫ В СОВРЕМЕННОЙ НАУКЕ (pp. 135-138).
69. Рахимова, Г. С. (2020). БУХОРО ВИЛОЯТИДАГИ САНОАТ КОРХОНАЛАРДАГИ ИҚТИСОДИЙ МУАММОЛАРНИНГ ОҚИБАТЛАРИ. ВЗГЛЯД В ПРОШЛОЕ, 3(11).
70. Rakhimova, G. S. (2022). KARAKALPAKISTAN, ENVIROMENTAL SITUATION. Oriental renaissance: Innovative, educational, natural and social sciences, 2(5-2), 176-181.
71. Sobirjonovna, R. G. (2021). IMPACT OF PROBLEMS IN THE INDUSTRY OF KARAKALPAKISTAN ON THE ENVIROMENTAL SITUATION.
72. Рахимова, Г. (2020). ЎЗБЕКИСТОНДА 1940-1980 ЙИЛЛАРДА САНОАТЛАШТИРИШ СИЁСАТИНИНГ ОҚИБАТЛАРИ. ВЗГЛЯД В ПРОШЛОЕ, 3(8).
73. Rahimova, M. O., & Muhammadqodirova, F. O. (2022). THE HISTORY OF THE DEVELOPMENT OF THE UZBEK NATIONAL LANGUAGE IN THE 20TH CENTURY. European Journal of Interdisciplinary Research and Development, 10, 132-135.

74. Rakhimova, M. O. (2022). About antonymy. Eurasian Research Bulletin, 14, 309-311.
75. Odilovna, R. M., & Otabekna, M. F. (2022). Presupposition of Adjectives. Eurasian Scientific Herald, 14, 17-19.
76. Rahimova, M. (2022). SEMIOTIC ISSUES OF WORD NOMEMA. INTERNATIONAL JOURNAL OF SOCIAL SCIENCE & INTERDISCIPLINARY RESEARCH ISSN: 2277-3630 Impact factor: 7.429, 11(09), 333-336.
77. ODILOVNA, R. M. (2022). THE SOUND SIDE OF THE WORD AND ITS SIGNIFICANCE. International Journal of Philosophical Studies and Social Sciences, 2(1), 61-64.
78. Odilovna, R. M. (2021). Meaning and its Place in the Symbolic Status of the Word. European Journal of Life Safety and Stability (2660-9630), 12, 96-98.
79. Раҳимова, М. (2021). НОМЕМА ВА СЕМЕМАНИНГ ЎЗАРО МУНОСАБАТИ: DOI: 10.53885/edinres. 2021.23. 79.047 М. Раҳимова, Қўқон ДПИ, филология фанлари бўйича фалсафа доктори. In Научно-практическая конференция.
80. Rakhimova, M., & Muhammadkadirova, F. (2021). CORRELATIVE WORDS. In International journal of conference series on education and social sciences (Online) (Vol. 1, No. 2).
81. Odilovna, R. M. (2018). The Role and Status of Linguistic Markers in the System of Symbols. ANGLISTICUM. Journal of the Association-Institute for English Language and American Studies, 7(7), 29-34.
82. Раҳимова, М. О. (2017). ПРИОБРЕТЕНИЕ ЗНАКОВОСТИ СЛОВА В ВИРТУАЛЬНЫХ И АКТУАЛЬНЫХ СИТУАЦИЯХ. Ученый XXI века, (1-2).