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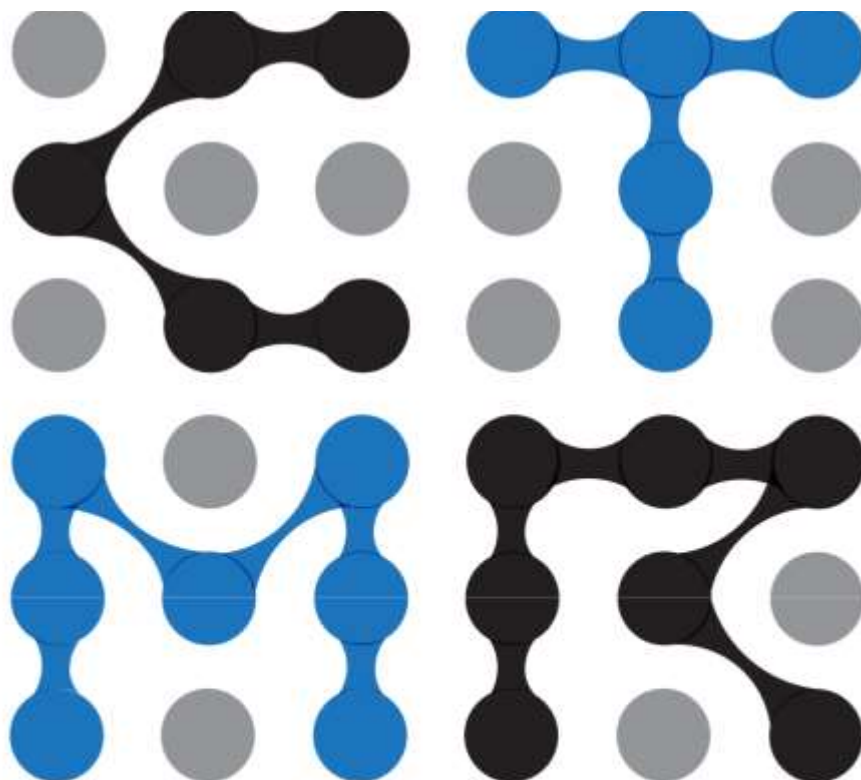
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**CENTER FOR TECH
AND MEDIA RESEARCH**

**SATIRICAL WORKS IN ENGLISH LITERATURE: JONATHAN SWIFT AND
OTHER SATIRICAL WRITERS**

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Abstract: This thesis explores the role of satire in English literature, with a particular focus on Jonathan Swift and other prominent satirical writers. It examines how satire has been used as a tool for social and political critique, analyzing key works by Swift, such as “Gulliver's travels” and “A Modest Proposal”, alongside contributions from other significant satirists. The study aims to understand the techniques of satire employed, the historical and cultural contexts of the works, and the impact of satire on both contemporary and modern audiences.

Keywords: Satire, Jonathan Swift, English literature, Gulliver's travels, a modest proposal, Alexander Pope, Voltaire, Candide, Charles Dickens, Victorian satire, irony, parody, social critique, literary techniques, satirical tradition

**INGLIZ ADABIYOTIDAGI SATIRIK ASARLAR: JONATHAN SWIFT VA
BOSHQA SATIRIK YOZUVCHILAR**

Mamasoatova Sevara Pulatovna

Termiz davlat pedagogika instituti talabasi

Annotatsiya: Ushbu tezis ingliz adabiyotida satiraning rolini o'rganadi, ayniqsa Jonathan Swift va boshqa mashhur satirik yozuvchilarga e'tibor qaratadi. Satira qanday qilib ijtimoiy va siyosiy tanqid uchun vosita sifatida ishlatilganligini o'rganadi, Swiftning “Gulliverning Sayohatlari” va “Mo‘tabar Taklif” kabi muhim asarlarini va boshqa muhim satirik yozuvchilarning hissa qo'shgan asarlarini tahlil qiladi. Tadqiqot satiraning qo‘llanilgan texnikalari, asarlarning tarixiy va madaniy kontekstlari va satiraning zamonaviy va hozirgi auditoriyalarga ta'sirini tushunishni maqsad qiladi.

Kalit so'zlar: Satira, Jonathan Swift, ingliz adabiyoti, Gulliverning sayohatlari, mo‘tabar taklif, Aleksandr Pope, Voltaire, Kandide, Charlz Dikkins, Viktoriya davri satirasi, ironik, parodiya, ijtimoiy tanqid, adabiy texnikalar, satirik an'ana

**САТИРИЧЕСКИЕ ПРОИЗВЕДЕНИЯ В АНГЛИЙСКОЙ ЛИТЕРАТУРЕ:
ДЖОНАТАН СВИФТ И ДРУГИЕ САТИРИЧЕСКИЕ ПИСАТЕЛИ**

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Аннотация: В данной диссертации исследуется роль сатиры в английской литературе, с особым акцентом на Джонатана Свифта и других выдающихся сатирических писателей. Рассматривается, как сатира использовалась как инструмент социальной и политической критики, анализируются ключевые произведения Свифта, такие как «Путешествия Гулливера» и «Скромное предложение», а также вклад других значительных сатириков. Цель исследования — понять использованные техники сатиры, исторический и культурный контексты произведений и влияние сатиры на как современную, так и современную аудиторию.

Ключевые слова: Сатира, Джонатан Свифт, английская литература, Путешествия Гулливера, Скромное предложение, Александр Поуп, Вольтер, Кандид, Чарльз Диккенс, викторианская сатира, ирония, пародия, социальная критика, литературные техники, сатирическая традиция

Introduction

Satire has long been a powerful literary device for critiquing societal norms, politics, and human behavior. This thesis investigates the use of satire in English literature, highlighting Jonathan Swift's influential contributions and comparing them with the works of other notable satirical writers. By analyzing the thematic concerns, stylistic elements, and cultural impacts of satirical works, the study aims to provide a comprehensive understanding of satire's role in shaping literary discourse.

Methodology

1. Textual analysis:

- Close readings: Detailed examination of key satirical texts by Jonathan Swift, including “Gulliver's travels” and “A modest proposal”, as well as works by other satirists such as Alexander Pope, Voltaire, and Charles Dickens.

- Satirical techniques: Analysis of the literary techniques used in satire, including irony, exaggeration, and parody.

2. Historical and cultural context:

- Contextual background exploration of the historical and social contexts in which these satirical works were produced, including the political and economic conditions of their time.

- Impact of satire: Investigation of how these works were received by contemporary audiences and their influence on later literary and social developments.

3. Comparative study:

- Comparative analysis: Comparison of Swift's satirical approach with that of other writers to identify similarities and differences in their techniques and thematic concerns.

- Evolution of satire: Examination of how satire has evolved over time and its relevance in different historical and cultural contexts.

Findings

1. Jonathan Swift's satirical techniques:

- Irony and Parody: Swift's use of irony and parody in "Gulliver's travels" critiques political and social institutions by presenting absurd and exaggerated scenarios.

- Social Critique: "A modest proposal" employs shock value and satirical reasoning to address issues of poverty and exploitation in 18th-century Ireland.

2. Other notable satirists:

- Alexander pope: His "The Rape of the Lock" uses satire to critique social vanity and superficiality through a mock-epic format.

- Voltaire: In "Candide", Voltaire employs satire to critique philosophical optimism and the corrupt social and political systems of his time.

- Charles Dickens: Works like "A Tale of Two Cities" and "The Pickwick Papers" use satire to expose social injustices and critique the moral failings of Victorian society.

3. Impact and reception:

- Contemporary relevance: Satirical works by Swift and others were influential in their time, challenging prevailing attitudes and prompting social and political discourse.

- Modern adaptations: The techniques and themes of classic satire continue to influence modern literature, media, and political commentary.

Discussion

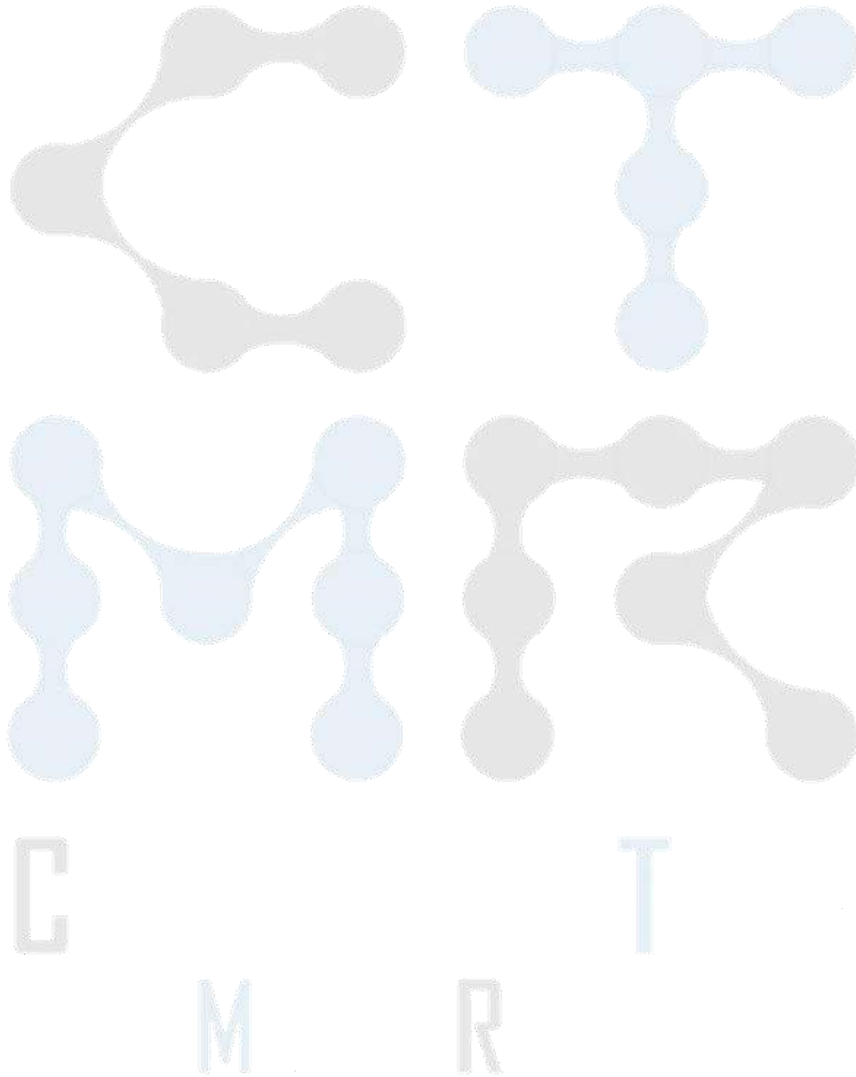
The analysis highlights the significance of satire as a critical tool in literature, demonstrating how writers like Jonathan Swift used humor and exaggeration to address serious social and political issues. The comparison with other satirical writers reveals a rich tradition of using satire to provoke thought and effect change. This study underscores the enduring relevance of satire in critiquing societal norms and exploring human behavior.

Conclusion

Satirical works in English literature, particularly those by Jonathan Swift and his contemporaries, have played a crucial role in critiquing and reflecting upon societal issues. By employing various satirical techniques, these writers have influenced literary traditions and contributed to ongoing discussions about social and political issues. This thesis demonstrates the importance of satire in understanding both historical and modern literary landscapes.

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**EFFECTIVE METHODS AND STRATEGIES FOR VOCABULARY ACQUISITION
ЭФФЕКТИВНЫЕ МЕТОДЫ И СТРАТЕГИИ ДЛЯ ОСВОЕНИЯ СЛОВАРНОГО
ЗАПАСА****SO'Z BOYLIGINI OSHIRISH UCHUN ENG YAXSHI USULLAR VA
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Annotation: This article explores various effective methods and strategies for acquiring English vocabulary. The focus is on immersive reading, flashcards, conversational practice, mnemonic devices, and technology-assisted learning tools. By integrating these approaches, learners can significantly enhance their vocabulary retention and overall language proficiency. Case studies illustrating successful vocabulary acquisition are also discussed.

Keywords: Vocabulary acquisition, immersive reading, flashcards, conversational practice, mnemonic devices, technology-assisted learning, language proficiency

Аннотация: Эта статья исследует различные эффективные методы и стратегии для изучения английского словарного запаса. Основное внимание уделяется погружающему чтению, карточкам, разговорной практике, мнемоническим устройствам и инструментам обучения с помощью технологий. Интеграция этих подходов может значительно улучшить запоминание словарного запаса и общие языковые навыки учащихся. Также обсуждаются кейсы, иллюстрирующие успешное освоение словарного запаса.

Ключевые слова: Освоение словарного запаса, погружающее чтение, карточки, разговорная практика, мнемонические устройства, обучение с помощью технологий, языковая компетенция

Annotatsiya: Ushbu maqola ingliz tili lug'at boyligini oshirish uchun turli samarali usullar va strategiyalarni o'rganadi. Asosiy e'tibor ingliz tilidagi kitoblarni o'qish, fləşkartlar, suhbat amaliyoti, mnemonik usullar va texnologiyaga asoslangan o'qitish vositalariga qaratiladi. Ushbu yondashuvlarni birlashtirish orqali o'rganuvchilar lug'atni yodda saqlash va umuman til bilimi darajasini sezilarli darajada yaxshilashlari mumkin. Shuningdek, muvaffaqiyatli lug'atni o'rganishning misollari ham muhokama qilinadi.

Kalit so'zlar: Lug'atni o'rganish, ingliz tilidagi kitoblarni o'qish, fləşkartlar, suhbat amaliyoti, mnemonik usullar, texnologiyaga asoslangan o'qitish, til bilimi

Introduction

Vocabulary acquisition is a critical component of language learning that significantly impacts reading comprehension, communication skills, and overall linguistic proficiency. While traditional methods of rote memorization remain prevalent, contemporary approaches

emphasize contextual learning and practical application. This thesis examines the most effective strategies for vocabulary enhancement, drawing on current research and pedagogical practices.

Literature review

Research indicates that vocabulary acquisition is most effective when learners are exposed to new words in varied and meaningful contexts. Studies by Nation (2001) and Schmitt (2008) highlight the importance of both incidental and intentional vocabulary learning, suggesting that a combination of methods yields the best results.

Methods and strategies

1. Immersive reading

- Contextual learning: Reading extensively in English exposes learners to new vocabulary within context, aiding in retention and understanding.

- Variety of texts: Incorporating a range of genres, such as fiction, non-fiction, newspapers, and academic articles, helps learners encounter diverse vocabulary.

2. Flashcards and spaced repetition

- Active recall: Flashcards facilitate active recall, a process proven to enhance memory.

- Spaced repetition systems (SRS): Utilizing SRS, such as Anki, ensures that vocabulary is reviewed at optimal intervals, improving long-term retention.

3. Engagement in conversation

- Practical application: Regular conversations with native speakers or fellow learners provide opportunities to use new vocabulary in real-life situations.

- Language exchange programs: Participating in language exchange programs can provide a structured yet informal environment for practice.

4. Mnemonic devices

- Memory aids: Mnemonic devices, such as acronyms, associations, and imagery, can help learners remember difficult words.

- Personal connections: Creating personal connections with words, like relating them to one's own experiences, enhances recall.

5. Technology-assisted learning tools

- Language apps: Applications like Duolingo, Memrise, and Quizlet offer interactive and gamified approaches to vocabulary learning.

- Online resources: Websites and online courses provide access to vast repositories of vocabulary exercises and materials.

Case studies: To illustrate the effectiveness of these strategies, this thesis includes case studies of learners who have successfully expanded their vocabulary using the aforementioned methods. Each case study examines the specific strategies employed, the challenges faced, and the outcomes achieved.

Conclusion

A multifaceted approach to vocabulary acquisition, incorporating immersive reading, flashcards, conversational practice, mnemonic devices, and technology-assisted tools, offers the most effective means of expanding one's English vocabulary. By integrating these strategies, learners can enhance their linguistic proficiency and achieve greater success in mastering the English language.

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UDK.63.5995

Тема. Место зависимость от пищевой продуктивности бычков голштинской чёрно-пёстрый породы и их качества в инновационной технологии кормления.

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Аннотация. на то, чтобы полностью раскрыть наследственный потенциал мясной продуктивности быков, которых кормят утками, влияет множество факторов. Главным и самым важным из них является полноценное их кормление. Быков кормили в основном кормами, выращенными на самой ферме, и их тип, а также количество варьировались в зависимости от периода выращивания. Стоит отметить, что одним из важнейших веществ, участвующих в образовании новых тканей и органов в растущем организме быков, является белок. С возрастом животных расход массы белка на живую единицу уменьшается. Полноценный прием пищи при недостатке белка в рационе было обнаружено, что даже когда количество белка превышает норму, аппетит животных ухудшается и отстает в росте. Это связано с тем, что основная часть азота выводится с фекалиями и мочой. При этом содержание белка в живой массе увеличивается, а жира уменьшается. Концентрированные корма играют важную роль в обеспечении качественным мясом крупного рогатого скота, которого кормят на мясо в умеренных количествах. Вот почему мы нормировали количество этого типа корма в рационе животных с учетом периода их роста. Предположим, что с точки зрения питательности всего потребляемого корма концентрированные корма составляли около 18,0-19,0% в начальный период роста, то есть от рождения до 6 месяцев, в то время как этот показатель удваивался в конце эксперимента, то есть в период окончательного убоя, и достигал 36-37%. Существенных межгрупповых различий в составе рациона быков в целом не наблюдалось, что свидетельствует о однородности условий их кормления. Следует отметить, что практически во все периоды эксперимента показатели роста помесных быков превосходили показатели чистокровных. Было обнаружено, что особенности, по которым быки в своих группах компенсируют съеденную ими пищу живым весом, неразрывно связаны с их продуктивностью. Помесные животные с более высокой живой массой потребляли меньше кормовых единиц на 1 кг живой массы по сравнению с их чистокровными аналогами.

Ключевые слова. Порода, Корма, Жирное молоко, Зелёная люцерна, Зелёная кукуруза, Сенаж, Кукурузный силос, Сено люцерны, Камбикорма, Сухое вещество, Перевариваемый белок.

Введение. Животноводство-важнейшая отрасль сельского хозяйства, производящая мясо, молоко, масло, яйца, мед и другие продукты для потребления человеком. В качестве сырья для промышленности животноводство производит шерсть, крачку, мех, подшерсток, тивит, пар, кокон, щетину, пух, шерсть

1. Важная задача, стоящая в настоящее время перед животноводцами Узбекистана, заключается в обеспечении народов нашей республики производимой животноводческой продукцией. Эффективность производимой животноводческой продукции выражается в экономических показателях, т. е. в том, каков корм, израсходованный на молоко, мясо, яйца и различные другие продукты, их себестоимость и уровень эффективности.

Так, за три последующих года прирост поголовья крупного рогатого скота составил в среднем по всем регионам 125%, или в среднем по республике их количество на 1 января 2022 года достигло 13 млн. 555,8 тыс. голов. Особо следует отметить, что животноводство республики формируется в основном в личных и крестьянских хозяйствах населения и интенсивно увеличивается за счет них.

В том числе 94% крупного рогатого скота и 95% коров приходится на долю личных хозяйств населения. По данным на 1 января 2022 года в нашей республике в 2022 году произведено 2 640,4 т мяса в живом весе. Производство молока (в расчете на тысячу тонн)- в хозяйствах всех категорий - 11286,9 тыс. тонн. Среднее поголовье овец и коз на 1 января 2022 года достигло 23 млн 074,3 тыс. голов.

2. Укрепление дехканской жизни, ориентация большого потенциала свободного крестьянских (фермерского) хозяйства на полное обеспечение населения Узбекистана продуктами питания составляют основу политики развития крестьянских (фермерских) хозяйств, которая сегодня является одним из видов предпринимательской деятельности. Количество действующих в нашей республике крестьянских (фермерских) хозяйств превысило 20 тысяч. В качестве самостоятельного товаропроизводящего субъекта крестьянских (фермерское) хозяйство выступает как равноправное юридическое лицо с предприятием и организацией других форм собственности и хозяйственного ведения. Следует отметить, что между правовым управлением и административным распоряжением нет ничего общего, поскольку в административном управлении крестьянин-трудящийся является простым исполнителем приказа сверху. Однако фермер (фермер) сегодня является предпринимателем и экономически свободным человеком, который самостоятельно решает все вопросы, связанные с производственной хозяйственной деятельностью, и своевременно выполняет свои текущие установленные обязательства. Поэтому одним из важных условий предпринимательской деятельности является доскональное знание прав и обязанностей будущих крестьянских (фермерских) хозяйств, установленных законодательством Республики Узбекистан. В последнее время нашим президентом и правительством было принято несколько указов и постановлений по развитию крестьянских (фермерских) хозяйств. В том числе: о дополнительных мерах по дальнейшей государственной поддержке животноводческой отрасли. (Решение президента PQ-5017.), О дополнительных мерах по дальнейшему развитию коневодства и конного спорта и популяризации современного пятиборья и поло (постановление президента ПК-5024), о дополнительных мерах по дальнейшему развитию каракулеводства (указ президента ПК-4984). Льготы, предоставляемые в соответствии с пунктом 2 постановления Президента Республики Узбекистан от 18 марта 2019 года № ПП-4243"о мерах по дальнейшему развитию и поддержке животноводческой отрасли", распространяются также на все хозяйствующие субъекты, производящие животноводческую продукцию, и на предприятия, производящие корма. С 1 января 2021 г. по 1 января 2024 г. для субъектов разведения применяется налог на прибыль по основному виду их деятельности (кроме процентов, полученных от средств, размещенных в коммерческих банках), налог на имущество, земельный налог и ставка налога за пользование водными ресурсами в размере 50%. Решением президента для развития животноводства и его отраслей в Узбекистане в 2022 году будут привлечены кредитные средства Всемирного банка в размере 300 млн долларов. Кроме того, будут

учреждены значки преданный ветеринару и преданный животноводству. 8 февраля было принято постановление Президента "Об утверждении Программы развития животноводства и его отраслей в Республике Узбекистан на 2022-2026 годы". Документ опубликован в Узбекистане Согласно документу, утверждена Программа развития животноводства и его отраслей в Узбекистане на 2022-2026 годы, а также "дорожная карта" по реализации поставленных задач в 2022 году. До 1 января 2022 г.: освободить от уплаты таможенных пошлин (за исключением налога на добавленную стоимость и сборов за таможенное оформление) производителей кормовых культур, а также комплектующих и сырья, ввозимых производителями систем капельного и дождевого орошения и их комплектующих, необходимых для внедрения технологии капельного и дождевого орошения, согласно перечню в приложении 7; Одной из основных возможностей интенсивного развития животноводства и его головной отрасли является учет их биологической потребности. А для этого необходимо обладать глубокими знаниями о поведенческих показателях, которые играют важную роль в правильной организации содержания и кормления животных. Было обнаружено, что домашние животные сохраняют свои этологические характеристики с самого раннего возраста до конца своей жизни. Чтобы жизнедеятельность организма была в норме, внутренняя среда, в которой находятся в движении отдельные органы и клетки, должна быть постоянной. Но при этом на организм влияют факторы, нарушающие его баланс. В процессе обмена одно вещество поступает в организм животного в достаточном количестве и начинает накапливаться, а другое - в недостаточном. Это изменение не может быть ни вредным, ни неприятным, пока оно не выйдет за рамки нормы. В организме есть несколько физиологических систем, которые восстанавливают его баланс и поддерживают его в норме. Многие из них имеют свойство несколько восстанавливать нарушенное равновесие в организме, компенсировать дефект, другими словами поддерживать состояние гомеостаза (постоянство внутренней среды организма). Научные исследования проводились в течение 2021-2022 годов в условиях специализированного животноводческого хозяйства «Ташпулатов Бахадур Джураниёзович» Шерабадского района Сурхандарьинской области на чистопородных быках Чёрное-пёстрые различных генотипах, полученных от скрещивания коров этой породы с быками голштинской породы. На первом этапе научного производственного эксперимента по признакам сходства были отобраны 3 группы по 15 голов в каждой, теперь уже рожденных телят мужского пола, с учетом их происхождения, возраста, живой массы, пола. Матери отобранных бычков за последнюю лактацию дали более 3000 кг молока, принадлежали к элитному классу отцов. На то, чтобы полностью раскрыть наследственный потенциал мясной продуктивности быков, выращиваемых на борщевике, влияет множество факторов. Главным и самым важным из них является полноценное их кормление. Быков кормили в основном кормами, выращенными на самой ферме, и их тип, а также количество варьировались в зависимости от периода выращивания. Больше всего корма потребляли быки III группы. Животные этой группы в ходе эксперимента получили соответственно 14,0 кг (0,9%) и 22,0 кг (1,4%) зелёная

кукурузы, 5,0 кг (1,5%) и 10,0 кг (3,0%) свеклы яровой, 196,0 кг (22,2%) и 120,0 кг (12,5%) сенажа, 42,0 кг (4,1%) и 38,0 кг (3,7%) потребляли много кукурузного силоса. Удовлетворение потребностей животных в элементах питания, повышение их продуктивности при нормализации питания становится важным учитывать в их рационе такие питательные единицы, как энергетический обмен, сухое вещество, сырой белок, пищеварительный белок, сырой жир, сырой клеш, безазотистые экстрактивные вещества (АЭС), кальций и фосфор. Результаты наших опытов показали, что питательная ценность кормов, потребляемых бычками III группы, выше, чем у их равных в I и II группах, соответственно, на 97,3 и 69,9 кормовых единиц, 1265,1 и 902,5 МДж соответственно.; На 131,56 и 93,86 кг сухого вещества; на 17,20 и 12,27 кг сырого белка; на 21,6 и 15,2 кг перевариваемого протеина; на 4, 0,5 и 2,89 кг сырого жира; на 33,4 и 2,89 кг сырой клетчатки; на 61,73 и 44,04 кг безазотистых добавок; на 1,64 и 1,16 кг на кальций; на 0,65 и 0,34 кг больше фосфора. Стоит отметить, что одним из важнейших веществ, участвующих в образовании новых тканей и органов в растущем организме Быков, является белок. С возрастом животных расход массы белка на живую единицу уменьшается. Когда в рационе не хватает белка, корм не потребляется полностью, что приводит к замедлению роста и развития. Было обнаружено, что даже когда количество белка превышает норму, аппетит животных ухудшается и отстает в росте. Это связано с тем, что основная часть азота выводится с фекалиями и мочой. При этом содержание белка в живой массе увеличивается, а жира-уменьшается. Чтобы избежать таких негативных последствий, мы рассчитали количество перевариваемого белка в кормлении животных, уделяя особое внимание.

Таблица 1.

Корма, затраченные на быков в ходе эксперимента, кг

Питательные вещества и их питательность	Группы		
	I	II	III
Жирное молоко	350	350	350
Зелённая люцерна	3655	3633	3742
Зелённая кукуруза	1536	1528	1550
Сенаж	882	958	1078
Кукурузный силос	1028	1032	1070
Свекла	355	350	360
Сено люцерны	1023	1017	1020
Натуральное травяное сено	404	400	395
Хлопковая шелуха	1460	1480	1480
Комбикорма	1201	1201	1201
Поваренная соль	16,2	16,2	16,2
Питательность кормов.			
Единица корма	4012,2	4039,6	4109,5

Переменная мощность MDJ	48138,75	48501,25	49403,75
Сухое вещество	5006,43	5044,13	5137,99
Сырой белок	654,69	659,62	671,89
Перевариваемый белок	460,6	466,2	481,7
жир	154,04	155,20	158,09
клетчатка	1270,86	1280,43	1304,26
АЕМ (экстракт без азота)	2349,17	2366,86	2410,90
Кальций	61,62	62,08	63,24
Фосфор	14,82	15,13	15,47

Количество перевариваемого белка в фактическом корме быков I группы, потребляемом в ходе эксперимента, составило 460,6 кг, при этом на 11 кг кормовой единицы приходилось 116 граммов перевариваемого белка. Этот показатель у бычков II и III групп составил соответственно 466,2 и 481,7 кг; 115 и 117 грамм. По показателю перевариваемого белка быки в группе III уступали быкам в группах I и II своих сверстников на 21,1 кг и 15,5 кг соответственно. Концентрированные корма играют важную роль в обеспечении качественным мясом крупного рогатого скота, которого кормят на мясо в умеренных количествах. Вот почему мы нормировали количество этого типа корма в рационе животных с учетом периода их роста. Предположим, что с точки зрения питательности всего потребляемого корма концентрированные корма составляли около 18,0-19,0% в начальный период роста, то есть от рождения до 6 месяцев, в то время как этот показатель удваивался в конце эксперимента, то есть в период окончательного убоя, и достигал 36-37%. Существенных межгрупповых различий в составе рациона быков в целом не наблюдалось, что свидетельствует о том, что условия их кормления были организованы равномерно. Следует отметить, что практически во все периоды эксперимента показатели роста помесных Быков превосходили показатели чистокровных. Было обнаружено, что особенности, по которым быки в своих группах компенсируют съеденную ими пищу живым весом, неразрывно связаны с их продуктивностью. Помесные животные с более высокой живой массой потребляли меньше кормовых единиц на 1 кг живой массы по сравнению с их чистокровными аналогами. Таким образом, результаты нашего эксперимента показали, что коровы породы Чёрное-пёстрына обеих стадиях, помесные быки с разными генотипами, полученные от скрещивания с голштинскими быками, росли более интенсивно, чем чистокровные Чёрное-пёстрые быки, и имели пропорциональное телосложение. Это, в свою очередь, привело к дальнейшему улучшению их убойных показателей, мясной продуктивности и качества мяса. Во время финального скрещивания бычки показали высокую эффективность увеличения количества корма. Эти данные свидетельствуют о том, насколько важным практическим, зоотехническим и экономическим мероприятием является учет генотипических и фенотипических факторов при выращивании животных на мясо

Выводы, Проанализировав результаты исследований, на их основе можно сделать следующие выводы:

1. В ходе эксперимента быки III группы потребляли на 101,2 и 72,2 кг кормовых единиц больше, чем их сверстники быки I и II групп соответственно. На 1 кг кормовой

единицы в группах приходилось соответственно: 115, 116 и 117 граммов перевариваемого белка.

2. Быки с разными генотипами имели более высокие показатели роста, о чем также можно судить по их живой массе. По этому показателю также животные группы III, когда их сверстники рождаются соответственно из группы I и группы II, 6, 9, 12, 15, 18 и в 21 месяц: 2,9 кг ($R < 0,05$) и 0,4 кг ($R > 0,05$), 16,5 кг ($R < 0,01$) и 7,9 кг ($r < 0,05$), 19,6 ($r < 0,01$) и 6,1 кг ($r < 0,05$), 27,5 кг ($r < 0,01$) и 7,3 кг ($r > 0,05$), 38,9 кг ($r < 0,01$), 10,7 кг ($r < 0,01$), 60,1 кг ($r < 0,01$) и достигли 18,3 кг ($r < 0,05$) большого живого веса. Статистически достоверно межгрупповые различия были выявлены как по абсолютному, однодневному и относительному росту, так и по коэффициентам роста.

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**DEVELOPMENT OF COMMUNICATION SKILLS THROUGH
ORGANIZING COMMUNICATIVE GAMES IN PRE-SCHOOL CHILDREN****Nigmatullayeva Matluba**

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Annotation: In this article, there is an opinion on the development of communication skills in preschool children through the organization of communicative games. Development of preschool children's need for knowledge, inclination to study, regularly preparing them for the educational process through various games, development of games aimed at forming communication skills.

Key words: speech, communication, motive, communication, development, physical, children, organism, intellect.

In the preschool educational organization, the goal is to educate children in all aspects, that is, from the physical, mental, moral, aesthetic point of view. This goal is realized during the development of children's speech. As a result of developing oral speech in kindergarten, the child develops mentally and his general cultural level increases. He understands the surrounding events, laws of nature and society. The development of speech in a child helps him improve mentally. The child has the ability to learn about the outside world with the help of mental processes such as memory, imagination, imagination, thinking, as well as with the help of speech. However, children's intelligence, that is, mental processes (memory, imagination, imagination, thinking, etc.) do not appear only with the growth and improvement of the child's body, but also appear and improve with the development of speech.

If a child is taught to speak correctly from an early age, then such a child develops in a normal state, that is, the ability to imagine first, and then to think, imagine, and this ability improves with each age. Along with intelligence, mental processes such as will also develop in children. Many experiments show that a child whose speech is not developed does not develop as a complete person. Therefore, the educator should always remember that speech is a tool that helps children of preschool age to develop all mental processes. At the same time as teaching the child his native language, the ground is prepared for him to study successfully at school, he is taught to approach work creatively. In all educational activities of the kindergarten, children's speech is cultivated by teaching their mother tongue. In particular, speech development activities are planned for each child.

Speech development is necessary not only for familiarizing the child with the environment, but also for his general mental development.

We can cite the following as the tasks of speech formation and development:

- education of a child's emotional dependence and trust in adults;
- satisfy the need for positive attention of the surrounding people in relation to him;
- helping to develop the child's interests;

If we talk about children's communication in general, the quality aspect of communication of preschool children with their peers is changing compared to previous periods. For preschool children (4-5 years old), communication with peers becomes a priority. They actively communicate with each other in different situations (mode moments, in the course of different types of activities - play, work, work, etc.). Communication is especially evident and developed throughout the game. The developing dialogue develops depending on the nature of the game.

Communication with peers of preschool age takes the main place in the development of intellectual, speech, emotional and moral inclinations. Psychological, social and physical development of children depends on the development of relationships with peers. The main criteria of communication: attention and interest in the other, emotional attitude towards him, initiative and sensitivity. Communication is the emotional relationship of a person to a person. Therefore, communication with peers forms, develops and corrects the child's emotional sphere. Communication is a multifaceted process of development of communication between preschool children, born on the basis of cooperative activities and needs. Communication includes the exchange of information between the participants of cooperative activities, which is expressed in the communicative form of communication. People use language as a means of communication when entering into relationships with each other. The second aspect of communication is the interaction between the person who initiates the communication. In this, not only words are exchanged, but also actions and situations. For example, it is possible to communicate between a seller and a buyer without saying a word. The third aspect of communication is the perception of the interlocutors. It is important that the participants in the conversation understand each other correctly. Thus, three conditional moments of communication can be distinguished: communicative (giving information), interactive (interaction) and perceptive (mutual perception).

The unity of these three aspects of communication is manifested as a method of organizing the interaction and cooperative activities of preschool children who are engaged in communication. The purpose of the communication is to exchange information, establish mutual understanding and mutual relations with the students using various communication tools. The educational and didactic tasks of pedagogues cannot be carried out without ensuring the relationship between the teacher and the student community. During joint activities, people share different ideas, thoughts, and feelings. In this case, thoughts and feelings can be interpreted as information, and communication as information exchange. But interpersonal communication is not just an exchange of information. Because in the process of communication, information is not only transmitted, but also formed, clarified, developed.

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To develop children's interest in visual art, their outlook on art*Mirsaid Mukhiddinovich Murtazoev**Bukhara State University, student*

Abstract. Knowledge of drawing is necessary not only for artists, designers, architects, but also for teachers, engineers, doctors, builders, agronomists, soldiers, and scientists. The schools are called general secondary education schools according to their name, and have the task of providing children with general, elementary knowledge and skills in fine, practical and architectural arts, among other subjects. It should also be noted that general secondary education schools do not train artists, do not envisage working with talented children and developing them.

Key words: Picture, knowledge, artist, designer, architect, teacher, school, education, children, science, fine art, knowledge.

The purpose of the subject of visual arts in general secondary education schools is focused on the formation of the artistic culture of a well-rounded, perfect person.

The subject of visual arts provides basic knowledge and skills of artistic culture, which are necessary for every person. Because every student, regardless of what field he will work in the future, he will have to rest, relax, and restore the energy spent during work. He achieves this by getting acquainted with works of art made at a high artistic level in museums, exhibitions and other places, perceiving them and enjoying them. Students will have to make a certain amount of paintings in their future life.

Knowledge of drawing is necessary not only for artists, designers, architects, but also for teachers, engineers, doctors, builders, agronomists, soldiers, and scientists. The schools are called general secondary education schools according to their name, and have the task of providing children with general, elementary knowledge and skills in fine, practical and architectural arts, among other subjects. It should also be noted that general secondary education schools do not train artists, do not envisage working with talented children and developing them.

Training of artists, work with talented children is carried out in school clubs, special schools and academic lyceums, colleges and universities. It is not correct to try to give tasks that lead to

When we talk about the tasks of visual art classes at school, they can be conditionally divided into two parts.

1. The special tasks of fine arts classes are:

teaching to see, perceive, understand and appreciate the beauties of existence and art; development of aesthetic and artistic taste; expanding children's range of artistic thought; development of artistic creativity and imagination; to introduce the theoretical foundations of fine art (light, shadow, color science, perspective, composition); formation of elements and skills related to painting, sculpting, artistic construction; development of observation, visual memory, ability to guess, spatial and image perception, abstract and logical thinking; teaching to read and understand visual and practical architectural works of art; arousing interest in art, teaching to appreciate and love it.

2. Additional duties of fine arts teachers, they are; help to know the rest, life; implementation of the ideology of national pride and national independence; moral to children (patriotic, international); implementation of work, physical education; sending children to various professions and trades.

When talking about the purpose and tasks of the visual arts subject, it should be noted that it is connected with almost all subjects taught at school and has an effective effect on mastering the materials related to them. . It is especially important in reading, literature,

geography, natural science, biology, history, mathematics, and labor lessons. Visual arts are useful even for physical education, chemistry, and music classes. It should also be noted that fine art is aimed at the implementation of aesthetic education, but it also serves to increase the effectiveness of moral, labor, environmental, and physical education classes.

Fine art is considered the main educational subject aimed at the implementation of aesthetic education in the school, and it is implemented in the following directions:

- teaching students to perceive the beauties of nature, art and life:
- education of students' aesthetic taste, ability to appreciate beauty, teaching to distinguish real beauty from ugly events and things;
- to develop the skills to show oneself in the visual and creative activities of a person, to support one's behavior and to add beauty to life:
- expanding children's range of artistic thinking, etc.

According to its nature, the subject of fine art education is important in developing such qualities as aesthetic perception, aesthetic pleasure, aesthetic feeling, aesthetic taste, aesthetic judgment, aesthetic evaluation, aesthetic creativity, which are the basis of aesthetic education. plays a role. In decorative composition classes, students feel the beauty of patterns and practical art objects and try to create such compositions themselves.

Students are excited by the bright and shiny, elegant and clean nature of things, the return or exchange of their parts, and their symmetrical arrangement. The variety of colors and shapes of flowers in nature, butterflies and dragonflies, the light makeup of birds, the beauty of spring and autumn landscapes, the lushness of willows, the glistening of lawns under the sunlight, and the evening flickering of house windows are exciting. The growth of such a feeling in children leads to the formation of the skills of aesthetic evaluation of the properties of objects and events. The use of figurative expressions in children's activities, i.e. "good mood", "joyful", "like on a holiday" indicates that they are developing the skills of aesthetic perception of existence and events.

By showing the branches and leaves of the trees, the teacher notes that the young leaves are light-green and delicate in color. emphasizes that the grains of iron look like silver. In nature in the autumn season, the yellow and red colors of tree leaves have become golden, and the rustling "talking" of fallen leaves is figuratively expressed.

Children depict houses, trees, birds, animals, people, vehicles in their pictures. From this, they face the dimensions, proportions, texture, shapes, and colors of the subjects without words and try to place them correctly in the picture compositionally. This encourages us to think about the proportionality, perfection, appropriateness of their structure. Children think about the aspects of objects and animals that attract them in terms of shape and color, from which side they look beautiful, and what are their good and useful aspects. As the students think about things and events in nature, the teacher focuses on the beauty and perfection of the events and events that match their understanding. Through beauty experiences, he tries to teach children to appreciate the surrounding phenomena and events, awakens feelings of humanity, love for the country, passion for work.

Fine art helps children to know existence and life. Before starting to draw pictures of things and events, they study the structure, shape, dimensions, color, and spatial conditions of things and describe them in their work. They also get an idea about the life of the observed living things, as a result, the children's imagination about the world deepens and expands, and their memories develop.

On the basis of observation of historical, batal genre paintings of fine art, illustrations used in literary works, children will learn about the lifestyle, culture, clothing, and working tools of our ancestors who lived thousands of years ago. They will have an idea about the structure, shape, color, dimensions of buildings, plants, animals, objects of that period. It is known that children will have a lot of knowledge about historical events, battles, people's lives, animals, urban and natural landscapes in the paintings that work in historical, battle, landscape, life, still life, animal, legendary genres.

In the process of teaching fine arts, the tasks set allow students to show their individuality and intellectual abilities one by one. Children encourage themselves to be creative when solving educational tasks. They are not able to solve the problem quickly and easily in a way that is already known to the creator, but they use their creativity and imagination, the qualities of moderation and harmony through new, irreversible solutions to the problem. As a result, a certain amount of original, new, irrevocable creative product is born.

Creativity, creative thinking persons are not simple performers, they are the main force that develops society. That is why our society needs thinking, inquisitive, creative, initiative people, not robot-like performers. The development of our society largely depends on such people. Thinking, inquisitive, creative people in our society who can quickly and easily find a solution to any unforeseen situation in our society will raise the development of our nation to new levels.

Creative thinking gives rise to completely new ideas and imaginations, helps to realize hidden abilities and opportunities, individuality. It should be noted that such qualities are important not only for scientists, but also for workers in all fields (engineers, doctors, farmers, bakers, etc.).

The subject of visual arts is not only important in the aesthetic education of young people, but also occupies an important place in moral education. Especially, visual art classes have a great power in forming the ideology of national independence, in patriotism and international education, in forming the ideas of friendship and mutual assistance among young people. Looking at the visual arts program of the school, it is full of visual art works that express the great past of our country, the struggle of our compatriots for independence, the refined nature of Uzbekistan, and the ideas of friendship between peoples. we will be the witness of the overflow.

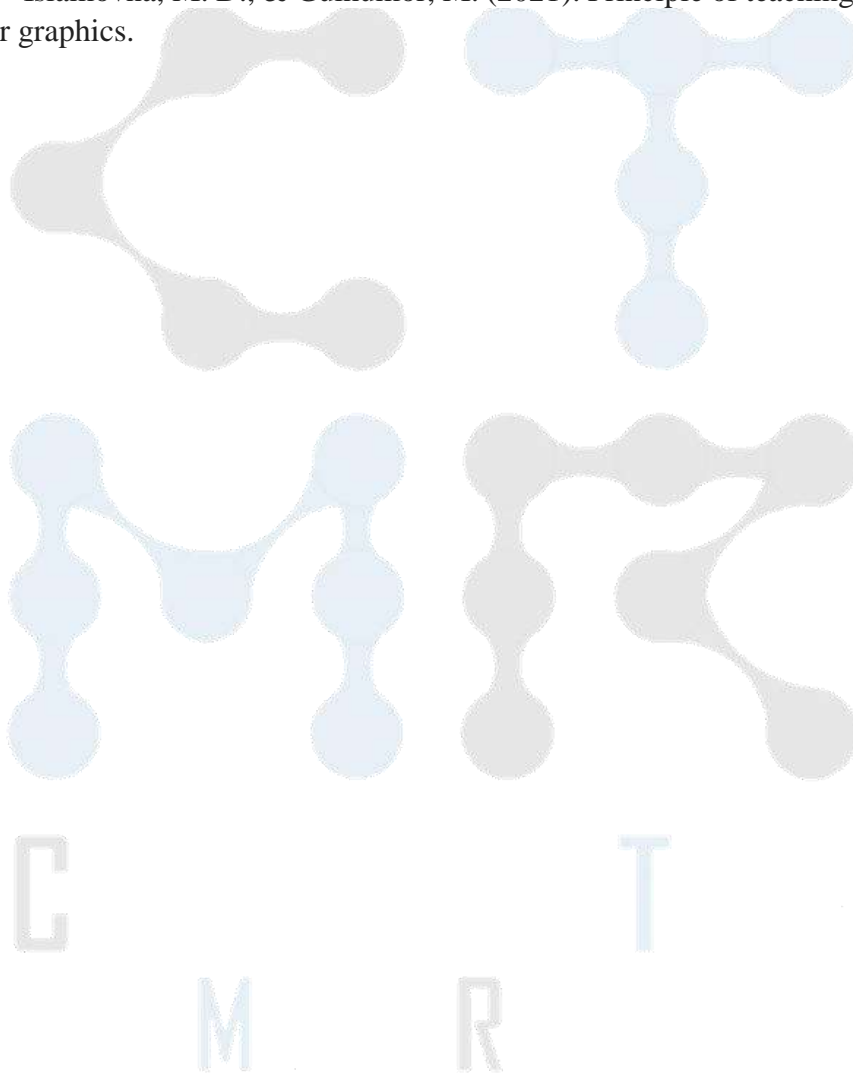
In today's conditions, where the scale of necessary knowledge for a person is expanding, it is impossible to limit yourself to the acquisition of a certain set of facts. Therefore, it is necessary to teach students to fill and enrich their knowledge independently, to focus their attention on the most important scientific and political information. This task requires the expansion and development of students' visual art lessons in a way that is integrally connected with the educational process.

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MORPHOLOGY OF THE HEART IN DIFFERENT FORMS OF TUBERCULOSIS.

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Relevance of the topic: Tuberculosis is an airborne infection that most often affects the lungs, but can also "attack" other organs: bones, skin, intestines, and the heart. The cause of the disease is Mycobacterium tuberculosis bacteria. They cause inflammation in certain areas, resulting in the formation of nodules and foci of necrosis (ie, dead tissue) in the tissues. Because of them, the organs cannot work normally, and the body reacts with general intoxication.

If immunity or drugs do not stop the disease in time, the person may die. According to the World Health Organization, tuberculosis is one of the ten leading causes of death worldwide. The main source of infection is sick people. However, there is also a possibility of the disease being transmitted from animals.

The more sick people around, the higher the risk of infection. It is not out of the question to encounter such patients in public places in big cities. The majority of patients have a closed form of the disease, that is, the bacteria gnaw the body, but are not released into the environment.

The open form of tuberculosis is very dangerous for others (and for the patients themselves), so it is necessary to treat it in a hospital. Prolonged contact with people suffering from the open form of tuberculosis is a big risk.

The purpose of the work: as the purpose of the work, the aim of the work was to determine the morphological changes in the heart from the internal organs of the patients who died with various forms of tuberculosis at the Khorezm Branch of the Republican Scientific and Practical Medical Center of Phthisia and Pulmonology.

The results obtained: as a result of scientific research, when the bodies of patients with various forms of tuberculosis were autopsied at the Bureau of Pathological Anatomy of Khorezm Region, it was found that there were morphological changes in the heart tissue from the internal organs. As a result, it was found that the patients had acute heart failure as a complication.

Conclusions: in conclusion, it can be said that when the corpses of patients who died from various forms of tuberculosis in Khorezm region were examined by autopsy, it was found that there were morphological changes in their internal organs, that is, in the heart. As a result, it was found that most patients died as a result of acute heart failure as a complication of the disease.

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GRAPHIC DATA TRAINING IN PYTHON

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Abstract

This research paper explores the methodologies and tools available in Python for graphic data training, focusing on the efficient handling, visualization, and modeling of large datasets. Python's rich ecosystem of libraries such as Matplotlib, Seaborn, Plotly, and TensorFlow allows data scientists and developers to build sophisticated models that can extract meaningful insights from complex data. The paper discusses various techniques for training machine learning models using graphic data, including data preprocessing, feature extraction, and the application of neural networks. The results demonstrate the effectiveness of Python in handling graphic data and its applicability in various domains such as image recognition, computer vision, and data science.

Keywords

Graphic Data, Python, Data Training, Visualization, Machine Learning, Neural Networks, TensorFlow, Matplotlib, Seaborn, Computer Vision.

Introduction

Graphic data, which includes images, plots, and other visual data forms, is crucial in data analysis and machine learning. The ability to visualize data effectively allows for better understanding, interpretation, and communication of insights. Python, with its rich ecosystem of libraries, provides robust tools for graphic data training, enabling the creation of complex visualizations and the training of models on visual data.

This paper discusses the various Python libraries and techniques used for graphic data training, illustrating their applications with practical examples. We will also explore the integration of graphic data into machine learning models, highlighting the role of Python in this process.

2. Python Libraries for Graphic Data Training

Python offers a range of libraries specifically designed for graphic data manipulation and visualization. These libraries allow users to create a wide variety of charts, plots, and complex visualizations. Below, we discuss some of the most commonly used libraries.

2.1 Matplotlib

Matplotlib is one of the most widely used Python libraries for creating static, interactive, and animated visualizations. It is highly customizable, allowing users to generate plots, histograms, power spectra, bar charts, error charts, and scatterplots.

Example:

```
import matplotlib.pyplot as plt

# Sample data

x = [1, 2, 3, 4, 5]

y = [10, 20, 25, 30, 35]

# Create a simple line plot

plt.plot(x, y)

plt.title("Sample Line Plot")

plt.xlabel("X Axis")

plt.ylabel("Y Axis")

plt.show()
```

2.2 Seaborn

Seaborn is built on top of Matplotlib and provides a high-level interface for drawing attractive and informative statistical graphics. It simplifies the process of creating complex visualizations, particularly those related to statistical data.

Example:

```
import seaborn as sns

import matplotlib.pyplot as plt

# Sample data

tips = sns.load_dataset("tips")

# Create a seaborn plot

sns.boxplot(x="day", y="total_bill", data=tips)

plt.title("Total Bill by Day")

plt.show()
```

3. Integrating Graphic Data with Machine Learning

Python also supports the integration of graphic data into machine learning models, which is crucial for tasks such as image recognition, object detection, and visual pattern analysis. Libraries like TensorFlow and PyTorch are commonly used for these purposes.

3.1 TensorFlow

TensorFlow is an open-source platform for machine learning. It offers comprehensive tools for building and training machine learning models on large datasets, including graphic data.

Example:

```
import tensorflow as tf

# Load and preprocess image data
(image_train, label_train), (image_test, label_test) = tf.keras.datasets.cifar10.load_data()
image_train, image_test = image_train / 255.0, image_test / 255.0

# Build a simple CNN model
model = tf.keras.models.Sequential([
    tf.keras.layers.Conv2D(32, (3, 3), activation='relu', input_shape=(32, 32, 3)),
    tf.keras.layers.MaxPooling2D((2, 2)),
    tf.keras.layers.Flatten(),
    tf.keras.layers.Dense(64, activation='relu'),
    tf.keras.layers.Dense(10, activation='softmax')])

# Compile and train the model
model.compile(optimizer='adam', loss='sparse_categorical_crossentropy',
metrics=['accuracy'])

model.fit(image_train, label_train, epochs=10, validation_data=(image_test, label_test))
```

3.2 PyTorch

PyTorch is another powerful machine learning library used for tasks involving graphic data. It is known for its flexibility and ease of use in developing deep learning models.

Example:

```
import torch

import torch.nn as nn

import torch.optim as optim

from torchvision import datasets, transforms

# Data transformation and loading

transform = transforms.Compose([transforms.ToTensor(), transforms.Normalize((0.5,),
(0.5,))])

train_data = datasets.MNIST(root='./data', train=True, download=True,
transform=transform)

train_loader = torch.utils.data.DataLoader(train_data, batch_size=64, shuffle=True)

# Define a simple CNN model

class CNN(nn.Module):

    def __init__(self):

        super(CNN, self).__init__()

        self.conv1 = nn.Conv2d(1, 32, 3, 1)

        self.conv2 = nn.Conv2d(32, 64, 3, 1)

        self.fc1 = nn.Linear(9216, 128)

        self.fc2 = nn.Linear(128, 10)

    def forward(self, x):

        x = torch.relu(self.conv1(x))

        x = torch.relu(self.conv2(x))

        x = torch.flatten(x, 1)

        x = torch.relu(self.fc1(x))

        x = self.fc2(x)

        return torch.log_softmax(x, dim=1)
```

```
# Initialize model, optimizer, and loss function

model = CNN()

optimizer = optim.Adam(model.parameters(), lr=0.001)

criterion = nn.CrossEntropyLoss()

# Train the model

for epoch in range(10):

    for images, labels in train_loader:

        optimizer.zero_grad()

        output = model(images)

        loss = criterion(output, labels)

        loss.backward()

        optimizer.step()
```

4. Case Studies

4.1 Graphic Data in Healthcare

In healthcare, graphic data is often used in diagnostic tools such as MRI and X-ray image analysis. Python-based machine learning models can be trained to recognize patterns in these images, assisting in early diagnosis and treatment planning.

4.2 Graphic Data in Autonomous Vehicles

Autonomous vehicles rely heavily on graphic data from cameras and sensors to navigate. Python libraries like OpenCV, combined with TensorFlow or PyTorch, are used to train models that interpret visual data, detect objects, and make driving decisions.

Challenges and Future Directions

While Python offers a comprehensive suite of tools for graphic data training, challenges remain, such as the need for large datasets, high computational resources, and the complexity of model interpretability. Future developments may focus on improving the efficiency of these processes and enhancing the capabilities of Python libraries to handle even more complex visual data tasks.

Conclusion

Python's extensive library support makes it an excellent choice for graphic data training, from simple visualizations to complex machine learning models. The tools discussed in this paper demonstrate Python's ability to handle a wide range of graphic data tasks, making it an indispensable resource for data scientists and machine learning practitioners.

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**QORAQALPOG'ISTON RESPUBLIKASIDA KICHIK TADBIRKORLIK
SUBYEKTLARI FAOLIYATINI BAHOLASH VA PROGNOZLASH**

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Annotatsiya. Mazkur maqola Qoraqalpog'iston Respublikasida kichik biznes sub'ektlari faoliyatini baholash va prognozlashga bag'ishlangan. Rivojlanayotgan iqtisodiy muhit va kuchayib borayotgan raqobat sharoitida kichik biznes mintaqa barqaror rivojlanishining muhim elementiga aylanmoqda. maqolada kichik biznes sohasidagi mavjud tendentsiyalar tahlil qilinib, uning samaradorligi va raqobatbardoshligiga ta'sir etuvchi asosiy omillar aniqlangan. Statistik tahlil va modellashtirish usullaridan foydalangan holda kelgusi yillarda sohani rivojlantirish prognozlari, shuningdek, biznes sharoitlarini yaxshilash bo'yicha tavsiyalarni taklif ishlab chiqilgan.

Аннотация. Статья посвящена оценке и прогнозированию деятельности субъектов малого предпринимательства в Республике Каракалпакстан. В условиях динамично меняющейся экономической среды и растущей конкуренции, малый бизнес становится важным элементом устойчивого развития региона. В работе анализируются текущие тенденции в сфере малого предпринимательства, выявляются ключевые факторы, влияющие на его эффективность и конкурентоспособность. Используя методы статистического анализа и моделирования, автор предлагает прогнозы развития сектора на ближайшие годы, а также рекомендации по улучшению условий для ведения бизнеса.

Annotation. The article is devoted to the assessment and forecasting of small businesses in the Republic of Karakalpakstan. In conditions of dynamically changing economic environment and growing competition, small business becomes an important element of sustainable development of the region. The paper analyses current trends in the sphere of small business, identifies key factors affecting its efficiency and competitiveness. Using the methods of statistical analysis and modelling, the author offers forecasts of the sector's development for the coming years, as well as recommendations for improving the business environment.

Kalit so'zlar. Kichik biznes, model, regression tahlil, determinatsiya koeffitsiyenti, Student mezon, Durbin-Watson statistikasi.

Ключевые слова. Малый бизнес, модель, регрессионный анализ, коэффициент детерминации, критерий Стьюдента, статистика Дурбина-Ватсона.

Keywords. Small business, model, regression analysis, coefficient of determination, Student's criterion, Durbin-Watson statistics.

Kirish

Hozirgi innovasion iqtisodiyot sharoitida iqtisodiy jarayonlarni tarkibiy o'zgartirish va diversifikasiyalash davrida kichik tadbirkorlik subyektlari faoliyatini ilmiy asoslangan statistik ko'rsat kichiklar tizimi asosida chuqur tahlil qilish, ishlab chiqarish samaradorligini oshirishning mavjud imkoniyatlarini belgilash hamda rivojlanish tendensiyalarini prognozlash muhim ahamiyat kasb etadi. Shunday ekan statistik tahlil va ekonometrik modellashtirishni takomillashtirishning ustuvor yo'nalishlarini ilmiy-uslubiy ta'minlash uchun muhim ko'rsatkichlarni tuzish va prognozashtirishning uslubiy masalalarini xalqaro talablarga muvofiq olib borish hozirgi kunning dolzarb masalalaridan biri hisoblanadi.

Kichik tadbirkorlik subyektlari faoliyatini samarali tashkil etish muammosi hukumatimizning va mutaxassis-olimlarning doimiy e'tiborida. Bu borada Respublikamiz Prezidenti va Vazirlar Mahkamasining qator farmon va qarorlari qabul qilinmoqda, respublika va xalqaro miqyoslarda anjumanlar o'tkazilmoqda. Shunday ekan kelgusida mamlakatimiz iqtisodiyotini yanada rivojlantirish, aholi turmush darajasini oshirish, kambag'allikni qisqartirish maqsadida "2022 — 2026 yillarga mo'ljallangan yangi O'zbekistonning taraqqiyot strategiyasi" qabul qilindi. Ushbu strategiyaning 3-bo'limi "Milliy iqtisodiyotni jadal rivojlantirish va yuqori o'sish sur'atlarini ta'minlash" deb nomlanib, 29-maqсадida "Tadbirkorlik faoliyatini tashkil qilish va doimiy daromad manbalarini shakllantirish uchun sharoitlar yaratish, xususiy sektorning Yalpi ichki mahsulotdagi ulushini 80 foizga va eksportdagi ulushini 60 foizga yetkazish" ko'zda tutilgan [1].

Yuqoridagilardan kelib chiqqan holda KBXT faoliyatini hududlarda rivojlantirish hozirgi kunning dolzarb masalalaridan biri hisoblanadi. Shundan kelib chiqib, kichik tadbirkorlik subyektlari sohasida ishlab chiqarish va xizmat ko'rsatish korxonalarini bilan kooperasiyaga asoslangan holda mahsulot ishlab chiqarish faoliyatini samarali tashkil etishda kichik korxonalarini diversifikatsiyalash va modernizatsiya qilish bilan birga ishlab chiqarish jarayonini ekonometrik modellashtirish muhim o'rinni egallaydi.

Asosiy qism.

Kichik tadbirkorlik subyektlarining taraqqiyotini ta'minlashda nafaqat ular uchun yaratilgan shart-sharoitlar balki iqtisodiy taraqqiyotning barqarorlik darajasi hamda iqtisodiyot tarmoqlarining mutanosib ravishda rivojlanishi ham alohida ahamiyat kasb etadi. Mintaqada kichik tadbirkorlik subyektlari faollik darajasini ta'minlashda tarmoqlarning rolini baholash masalasiga e'tibor qaratib o'tildi. Bunda tarmoqlar kesimida kichik tadbirkorlik subyektlari yashovchanlik koeffitsienti o'zgarishini, mintaqa kesimidagi umumiy ko'rsatkichga ta'siri baholab o'tildi. Ushbu tahlilni amalga oshirish uchun 2014 – 2024 yillar ma'lumotlaridan foydalanildi. Regression tahlil natijalari asosida quyidagi modelga ega bo'lindi.

$$JK = 0,18 * QXK + 0,21 * SK + 0,07 * QK + 0,23 * SAK + 0,05 * TSK + 0,02 * YOK + 0,05 * AAK + 0,03 * SSK + 0,15 * BK$$

Bu yerda: QXK – qishloq, o'rmon va baliq xo'jaligida kichik tadbirkorlik subyektlarini faollik darajasi, foizda; SK - sanoatda kichik tadbirkorlik subyektlarini faollik darajasi, foizda; QK – qurilishda kichik tadbirkorlik subyektlarini faollik darajasi, foizda; SAK – savdoda kichik tadbirkorlik subyektlarini faollik darajasi, foizda; TSK – tashish va saqlash sohasidagi kichik tadbirkorlik subyektlarini faollik darajasi, foizda; YOK – yashash va ovqatlanish byo'icha xizmatlar sohasidagi kichik tadbirkorlik subyektlari faollik darajasi, foizda; AAK – axborot va aloqa sohasidagi kichik tadbirkorlik subyektlari faollik darajasi, foizda; SSK – sog'liqni saqlash va ijtimoiy xizmatlar byo'icha xizmatlar sohasidagi kichik tadbirkorlik subyektlari faollik darajasi, foizda; BK – boshqa sohalardagi kichik tadbirkorlik subyektlari faollik darajasi, foizda.

Ozod hadni mavjud mezonlar bo'yicha adekvat bo'lmaganligi sababli uni modeldan chiqarib tashlandi. Modelning ishonchlilik darajasini baholash uchun mezonlar natijalarini keltirib o'tamiz. Student mezon natijalari barcha koeffitsientlarning yuqori darajada ishonchli ekanligini asoslamogda va ularning ehtimollik ko'rsatkichlari 99,9 foizdan katta. Bundan tashqari determinatsiya koeffitsientining birga teng bo'lishi mintaqada kichik tadbirkorlik

subyektlari faollik darajasini o'zgarishlarining to'liq tarmoqlar kesimidagi o'zgarishlarga bog'liq ekanligini asoslamoqda. Bundan tashqari MAPE (Mean Absolute Percentage Error) ko'rsatkichini 0,0002 ga tengligi modeldagi xatolik darajasini nolga yaqinligini asoslaydi (1-jadval).

1-jadval

Mintaqada kichik tadbirkorlik subyektlari faollik darajasiga tarmoqlar kesimidagi o'zgarishlar ta'sirini baholash natijalari

Model 7: OLS, using observations 2014-2024 (T = 11)

Dependent variable: JK

	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-ratio</i>	<i>p-value</i>	
QXK	0.181993	0.000454263	400.6	<0.0001	***
SK	0.212571	0.000343603	618.7	<0.0001	***
QK	0.0714490	0.000372611	191.8	<0.0001	***
SAK	0.226806	0.000540809	419.4	<0.0001	***
TSK	0.0540488	0.000241398	223.9	<0.0001	***
YOK	0.0237550	0.000439049	54.11	0.0003	***
AAK	0.0512825	0.000241030	212.8	<0.0001	***
SSK	0.0286741	0.000211572	135.5	<0.0001	***
BK	0.150960	0.000674710	223.7	<0.0001	***
Mean dependent var	91.66550		S.D. dependent var	6.557186	
Sum squared resid	3.47e-07		S.E. of regression	0.000417	
Uncentered R-squared	1.000000		Centered R-squared	1.000000	
F(9, 2)	5.94e+10		P-value(F)	1.68e-11	
Log-likelihood	79.38389		Akaike criterion	-140.7678	
Schwarz criterion	-137.1867		Hannan-Quinn	-143.0251	
rho	-0.756365		Durbin-Watson	3.465332	

Aniqlanilgan koeffitsientlar mintaqada kichik tadbirkorlik subyektlari faollik darajasini ta'minlashda savdoning ahamiyati yuqori, ya'ni savdoda kichik tadbirkorlik subyektlari faollik darajasini bir foizga oshishi umumiy ko'rsatkichni 0,23 foizga oshishini ta'minlaydi. Ahamiyatlilik nuqtai nazaridan keyingi o'rinlarda sanoat va qishloq, o'rmon va baliq xo'jaliklari kelib ular ta'sirini ifodalovchi koeffitsientlar mos ravishda 0,21 va 0,18 tengligi aniqlanilgan.

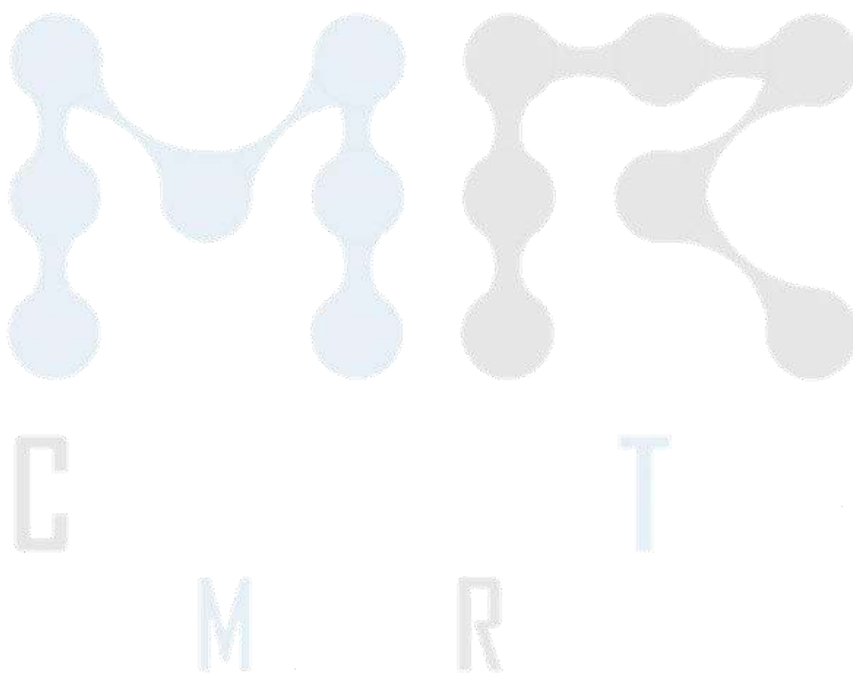
Statistik ma'lumotlar asosida amalga oshirilgan tahlil natijalarini ko'rsatishicha 2023 yilda mintaqada kichik tadbirkorlik subyektlari faollik darajasining pasayishi kuzatilgan bo'lib, buning asosiy sabablaridan biri sifatida tadbirkorlik subyektlarini tarmoqlar kesimidagi mutanosibliigi buzilishini ko'rsatish mumkin. Statistik ma'lumotlar hamda yuqorida keltirilgan tahlil natijalari ushbu xulosalarimizni asoslamoqda.

Natijalar va xulosa

Tahlillarni ko'rsatishicha mintaqad kichik tadbirkorlik subyektlari faollik darajasini ta'minlashda, tarmoqlar kesimidagi mutanosib rivojlanishga erishish lozim. SHuningdek, tarmoqlar kesimidagi ta'sirni bahola natijalariga ko'ra savdo, sanoat va qishloq, o'rmon va baliq xo'jaligidagi o'zgarishlarning oqibatlari ahamiyatli ekanligini asoslanildi.

Foydalanilgan adabiyotlar ro‘yxati

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