16+

International Research Conference on Technology, Science, Engineering & Economy

Scientific public organization “Professional science”

Seattle, USA

UDC 330-399
LBC 60

Editors
Natalya Krasnova | Managing director SPO “Professional science”
Yulia Kanaeva | Logistics Project Officer SPO “Professional science”

International Research Conference on Technology, Science, Engineering & Economy, August 25th, 2022, Seattle, USA. SPO “Professional science”, Lulu Inc., 2022, 53 p./ DOI 10.54092/9781471069598

ISBN 978-1-4710-6959-8

Presenters outline their work under the following main themes: education, equality and development, pedagogy, language and culture in education, principles of environmental health, physiology, economics, finance & accounting.

The conference is well attended by representatives from more than 5 universities with participation of higher education institutional policymakers, governmental bodies involved in innovating, deans and directors, educational innovators, university staff and umbrella organizations in higher education.

www.scipro.ru

UDC 330-399
LBC 60

ISBN 978-1-4710-6959-8

© Article writers, 2022

© Scientific public organization “Professional science”, 2022

© Publisher: Lulu, Inc., USA

TABLE OF CONTENTS

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

SECTION 1. ECONOMICS

UDC 33

Matov M.B. Improving the management system of logistics business processes in motor transport activities

Совершенствование системы управления логистическими бизнес-процессами в автотранспортной деятельности

Matov Maxim Borisovich,
graduate student of the Northern (Arctic) Federal University
named after M. V. Lomonosov, Arkhangelsk
Матов Максим Борисович, магистрант
ФГАОУ ВО «Северный (Арктический) федеральный университет»
им. М. В. Ломоносова г. Архангельск

Abstract. *The paper discusses the issues of quality and efficiency of service in the field of road transport management. The interrelation of quality management and logistics management in the field of cargo transportation is analyzed. The idea of a conceptual approach to the quality management of transport services is presented, which is based on the principles of a synergetic system approach and logistics management.*

Keywords: *principles, logistics, cargo transportation, quality, transport, services, synergy, business process, consumer, TQM.*

Аннотация. *В работе рассматриваются вопросы качества и эффективности обслуживания в сфере управления автомобильным транспортом. Анализируется взаимосвязь управления качеством и логистическим управлением в сфере грузоперевозок. Излагается идея концептуального подхода к управлению качеством транспортных услуг, в основу которой положены принципы синергетического системного подхода и логистического менеджмента.*

Ключевые слова: *принципы, логистика, грузоперевозки, качество, транспорт, услуги, синергетика, бизнес-процесс, потребитель, TQM.*

DOI 10.54092/9781471069598_4

В современном мире автомобильный транспорт является ключевым звеном между экономикой и логистическими организациями, вследствие чего особую актуальность перебредают вопросы качества и эффективности автомобильного транспорта. Под транспортными услугами понимается детальность исполнителя транспортной услуги по удовлетворению грузополучателя, грузоотправителя, потребностей пассажира в перевозках, при обязательном соответствии действующим требованиям и нормам.

Под управлением качеством, в данном случае, понимается непрерывный процесс обеспечения, нормирования, поддержания стабильно высокого уровня качества услуг на всех этапах бизнес-процессов. Рассматривая сферу транспортных услуг, стоит отметить, что тут существует своя специфика. В частности, это сложность сертификации автотранспортных услуг,

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

а именно отсутствие необходимых методических и нормативных документов, которые еще только предстоит разработать.

Началом сертификации систем управления качества послужили международные стандарты серии ISO 9000, которые устанавливают четкие требования к данным системам. Осуществляя выход на международный рынок, отечественные копании столкнулись с необходимостью получения международных сертификатов качества, которые подтверждают соответствия международным стандартам, что является необходимым условием для получения льготных кредитов, страховок, а также участия в международных тендерах.

Актуальными проблемами на сегодняшний день является формирование условий, в которых будет развитие транспортного комплекса и дальнейшая интеграция транспортного комплекса в европейские, мировые транспортные системы предприятий [1]. Важно отметить, что работа над разрешением данной проблемы уже начата, и есть первые результаты, к которым можно отнести увеличение объема грузоперевозок в 2020 более чем на 10 % по сравнению с 2019 годом, при этом весь объем грузооборота приходится на автомобильный транспорт.

В области грузоперевозок, ведущая роль отводится организационному процессу грузодоставки, а не только качественным управленческим решениям. Необходимо обладать заданиями о сопроводительных документах, в частности их правильное заполнение, оперативное разрешение разнообразных возникающих проблем, а также обладание своевременным и постоянным доступом к информации об этапах перевозки. Высокий уровень качества оказываемых услуг зависит от множества факторов, к примеру, от умения предотвращать и анализировать недочёты, качества процесса перевозки, обратной связи с грузополучателем и т. д. Система управления качеством работы автотранспортной отрасли содержит множество элементов, представленных на рисунке 1 [2].

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

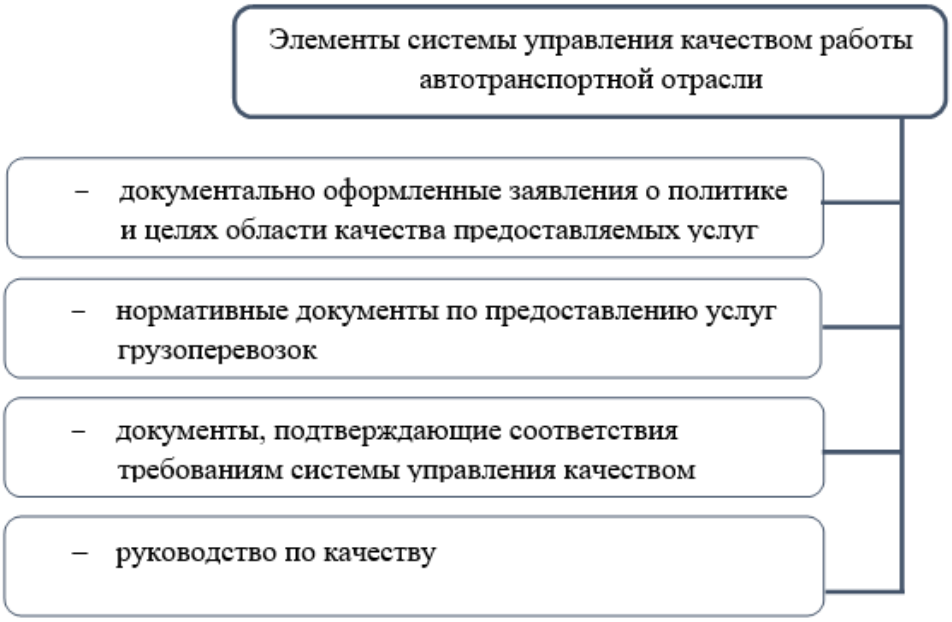


Рисунок 1 - Элементы системы управления качеством работы автотранспортной отрасли

Компании оказывающие транспортные услуги, должны быть максимально «гибкими», то есть, ориентироваться на потребности масс, на улучшение качества услуг, повышать к себе требования, быть нацеленными на увеличение объёма и качества услуг, оправдывать ожидания и соответствовать требованиям клиентов. Для того, чтобы разрешить проблему обеспечения качества, необходимо прибегнуть к использованию новейших управленческих подходов и современных управленческих концепций. Используемые подходы к управлению качеством транспортных услуг связаны со множеством недостатков:

- не учитываются взаимоотношения с потребителями услуг;

- не предполагается регулирование качества транспортной продукции при разработке и внедрении технологического процесса;

- принципы управления логистикой используются не в полной мере;

- проведения научных исследований для разработки современных концепций к управлению качеством транспортных услуг.

Разработка теоретических основ управления качеством транспортных услуг связана с определенным понятием, то есть совокупностью наиболее значимых теоретических взглядов на понимание и определение его сущности, содержания, принципов, а также условий инкубации и реализации.

В настоящее время активно применяются пять базовых концепций менеджмента качества.

1. Total Quality Management - TQM;

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

2. Бережливое производство (выявление и устранение процессов, не приносящих добавленной стоимости);

3. Канбан (обеспечение своевременной доставки продукции заказчику);

4. Кайдзен (постоянное совершенствование внутренних процессов организации с минимальными затратами ресурсов и вовлечением сотрудников в процесс внедрения улучшений);

5. Шесть сигм (минимизация количества несоответствий на миллион возможностей).

Рассматриваемая концепция TQM является распространенной, ее главная идея состоит в том, что компании необходимо работать над организацией качественных внутренних бизнес-процессов организации, а не только над качеством производимой продукции. Оказание услуг в соответствии с ожиданиями и требованиями конечного пользователя, наличие высокого качества внешних и внутренних ресурсов, четкое планирование этапов выполняемой работы, качественного документооборота позволит достичь этого [4].

Представляется необходимым в основе концепции управления качеством оказания транспортных услуг предусмотреть, во-первых, качественное формирование логистического правления, во-вторых, последующее ее плавное внедрение. Под понятием «управление логистикой» понимается процесс стратегического управления закупками, хранение и перемещение готовой продукции, при использовании соответствующих эффективных маркетинговых каналов, но таким образом, чтобы текущая и будущая прибыльность была максимизирована за счет затрат.

Следует обратить внимание, что управление качеством и логистика, это взаимосвязанные элементы, которые направленны на обеспечение эффективного использования организационных ресурсов. Логистика отвечает за эффективно организованный производственный процесс, а управление качеством, за выбор конкретной услуги или продукта. Логистический менеджмент, рассматриваемый в аспекте управления качеством транспортных услуг в первую очередь направлен на внедрение фундаментальных принципов логистики и TQM. Слаженная работа качества и логистики позволяет грамотно выстроить процесс материального потока, а также большую базу лояльных клиентов и отношений с ними, основанных на доверии и постоянном взаимодействии.

Перейдем к следующему направлению в концепции качественного управления транспортных услуг, это управление взаимоотношениями с потребителем, под которым понимается постоянный процесс, нацеленный на формирование и развитие взаимоотношений с потребителями в целях достижения выгодных решений для обеих сторон.

Использование положений управления взаимоотношениями обусловлено целевой направленностью этого процесса на удовлетворение требований потребителей к качеству оказываемых услуг, повышение их удовлетворенности, и на этой основе формирования долгосрочных отношений. При работе с потребителями используются различные виды

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

информационных систем, в том числе система оперативной информации (ФИС); управление взаимоотношениями с клиентами (CRM); система Sales Expert, как пример приложения CRM.

В целях создания долгосрочных, перспективных взаимоотношений между компанией и потребителями, представляется необходимым разработать специальную систему, элементы которой будут представлены потребителями и транспортной компанией, в целях оказания высококачественных транспортных услуг, удовлетворяющих запросы потребителя. Ключевое отличие данной системы заключается в том, что в ней предполагается комплексное участие как подчиненного, так и руководителя в управленческом процессе, в отличие от принятой традиционной модели, где менеджер – принимает решение, подчиненный – выполненяет решение руководителя.

Совместное управление подразумевает реализацию в нескольких областях:

- вовлечение потребителя в постановку целей в отношении предоставляемых услуг, а также их качества и взаимоотношений;

- потребителям предоставляется право контролировать качество предоставляемых транспортных услуг.

- совместное управление предполагает широкое участие потребителей в деятельности по рационализации, во внесении предложений по улучшению определенных элементов процесса обслуживания в предоставлении услуг, а также участие в решении проблем.

Следует обратить внимание, что вышерассмотренные направления необходимо рассматривать и использовать как единое целое.

Компания, внедряя управление взаимоотношениями с потребителями транспортных услуг, сможет эффективно сформировать и использовать цепочки качества поставщик/потребитель. В рассматриваемой нами концепции TQM несмотря на упор на потребителя, удовлетворению подлежат как внешние, так и внутренние потребители. Таким образом, участники жизненного цикла продукта формируют взаимосвязанную и неразрывную цепочку, именуемую как цепочка качества. Каждый сотрудник компании, действующий над конечным продуктом, может действовать как внутренний потребитель, вне зависимости от непосредственного участия в его создании. Внутренний потребитель – сотрудник, получает материал – сырье от поставщика – внешнего сотрудника, который действует как «внутренний сотрудник», то есть обрабатывает и передает его уже другому лицу в целях дальнейшего производства, выступая в роли «внутреннего поставщика». Таким образом, качество разделяется на внутреннее и внешнее. Для того, чтобы удовлетворить внешних потребителей, необходимо удовлетворить внутренних потребителей, то есть что бы обеспечить внешнее качество, нужно получить внутреннее качество.

Применение по отношению к управлению процессно-потребительского подхода, является практическим результатом гармонизации управленческой системы предприятия, что

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

несомненно отражается и на форсированности системы менеджмента качества транспортных услуг. Данный подход предусматривает:

1. Представление в виде процессных моделей управляемого объекта (процессы формирования качества) и управляющей организации (процессы менеджмента качества). Управление качеством процессов организовано на основе цикла «план-выполнение-проверка-действие» с включением дополнительной функции «Мотивация». Это необходимо для обеспечения ведущей роли персонала в достижении необходимого уровня качества.

2. Организацию управления по определенным взаимосвязанным циклам, соответствующим возможным категориям потребителей предприятия

3. Обеспечение менеджмента требований потребителей и целей соответствующих процессов формирования качества.

4. Более разветвленный и улучшенный механизм обратной связи, позволяющий управлять показателями качества соответствующих процессов, требованиями потребителей, целями и их реализацией.

5. Использование механизмов внешнего и внутреннего гомеостаза (саморегуляция, обеспечивающая устойчивое состояние равновесия открытой системы при ее взаимодействии с окружающей средой) [5].

Внедрение процессно-потребительского подхода обеспечит возможность исключения внутренних противоречий, не придется прибегать к принятию ограниченных или спонтанных решений в качественном аспекте.

Система менеджмента качества транспортных услуг разработана на основе синергетического системного подхода, в котором системы рассматриваются как сложные, открытые, нелинейные с характеристиками нестабильности, неравновесности, бифуркации, самоорганизации, диссипации и т. д.

Предложенная структура объектов по управлению качеством транспортных услуг сформирована на базе интегрированных процессов ее определения и формирования выходов и выходов как результата их воплощения (реализации). Одним из выходов является качество разнообразных видов ресурсов, в независимости от занимаемого места процесса в общей структуре. В качестве ресурсов могут выступать предметы труда, информация, инструменты труда. Определяющим входом в процесс потребителя является информация о возможных способах удовлетворения существующих потребностей и т. д. Под входными данными понимаются предъявляемые требования к качеству оказываемых услуг, которые поступят на вход процессов клиентского обслуживания, определяя их ресурсы, скорость, составные операции и т. д.

Результатом вышерассмотренных процессов является инструментальное и функциональное качество, напрямую связанное как с качеством производственного обучения, так и с качеством автотранспортных услуг. Все типы процессов, их «выходы» и «входы»,

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

являющиеся элементами системы объектов управления качеством, одинаково реализуются. Рассматриваемый концептуальный подход по управлению качеством транспортных услуг функционирует на принципах логистического менеджмента, гармонизации систем управления предприятием, управления взаимоотношений с потребителем, а также на принципах синергетического системного подхода. Данный системный подход, подразумевает создание самоорганизующейся системы менеджмента качества транспортных услуг [6].

Предлагаемый управленческий подход, имеет свою новизну, которая заключается во внедрении принципов концепции TQM и логистики, использования вариативного подхода, к примеру сравнение потребительской оценки автотранспортных услуг с оценкой качества процессов его формирования. Таким образом, в данном подходе, обязательно учитывается влияние на формирование конечного продукта, интегрированных процессов, а также оценка эффективности реализации каждого, отдельно взятого процесса. Помимо всего прочего, успешная реализация предложенного подхода, обеспечит разумный выбор методов повышения и предоставления качества транспортных услуг, эффективность улучшения системы управления, а в первую очередь ее качественное формирование, сравнение потребительской оценки автотранспортных услуг с оценкой качества процессов его формирования.

Таким образом, развитие экономики транспортных предприятий неразрывно связано с управлением качеством. Суть новой концепции управления качеством, состоит во внедрении фундаментальных принципов TQM и управления логистикой. Анализируя зарубежную практику, по интеграции управления логистикой, можно утверждать, что она позволяет, во-первых, сэкономить более 20 процентов затрат предприятий, при которой уменьшение логистических затрат на 1 процент приравнивается к увеличению объема на 10 процентов.

Применение системной парадигмы хозяйствующих субъектов (предприятий и потребителей) означает изменение отношения к взаимоотношениям с потребителями (включая потребителя в процессе не только покупки услуги, но и в общем процессе функционирования предприятия: развитие сервис, мотивация исполнителей услуги и др.).

Гармонизация системы управления предприятием по качеству основана на следующих принципах: иерархия структуры элементов, составляющих систему; интеграция с общей системой управления компанией; влияние на производственные процессы, а не на их результаты; изменение организационной структуры предприятия для включения внешних и внутренних потребителей в процесс оказания транспортных услуг [7].

Таким образом, предлагаемый подход по управлению качеством транспортных услуг, обеспечит возможность сформировать, а что не менее важно эффективно изложить процессный контроль непрерывной цепочки качества потребитель-поставщик-потребитель.

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

References

1. Демин В. А. Концепция аналитической модели управления в транспортно-логистической системе как подсистеме интеллектуальной транспортной системы. Вестник гражданских инженеров. 2020. С. 146–151.

2. Кураков А.Л. Динамика предпринимательских структур в процессе регионального инновационного развития. Научные труды Вольного экономического общества России. 2021. С. 342–352.

3. Лебедев Е. А. Основы организации и управления логистической системой пассажирских перевозок. Электронный сетевой политематический журнал «Научные труды КубГТУ». 2019. С. 146–153.

4. Малышева Т. В. Моделирование процессов реновации автокомпоненов в системе авторециклинга. Экономический вестник Республики Татарстан. 2020. С. 45–52.

5. Сайдашева В. А. К вопросу о тенденциях цифровизации в современной экономике. Материалы II Всероссийской научно-практической конференции Вектор развития управленческих подходов в цифровой экономике. Казанский инновационный университет имени В. Г. Тимирясова. Казань, 2020. С. 196–198.

6. Таишева Г.Р., Давыдова И. Ш. Теоретико-методические подходы к оценке потенциала выживания предприятия. Транспортное дело России. 2021. № 10. С. 142–144.

7. Фролова И. И. Повышение конкурентоспособности предприятия за счет обеспечения качества системы распределения продукции. Структурные преобразования экономики территорий: в поиске социального и экономического равновесия: сборник статей 4-й Всероссийской научно-практической конференции. Курск: Юго-Зап. гос. ун-т., 2021. С. 15–18

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

UDC 33

Rodigina N.J., Musikhin V.I., Moleva S.V., Asalieva A.A., Terekhina I.S. Energy resource market amid contemporary economic conditions

Rodigina Natalya Jurievna,
Doctor of Economics, Professor, Professor of the Department of the International and Foreign Trade of the Russian Federation, Russian Foreign Trade Academy of Ministry of Economic Development of the Russian Federation
Musikhin Vladislav Igorevich,
Postgraduate student of the Department of World and National Economy, Russian Foreign Trade Academy of Ministry of Economic Development of the Russian Federation; Leading Specialist, Price Formation Department, Transneft ElektrosetServis LLC
Moleva Svetlana Valerievna,
Ph.D, Professor of the Department of the International and Foreign Trade of the Russian Federation, Russian Foreign Trade Academy of Ministry of Economic Development of the Russian Federation
Asalieva Alina Alexandrovna,
student of the Russian Foreign Trade Academy of Ministry of Economic Development of the Russian Federation.
Terekhina Irina Sergeevna,
student of the Russian Foreign Trade Academy of Ministry of Economic Development of the Russian Federation

Abstract. *Since the end of February 2022, Western nations have been discussing the gradual phase-out of Russian Federation energy supplies as another anti-Russian penalty. At the same time, Moscow makes tens of billions of dollars each year through oil and gas exports, which provide fuel to countries all over the world. One of the most serious questions now is whether other nations will be able to gradually diminish their reliance on Russian energy supplies, if not altogether forsake them.*

Since March 2022, worldwide oil output has decreased by 3 million barrels per day, accounting for about 3% of global production and representing one of the greatest drops in supply since the 1970s. Russia controls over 20% of the global energy market. Thus, the OECD nations, China, and Belarus are the top oil users.

Economic sanctions imposed on Russia have a substantial influence on the global economy. The negative implications impacted nations that launched the limitations, among others.

Keywords: *sanctions, energy resources, energy market, oil, gas, coal, embargo*

DOI 10.54092/9781471069598_12

Russia is one of the world's largest and most important energy producers and exporters, accounting for one-tenth of the global market. The Russian Federation's major source of export income is energy resources. In 2021, the Netherlands ranked first in terms of Russian oil purchases (more than 20% of total), serving as a fuel hub. Germany comes in second with 17% of the vote, followed by Poland and France.[1]

[1] The EU has agreed to a partial embargo on oil from Russia. What does it mean. RBC. [Electronic source]. URL: https://www.rbc.ru/business/31/05/2022/6295c7ae9a7947189b17a92d (accessed on 24.08.22)

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

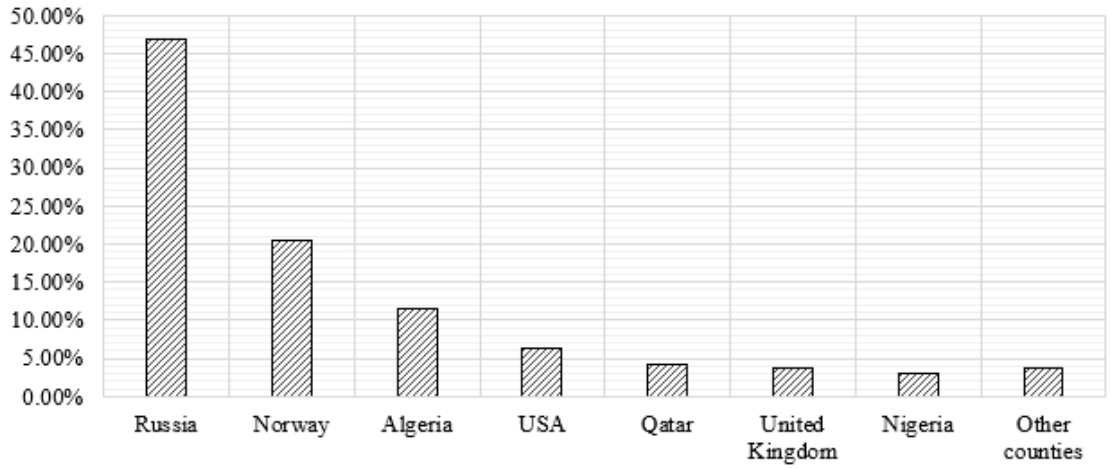


Figure 1: Where does Europe get its gas from? [Electronic source]. URL: https://www.gazeta.ru/politics/2022/04/02/14689651.shtml?updated (accessed on 24.08.22)

High volatility and surging oil prices were an immediate reaction to the uncertainty created by anti-Russian sanctions. At their peak, oil prices reached $140 per barrel, while coal was trading at $460 per ton. Global energy markets are still in a state of flux today.

Gas exchange prices in Europe hit $2400 per thousand cubic meters in August. The price of gasoline had soared past $3,000 by the end of August. In addition, this is not the end: "Gazprom" has proposed raising gas prices in Europe in the winter to $4,000 per thousand cubic meters, a new record. The present high level of gas prices is due to a supply shortfall of both pipeline gas and LNG.

These costs are backed by the increased demand produced by the European heat wave, which has resulted in rivers drying up and fuel transportation issues. For example, the low water level of the Rhine, Western Europe's most significant river for transportation, has rendered many boats' navigation unprofitable. River shallowing also impedes hydropower generation and the cooling of nuclear power plants. Nuclear and hydroelectric output fell by 12% and 20%, respectively, while gas-fired energy generation increased by 4%.[2]

Due to limited supplies from Russia, the German government inked a deal with the country's top energy corporations on August 16 to import liquefied natural gas through two new terminals. However, competition from corporations from Asia, where LNG demand is increasing due to the heat wave, might stymie this.[3] Due to a lack of LNG vessels, the strategy is also on the edge of collapse.

[2] Gas prices are rising: where's the limit? PSB analytics. [Electronic source]. URL: https://t.me/macroresearch/5857 (accessed on 24.08.22)

[3] «Gazprom» considers gas prices in Europe in winter above $4000 per 1000 cubic meters possible. Forbes. [Electronic source]. URL: https://www.forbes.ru/biznes/474473-gazprom-dopustil-cenu-gaza-v-evrope-zimoj-vyse-4000-za-1000-kubometrov (accessed on 24.08.22)

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

Because Russian gas supplies are restricted, the United States cannot offer fuel for the domestic market.

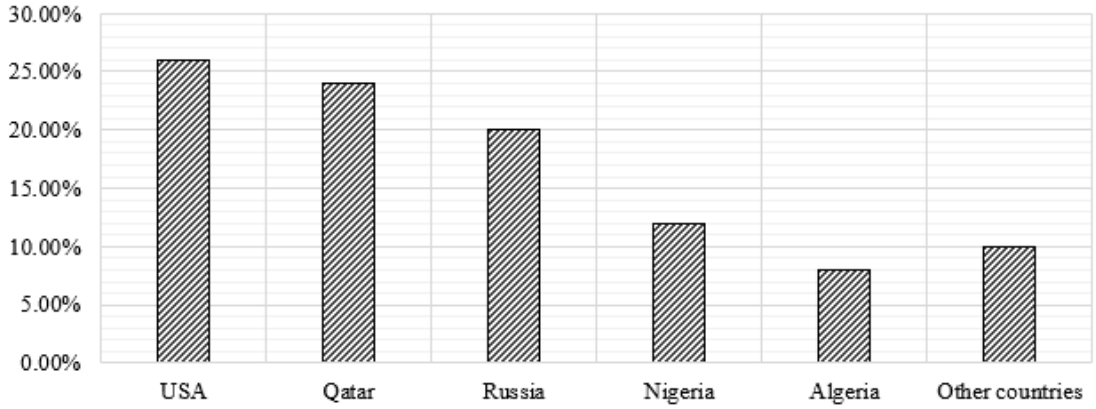


Figure 2: Major LNG suppliers (for 2021), % of total EU and UK LNG supply. [Electronic source]. URL: https://www.gazeta.ru/politics/2022/04/02/14689651.shtml?updated (accessed on 24.08.22)

Windless and hot weather, as well as river shallowing, make it impossible to supply coal as an alternative to gas. The railroads are overcrowded and undercapitalized.

It is also known that Europe has begun to draw on winter gas supplies stored in storage facilities. Several EU businesses (Engie, Uniper, Eni, OMV) have already observed reductions in Russian gas deliveries via «Nord Stream.» «Gazprom» warned of a more than halving of gas flow through «Nord Stream» due to delays in Siemens turbine maintenance.[4] Gas reserves in European storage facilities began to decline in June 2022, which should not have happened during the pumping period. Due to a decline in Russian supply, Germany, Austria, Italy, and France are now compelled to deplete winter gas reserves. Germany plans to enhance its gas savings as officials prepare for a harsh winter.[5]

More over half of Russian oil exports went to OECD nations, with China accounting for nearly a quarter.

The United States and the United Kingdom were the first to announce a halt on Russian oil and gas purchases. The US Senate decided in April 2022 to completely ban Russian energy imports. The United States also intends to minimize Russian uranium imports by purchasing from domestic manufacturers.[6]

[4] The fourth company in the EU reported a reduction in gas supplies from Russia. RBC. [Electronic source]. URL: https://www.rbc.ru/business/16/06/2022/62aaed1c9a7947193f9c6b91(accessed on 24.08.22)

[5] German authorities decided to increase gas saving due to the threat of «hard winter». RBC. [Electronic source]. URL: https://www.rbc.ru/politics/19/06/2022/62aee7409a79475c4a3ccf98?from=materials_on_subject (accessed on 24.08.22)

[6] Bloomberg found out about the U.S. plans to replace Russian uranium with American uranium. Forbes. [Electronic source]. URL: https://www.forbes.ru/biznes/468103-bloomberg-uznal-o-planah-ssa-zamestit-rossijskij-uran-

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

Statistical statistics, however, demonstrate the opposite tendency, despite these nations' stated vows to lessen their reliance on Russian energy supplies. For example, Russia's proportion of total British imports increased from zero in 2017 to 6% by the end of 2021.

The US buys around 8% of Russian oil, while the UK imports 6%. From March 19 to 25, 2022, the United States raised its imports of Russian oil by 43% compared to the previous week. The value of Russian oil shipments to the United States in 2021 will be more than $17.6 billion.

Russian coal exports to the UK have also increased. Although Russian coal accounted for 27% of UK coal imports in 2016, that ratio is expected to rise to 43% by 2021. Despite this, the nation intends to leave Russian coal by the end of this year.

Along with the United States, the European Parliament has campaigned for a comprehensive ban on Russian imports of oil, coal, nuclear fuel, and gas.

Russian oil imports are diminishing, which indicates that output will fall as well. Thus, the Ministry of Finance forecasted in April that if EU members refuse Russian imports, oil production would fall by 17% by the end of 2022. Nonetheless, Russia's decreased production and export of oil and oil products will be offset by higher energy resource costs.[7]

The sanctions' short-term impact will be more than compensated by higher prices, but Russia's medium-term financial losses will be enormous, amounting to 30 to 50 billion dollars. The BCS Global Market Analysis Department contributed this information.[8]

Russia exports around 25% of its oil to the EU and 40% of its gas. Russian coal accounts for around half of all EU coal purchases.

Imports of Russian oil and oil products reached 71 billion euros in value by the end of 2021. Supplies are expected to fall by 65 billion euros by the end of 2022.[9]

With the aid of coal, Europe is attempting to lessen its reliance on Russian gas supplies. However, its cost has risen as well. The return to coal use arises against the backdrop of the EU's promises of decarbonizing the economy and achieving carbon neutrality by 2050.

It is considered that it is possible to forsake Russian energy resources by diversifying gas supply, hastening the shift to renewable forms of gas, and employing other energy sources. The European Union intends to cut gas usage by 67% by the end of 2022 and totally phase out Russian supply by 2030.

Nuclear power is becoming more important in the context of energy scarcity. A number of European nations who were formerly opposed to nuclear power are intending to return to it as well.

amerikanskim?utm_source=vk&utm_medium=social&utm_campaign=ssha-namereny-zakupat-uran-napryamuyu-u-am (accessed on 24.08.22)

[7] Siluanov allowed to reduce oil production in Russia by 17%. RBC. [Electronic source]. URL: https://www.rbc.ru/economics/27/04/2022/62695e0a9a794718a659fab6 (accessed on 24.08.22)

[8] BCS GM estimates Russian budget losses at $30-50 billion in 2023 because of the EU oil embargo. Investing.com [Electronic source]. URL: https://ru.investing.com/news/economy/article-2159394 (accessed on 24.08.22)

[9] The EU has imposed an oil embargo sanctions package against Russia. What does it include? RBC. [Electronic source]. URL: https://www.rbc.ru/economics/03/06/2022/629a15e09a7947323cc625f1 (accessed on 24.08.22)

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

Nuclear power facilities contribute just approximately 10% of global electricity output. The main producers of nuclear energy are the United States, China, and France.

Furthermore, Europe is considering altogether refusing to buy Russian gas owing to a refusal to pay in rubles. Some nations, however, notably Hungary, have already agreed to the revised payment arrangements.

The United States, whose LNG producers are vying for a substantial piece of the European market, might be an alternative hydrocarbon supplier for Europe. The United States and the European Union secured a deal in late March to provide at least 15 billion cubic meters of LNG in 2022. LNG supplies from the United States are likely to expand in the future, but increasing supply fast without the requisite infrastructure is impossible. By August, US LNG supplies had surged by 75%.

The US State Department permitted Italian oil giant Eni SpA and Spanish oil business Repsol SA to deliver Venezuelan oil to Europe as early as July to compensate for Russian oil that Europe refuses. However, this had little impact on the oil market.[10]

In addition, Qatar, Algeria, Saudi Arabia, and Kuwait might become potential hydrocarbon suppliers to Europe. However, OPEC declared that it would be impossible to fully compensate for the decline in Russian oil supply to the global market. South American and South African nations may be explored as alternative coal suppliers to Europe, but due to substantial logistical costs and strong demand, they are unlikely to deliver an acceptable price.

As a result, there is no viable alternative to Russian energy supplies in the medium term, which may bring Europe's energy security into doubt. In this context, remarks regarding the suspension of Russian energy supply cause price increases on global markets.

Fuel costs are now rising sharply in the United States, Canada, and Europe. As a result, the United States considers the situation in 2022 to be the worst in the previous fifty years. The collapse of the US oil sector has become one of the country's most challenging challenges in recent years. In March, the average price of fuel per gallon (3.8 liters) was more than $4.

The EU has imposed its sixth round of measures, which includes an oil embargo. The most crucial elements concern the prohibition on supplying Russia with oil and assisting its transfer to third nations. This year's matching legal acts were released on June 3rd. It should be noted that the previous sanctions package was implemented just under two months ago, on April 8.

The restriction on Russian marine oil shipments to the EU affects more than 60% of the Russian Federation's oil imports, drastically reducing the state's source of financing. Pipeline exports, however, are an exception, and the restriction does not apply to them. The pipeline provided around one-third of all crude to the EU. Poland and Germany have proclaimed a full refusal to provide Russian oil, including pipeline and seaborne deliveries. As a result, only the Druzhba pipeline will be

[10] U.S. to let Eni, Repsol ship Venezuela oil to Europe for debt. Reuters. [Electronic source]. URL: https://www.reuters.com/business/energy/exclusive-us-let-eni-repsol-ship-venezuela-oil-europe-debt-sources-2022-06-05/ (accessed on 24.08.22)

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

exploited to transfer oil to the EU, which delivers one-tenth of the total raw material volume. The embargo will not impact crude oil transported from Russia to Poland, Germany, the Czech Republic, or Hungary via this route.

The restrictions, which include a ban on marine oil shipments, will have a significant impact on Russia's global energy trade. The embargoes imposed by the United States and the European Union, as well as Poland's and Germany's denial of oil pipeline fuel, will lower Russia's income from oil and oil product exports by nearly half, or $86 billion.[11] Russia is being obliged to begin reorienting itself toward the Asian market, where oil is supplied at a discount. Many Asian customers were drawn in by the reduction. It was enacted to compensate for the possibility of a US embargo of Russian oil supply by sea.[12] India and China have expanded their purchases of Russian fuel; by early summer, Russia was sending more than 50% more oil to China than previously, surpassing Saudi Arabia as the country's top supplier.

Now Russia must evaluate whether it is worth attempting to maintain pre-sanction levels of energy output by exporting them at a lower price, or whether it is safer to reduce production by 20–30%. The EU oil embargo suggests a period of change. As a result, one-time agreements will be permitted until December 5, 2022. Such transactions will be permitted for oil products until February 5, 2023.

One of the requirements is that EU nations may continue to acquire Russian petroleum products, but only if the petroleum products were manufactured in another country and do not belong to Russian citizens.

There are other exclusions for certain nations. Bulgaria, for example, was permitted to receive Russian oil by sea under contracts signed before June 4. The option of acquiring Russian vacuum gasoil remains open to Croatia. Furthermore, the Czech Republic retains the option of importing diesel fuel manufactured from Russian oil into EU members.

A ban on Russian energy carriers will have major economic and social repercussions throughout Europe, as well as disrupt supply systems. Several firms have already reduced or ceased output, increasing unemployment.

Thus, gasoline and power price hikes, as well as spurred inflation, might lead to additional increases in the cost of living in the EU and the US, as well as mass unemployment.

In the current context, Russia has opportunities in the Asia-Pacific area. For example, the fuel and energy complex accounts for more than a third of Russia-China trade and economic turnover.

In terms of the gas market, pipeline gas might expand supply to the Asian area. In 2021, for example, Gazprom sent around 10 billion cubic meters of gas to China via the Power of Siberia pipeline.

[11] The EU has agreed to a partial embargo on oil from Russia. What it means. RBC. [Electronic source]. URL: https://www.rbc.ru/business/31/05/2022/6295c7ae9a7947189b17a92d (accessed on 24.08.22)

[12] Expert explained the discount on Urals oil. Prime. [Electronic source]. URL: https://1prime.ru/energy/20220330/836540020.html (accessed on 24.08.22)

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

According to the Institute of International Finance, between 20 and 40% of the oil that was originally destined for European nations would be rerouted to China by 2022.[13]

As a result, the long-term absence of Russian energy resources from the global market might have disastrous effects for the global economy. A worldwide economic downturn is unavoidable if the majority of Russia's energy exports are not available on the market for the rest of 2022.

It is hard to withdraw from Russian oil and much less gas quickly, and even a moderate fall in their market share would result in a severe deterioration in the quality of living in many nations. There is no question that energy exports to the West will fall, but only gradually. Russian oil and gas production will be redirected to the domestic market and the East.

References

1. The EU has agreed to a partial embargo on oil from Russia. What does it mean. RBC. [Electronic source]. URL: https://www.rbc.ru/business/31/05/2022/6295c7ae9a7947189b17a92d (accessed on 24.08.22)

2. Gas prices are rising: where's the limit? PSB analytics. [Electronic source]. URL: https://t.me/macroresearch/5857 (accessed on 24.08.22)

3. «Gazprom» considers gas prices in Europe in winter above $4000 per 1000 cubic meters possible. Forbes. [Electronic source]. URL: https://www.forbes.ru/biznes/474473-gazprom-dopustil-cenu-gaza-v-evrope-zimoj-vyse-4000-za-1000-kubometrov (accessed on 24.08.22)

4. The fourth company in the EU reported a reduction in gas supplies from Russia. RBC. [Electronic source]. URL: https://www.rbc.ru/business/16/06/2022/62aaed1c9a7947193f9c6b91(accessed on 24.08.22)

5. German authorities decided to increase gas saving due to the threat of «hard winter». RBC. [Electronic source]. URL: https://www.rbc.ru/politics/19/06/2022/62aee7409a79475c4a3ccf98?from=materials_on_subject (accessed on 24.08.22)

6. Bloomberg found out about the U.S. plans to replace Russian uranium with American uranium. Forbes. [Electronic source]. URL: https://www.forbes.ru/biznes/468103-bloomberg-uznal-o-planah-ssa-zamestit-rossijskij-uran-amerikanskim?utm_source=vk&utm_medium=social&utm_campaign=ssha-namereny-zakupat-uran-napryamuyu-u-am (accessed on 24.08.22)

[13] EU introduced a package of sanctions against Russia with an oil embargo. What is included in it. RBC. [Electronic source]. URL: https://www.rbc.ru/economics/03/06/2022/629a15e09a7947323cc625f1 (accessed on 24.08.22)

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

7. Siluanov allowed to reduce oil production in Russia by 17%. RBC. [Electronic source]. URL: https://www.rbc.ru/economics/27/04/2022/62695e0a9a794718a659fab6 (accessed on 24.08.22)

8. BCS GM estimates Russian budget losses at $30-50 billion in 2023 because of the EU oil embargo. Investing.com [Electronic source]. URL: https://ru.investing.com/news/economy/article-2159394 (accessed on 24.08.22)

9. The EU has imposed an oil embargo sanctions package against Russia. What does it include? RBC. [Electronic source]. URL: https://www.rbc.ru/economics/03/06/2022/629a15e09a7947323cc625f1 (accessed on 24.08.22)

10. U.S. to let Eni, Repsol ship Venezuela oil to Europe for debt. Reuters. [Electronic source]. URL: https://www.reuters.com/business/energy/exclusive-us-let-eni-repsol-ship-venezuela-oil-europe-debt-sources-2022-06-05/ (accessed on 24.08.22)

11. The EU has agreed to a partial embargo on oil from Russia. What it means. RBC. [Electronic source]. URL: https://www.rbc.ru/business/31/05/2022/6295c7ae9a7947189b17a92d (accessed on 24.08.22)

12. Expert explained the discount on Urals oil. Prime. [Electronic source]. URL: https://1prime.ru/energy/20220330/836540020.html (accessed on 24.08.22)

13. EU introduced a package of sanctions against Russia with an oil embargo. What is included in it. RBC. [Electronic source]. URL: https://www.rbc.ru/economics/03/06/2022/629a15e09a7947323cc625f1 (accessed on 24.08.22)

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

UDC 339.138

Yuryeva A.V., ZHdanovskiy S.L. Production marketing as one of the ways of the efficient development leading branches of the economy on ural in system of the market relations (on concrete example)

Yuryeva Alyona Victoriana
Candidate of the sociological sciences,
teacher of the college
ZHdanovskiy Stanislav Leonidovich
Teacher to first category, college
Branch «National exploratory nucleus university NIYAU «MYTHS», college

Abstract. *In given article we tried to consider the notion of production marketing and possibility of his (its) using in геологоразведочных work. As well as us was made attempt to analyses specifics of the development geologic prospecting works; system of the modern market relations.*
Keywords*: marketing, production, geology, development, geologic prospecting works*

DOI 10.54092/9781471069598_20

Marketing - a type to human activity and presents itself process, by means of which control the production, exchange to product (goods) so as these goods or product were necessary and each member society and separate his(its) group[6,33] (Drawing 1).

Drawing 1. Photo student, studying production marketing

The Main premises of the appearance and developments of modern industrial marketing are: development of the market relations and improvement legislation lea dinging countries of the world, scientifically- technical, technological progress, abetting international division of labor, growing of the competitive fight. All this has served the reason of the shaping theoretical and practical основ of the science, economic discipline of production marketing [7, 12].

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

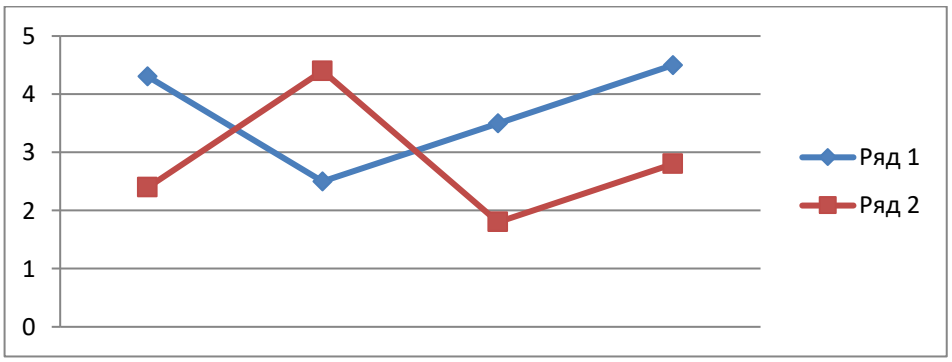
In marketing, but in industrial marketing main object attention specifically and studies, and if possible management are a deal, requests, exchange, demand, the market , in its article we have solved to consider, possible use industrial marketing in geological work. A for this we shall first consider what place occupies mineral- source of raw materials in economy Rossi as a whole (Drawing 2).

Drawing 2. Photo about importance of the using of industrial marketing in process of the geological developments

Studying literature, we see that in economy of the Russia mineral-raw materials sector occupies one of the central places that conditions high value of the condition mineral-raw materials base, speakers of her(its) development[1,56]. One of the most important problems at present is a sharp fall rate reproduction mineral-raw materials base: occurs the firm reduction of the annual increase reconnoitered spare majority type useful fossilized in contrast with volume of their mining. In safe this is connected with change the order of the financing geological work if earlier state financed beside 80-85% search of the work, that today from state budget is financed only stage of the regional geological study of the depths that forms 8-10% from the whole works amount[5,120-122] (Drawing 3).

Drawing 3. Mineral source of raw materials Ural

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru



Drawing 4. Graph of the change the financing the geological developments

For leaving from created crisis situation in mineral- raw sector necessary attraction new economic technology, in geological search branch [2, 34]. The Absence of the interest investor, sponsor, but even possible say the state, to embedding the facilities in geological search of the work in as a whole is explained by probabilistic nature of the geological studies, high financial and the other risk. In this connection introduces actual consideration of the methods of geological production management, study of the row of the questions, in accordance with estimation geological production on each stage geological search work, estimation of the possible damage in the event of was not confirmed findings useful fossilized, industrial analysis of the change to probability of the geological work depending on difficulties of the geological construction finding useful fossilized (Drawing 5).

Drawing 5. Photo to particularities and difficulties of the undertaking the exploring and mining useful fossilized

However problem of the economic estimation in geological search work remains bad studied. The most acceptable method of geological production management for investor, sponsor and state is, on our glance, using of industrial marketing in established condition of market economies, t. k. industrial marketing - efficient management motion goods- material valuables from

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

gaining branches to processing and consuming, directed on constant renovation goods production-industrial purpose, technologies of their fabrication , and orientation on requests of the prospective clients[2,56-57] (Drawing 6).

Drawing 6. Photo, reflecting difficulties of the using of production marketing in mining useful fossilized on Ural

The System geological work, we think that can consider as branch industrial production, since GEOLOGORAZVEDOCHNYE WORK - a complex different special geological and the other work, which are produced for finding and preparation to industrial mastering findings useful fossilized useful fossilized. Include the study of the regularities of the accommodation, conditions of the formation, particularities of the construction, material composition findings useful fossilized useful fossilized for the reason their forecasting's, searching for, determinations of the conditions finding, preliminary and detailed exploring, geological-economic estimation and preparation to industrial mastering[5,67-69]. Coming from above stated we can say that given branch industrial production presents from itself complex of the branches, directing flows goods and resource as inwardly most branches, so and outside of her(it). Any industrial complex and, certainly, geological search can disintegrate on three directions:

--- receptions cheese or half-finished item from gaining branches, their using, providing the branches by capital equipment and auxiliary material;

--- selling the equipment, material and consumer gooses individual consumer, state, industrial and not industrial organization and exporter;

--- exchange inwardly the most processing or gaining industry half-finished item, nodes and unit, auxiliary and ready material and equipment between separate enterprise [7,77-80] (Drawing 7).

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

Drawing 7. Photo to particularities of the work in branches of the development of the mining useful fossilized

The General purposes geological work is scientifically-motivated, even and economic efficient provision public facilities reconnoitered spare useful fossilized, study of the ways their full, complex and economic rational taking in process of the usages from finding useful fossilized with account guard surrounding ambiences. The General principle geological work - complex conduct of the work i.e. alongside with searching for and exploring main type useful fossilized are also studied all accompanying mineral components, are realized possibility to their salvaging, are executed water geological , mountain technological, engineering-geological and the other studies, are studied natural-climatic, geographer-economic, social-economic, geological -economic conditions of the mastering place of the generation useful fossilized [5,97-99] (Drawing 8).

Drawing 8. Photo, reflecting main principle of the development useful fossilized- «Complex conduct of the work»

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

In composition geological work enter regional and large-scale geological, making the cards of the finding useful fossilized, geophysical, geochemical , aerospace and the other removal, different types search, geological search work and engineering-geological work, analyst- mineralogy -technological, geology -economic, scientifically-thematic and the other studies. One result geological work are counted and become firmly established in accordance with the established order spares useful fossilized, is produced quantitative estimation their forecasting resource. In composition geological work enter also facilities, rendered by geological service of the country branch public facilities on study of the depths for construction and usages of the underground buildings, for necessities of the agriculture, engineering-geological study separate region, preparing the structures for underground findings bad material and departure production, unset of the sewages etc. [5, 102-103] (Drawing 9).

Drawing 9. Mnogogrannosti knowledge's in undertaking the geological developments

The Geological study perspective region and discovered formation useful fossilized

useful fossilized is conducted consecutively, with all more full revealing the particularities their geological construction, is blazed-geological particularities and quality useful fossilized.

Scientifically-thematic studies in the field of geological the work are directed on the most further development general theoretical problems of the formation generations useful fossilized useful fossilized, mainly on clarification their structured-morphological particularities, defining methods of the exploring generations useful fossilized, motivation to optimum density to exploratory network for finding useful fossilized different types, determination degree to validity reconnoitered

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

spare different category, improvement of the methods of the discovery future mineral resource, making the methods geology - economic estimation findings useful fossilized on all stages geological search work, system development of the factors geological and cost-performance geological work [5,145-147] (Drawing 10).

Drawing 10. Photo to particularities under native forming the generations useful fossilized on Ural

From above said, we see that geological of the work - very complex layered mechanism so, on our glance, using of production marketing in geological search work can play far from last role in development them on economic market.

Additionally, industrial marketing follows the following principle:

--- rejects the way of the development to industry, under which consumer obtrude goods, the most profitable and suitable most producer;

--- producer must be constantly uncontested its product, call in question his (its) consumer characteristic and on this base constantly to update the production;

--- not to be afraid their own rival and boldly look him in person, study the toolbox of marketing and marketing network, which they use;

--- constantly take into account all change the external ambience.

Following data principle, possible will successfully develop in condition modern market [7, 88] (Drawing 11).

Drawing 11. Plan development Photo of the geological work with account of industrial marketing

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

Industrial marketing - possible name the system to organizations to whole activity to modern corporation on development, production, marketing to product, presentation of the services or work execution to achieve monopoly high arrived on base deep and all-round knowledge market and real request and need state and society[7,91].

Marketing activity, on our glance, will be able to provide the adjustment an geological search work to changing economic situation (the incomes, the price, created situation) and requirements of the consumer - a state, as well as will help to adapt to demand for useful fossilized at the moment and in necessary amount since in modern epoch requests state grow, become individual, consequently, the market become varied on its structure. The Demand for useful fossilized always was and will much high, but also money embedding on mining useful fossilize must correspond to the demand. So it is necessary to use the new economic methods, which will promote the stable development and geological work.

Coming from above stated, we can come to conclusion that production marketing shall use in geological activity of the branches since he is one of the type of branch marketing, but geological search production possible to name the most important branch to not only geologies, but also economy to Russia as a whole.

And applicable given type of marketing in development given branches possible to obtain stable operation her (it) on modern economic market (Drawing 12).

Drawing 12. Photo result using new economic technology in mining useful fossilized on Ural

References

1. The Arbat A. Mineral-source of raw materials country // Economist, - 2019. - 6.

2. Astahov A.S., Krasnyanskiy G.L. The Economy and management mountain production: Ucheb. posob. For high school: M.: the Publishers to Academies mountain nauk. - Kn. 1: Bases of the economy mountain production, 2017. S.346.

3. Bakanov M.I., SHeremet A.D. The Theory of the analysis to economic activity: Uchebnik. - M.: Finance and statistics, 2020. S. 272.

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

4. White Z.P. Amakinskaya geological expedition. M.: SOREK, 2019. S.112.

5. Grabchak L.G., Brylov S.A., Komaschenko V.I. Undertaking is blazed-exploratory productions and bases of the development place birth useful fossilized: Textbook for vuzov. - M.: Depths, 2018. S.427.

6. Kotler F. Bases of marketing. SPB: JC «Koruna», AOZT «Litera plus», 2017. S.457.

7. Mimett S. William I.D. Industrial marketing: in principal new approach to decision of the marketing problems. Per. with engl. -SPB.: Piter, 2020. S.406.

8. Mandrichko T.M. The Analysis of the financial condition enterprise: Usher. Possible/GACMIZ. - Krasnoyarsk, 2021

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

SECTION 2. PEDAGOGY, LANGUAGE AND CULTURE IN EDUCATION

UDC 37

Auezova G.K., Aralbay K.Zh. Activities for promoting speaking in the classroom

Auezova Gulziya Kenzhebekovna
School-gymnasium № 9
Aralbay Kuralay Zhailhankyzy
English teachers
Kyzylorda, Kazakhstan

Abstract. *Speaking is a crucial part of second language learning and teaching. Despite its importance, for many years, teaching speaking has been undervalued and English language teachers have continued to teach speaking just as a repetition of drills or memorization of dialogues. However, today's world requires that the goal of teaching speaking should improve students' communicative skills, because, only in that way, students can express themselves and learn how to follow the social and cultural rules appropriate in each communicative circumstance. In order to teach second language learners how to speak in the best way possible, some speaking activities are provided below, that can be applied to ESL and EFL classroom settings, together with suggestions for teachers who teach oral language.*

Keywords: *critical thinking, communicative skills, classroom interaction, teaching speaking, cooperative learning, communicative language*

DOI 10.54092/9781471069598_29

Now many linguistics and ESL teachers agree on that students learn to speak in the second language by "interacting". Communicative language teaching and collaborative learning serve best for this aim. Communicative language teaching is based on real-life situations that require communication. By using this method in ESL classes, students will have the opportunity of communicating with each other in the target language. In brief, ESL teachers should create a classroom environment where students have real-life communication, authentic activities, and meaningful tasks that promote oral language. This can occur when students collaborate in groups to achieve a goal or to complete a task.

Activities To Promote Speaking:

Discussions. After a content-based lesson, a discussion can be held for various reasons. The students may aim to arrive at a conclusion, share ideas about an event, or find solutions in their discussion groups. Before the discussion, it is essential that the purpose of the discussion activity is set by the teacher. In this way, the discussion points are relevant to this purpose, so that students do not spend their time chatting with each other about irrelevant things. For example, students can become involved in agree/disagree discussions. In this type of discussions, the teacher can form groups of students, preferably 4 or 5 in each group, and provide controversial sentences like “people learn best when they read vs. people learn best when they travel”. Then each group works on their topic for a given time period, and presents their opinions to the class. It is essential that the speaking

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

should be equally divided among group members. At the end, the class decides on the winning group who defended the idea in the best way. This activity fosters critical thinking and quick decision making, and students learn how to express and justify themselves in polite ways while disagreeing with the others. For efficient group discussions, it is always better not to form large groups, because quiet students may avoid contributing in large groups. The group members can be either assigned by the teacher or the students may determine it by themselves, but groups should be rearranged in every discussion activity so that students can work with various people and learn to be open to different ideas. Lastly, in class or group discussions, whatever the aim is, the students should always be encouraged to ask questions, paraphrase ideas, express support, check for clarification, and so on.

Role Play. One other way of getting students to speak is role-playing. Students pretend they are in various social contexts and have a variety of social roles. In role-play activities, the teacher gives information to the learners such as who they are and what they think or feel. Thus, the teacher can tell the student that "You are David, you go to the doctor and tell him what happened last night, and..." (Harmer,1984)

Simulations. Simulations are very similar to role-plays but what makes simulations different than role plays is that they are more elaborate. In simulations, students can bring items to the class to create a realistic environment. For instance, if a student is acting as a singer, she brings a microphone to sing and so on. Role plays and simulations have many advantages. First, since they are entertaining, they motivate the students. Second, as Harmer (1984) suggests, they increase the self-confidence of hesitant students, because in role play and simulation activities, they will have a different role and do not have to speak for themselves, which means they do not have to take the same responsibility.

Information Gap. In this activity, students are supposed to be working in pairs. One student will have the information that other partner does not have and the partners will share their information. Information gap activities serve many purposes such as solving a problem or collecting information. Also, each partner plays an important role because the task cannot be completed if the partners do not provide the information the others need. These activities are effective because everybody has the opportunity to talk extensively in the target language.

Brainstorming. On a given topic, students can produce ideas in a limited time. Depending on the context, either individual or group brainstorming is effective and learners generate ideas quickly and freely. The good characteristics of brainstorming is that the students are not criticized for their ideas so students will be open to sharing new ideas.

Storytelling. Students can briefly summarize a tale or story they heard from somebody beforehand, or they may create their own stories to tell their classmates. Story telling fosters creative thinking. It also helps students express ideas in the format of beginning, development, and ending, including the characters and setting a story has to have. Students also can tell riddles or jokes. For instance, at the very beginning of each class session, the teacher may call a few students to tell short riddles or jokes as an opening. In this way, not only will the teacher address students' speaking ability, but

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

also get the attention of the class.

Interviews. Students can conduct interviews on selected topics with various people. It is a good idea that the teacher provides a rubric to students so that they know what type of questions they can ask or what path to follow, but students should prepare their own interview questions. Conducting interviews with people gives students a chance to practice their speaking ability not only in class but also outside and helps them becoming socialized. After interviews, each student can present his or her study to the class. Moreover, students can interview each other and "introduce" his or her partner to the class.

Story Completion.This is a very enjoyable, whole-class, free-speaking activity for which students sit in a circle. For this activity, a teacher starts to tell a story, but after a few sentences he or she stops narrating. Then, each student starts to narrate from the point where the previous one stopped. Each student is supposed to add from four to ten sentences. Students can add new characters, events, descriptions and so on.

Reporting. Before coming to class, students are asked to read a newspaper or magazine and, in class, they report to their friends what they find as the most interesting news. Students can also talk about whether they have experienced anything worth telling their friends in their daily lives before class

- Here are some suggestions for English language teachers while teaching oral language: Provide maximum opportunity to students to speak the target language by providing a rich environment that contains collaborative work, authentic materials and tasks, and shared knowledge.
- Try to involve each student in every speaking activity; for this aim, practice different ways of student participation.
- Reduce teacher speaking time in class while increasing student speaking time. Step back and observe students.
- Indicate positive signs when commenting on a student's response.
- Ask eliciting questions such as "What do you mean? How did you reach that conclusion?" in order to prompt students to speak more.
- Provide written feedback like "Your presentation was really great. It was a good job. I really appreciated your efforts in preparing the materials and efficient use of your voice..."
- Do not correct students' pronunciation mistakes very often while they are speaking. Correction should not distract student from his or her speech.
- Involve speaking activities not only in class but also out of class; contact parents and other people who can help.
- Circulate around classroom to ensure that students are on the right track and see whether they need your help while they work in groups or pairs.
- Provide the vocabulary beforehand that students need in speaking activities.

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

- Diagnose problems faced by students who have difficulty in expressing themselves in the target language and provide more opportunities to practice the spoken language.

Teaching speaking is a very important part of second language learning. The ability to communicate in a second language clearly and efficiently contributes to the success of the learner in school and success later in every phase of life. Therefore, it is essential that language teachers pay great attention to teaching speaking. Rather than leading students to pure memorization, providing a rich environment where meaningful communication takes place is desired. With this aim, various speaking activities such as those listed above can contribute a great deal to students in developing basic interactive skills necessary for life. These activities make students more active in the learning process and at the same time make their learning more meaningful and fun for them.

References

1. Hayriye Kayi. Teaching Speaking: Activities to Promote Speaking in a Second Language. University of Nevada (Nevada,USA http://unr.edu/homepage/hayriyek
2. Celce-Murcia. M. 2001. Teaching English as a Second or Foreign Language (3rd ed). USA: Heinle&Heinle.
3. Chaney, A.L., and T.L. Burk. 1998. Teaching Oral Communication in Grades K-8. Boston: Allyn&Bacon.
4. Baruah, T.C. 1991. The English Teacher's Handbook. Delhi: Sterling Publishing House.
5. Brown, G. and G. Yule. 1983. Teaching the Spoken Language. Cambridge: Cambridge University Press.

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

SECTION 3. PSYCHOLOGY AND EDUCATION

UDC 740

Zak A. Features of creative thinking of younger adolescents in the production of tasks

Zak Anatoly
Leading Researcher, Psychological Institute
of the Russian Academy of Education, Moscow

Abstract. *The article presents a study of the features of creative actions of younger adolescents in the production of plot-logical tasks. As a result of a number of series of individual experiments on the material of problems of varying complexity, four producing approaches were identified: formal, meaningful, standard and non-standard.*

Keywords: *younger teenagers, creative actions, formal, meaningful, standard and non-standard approaches to problem production.*

DOI 10.54092/9781471069598_33

1.Introduction

In a number of studies devoted to the study of productive thinking in children aged 6–12 [5, 6, 7, 8], the features of composing tasks on different educational material were considered. It has been shown that such thinking contributes to a better assimilation of educational material by children. On the basis of mathematics, students were encouraged to independently propose problems related to different types of dependence of quantities; in language lessons, children had the opportunity to come up with examples illustrating certain linguistic rules.

The purpose of the study was to study the features of the productive thinking of fifth-graders (as elementary school graduates) in situations of composing problems on non-educational material, in particular, on the material of plot-logical problems, the solution of which does not require knowledge of mathematical laws and language rules.

The specific purpose of the study was to establish what strategies of productive thinking are used by fifth-graders in situations of composing plot-logical tasks of varying complexity and under different conditions. When planning experiments, "different conditions" meant the following: in some series, children were asked to compose problems, acting on an external plane (for example, to make some notes or drawings while composing, thereby creating visual supports), in other series it was proposed to compose tasks, acting only in the internal, mental plane (in this case, no visual supports could be used).

The hypothesis of the study was that, regardless of the difficulty of the tasks, children compose them less successfully internally than externally. This assumption was based on the provisions of developmental psychology on the periodization of mental development (see, for example, [3, 4]). According to these provisions, the ability to act on the internal, mental plane,

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

operating only with images and representations of objects, is formed in children later than the ability to act on the external, visual plane, operating with specific objects.

The study included four series of individual experiments, in which a total of 87 fifth-graders participated: in the first series there were 21 schoolchildren, in the second - 20 schoolchildren, in the third - 22 schoolchildren, in the fourth - 24 schoolchildren. 2.

2.Materials and methods

To perform the research experiments (the first quarter of the academic year), logical tasks with a plot were developed. Their conditions contained judgments that characterized some of the characters and attributes associated with them, for example: "Misha had a cat Murka" or "Vitya bought a coat in a store." In general, a logical task with a plot can look like this: "Katya and Masha had a cat each: one cat was called Murka, the other was Belka. Murka lived with Katya. What cat lived with Masha?"

There are two judgments in this problem: "Katya and Masha had a cat each: one cat was called Murka, the other was Belka" and "Murka lived with Katya". The ratio of these judgments allows us to conclude: "Masha lived with a Belka" (the features of constructing different types of logical problems with plots are presented in our works, see, for example, [1, 2]).

2.1. First series of experiments

The meaning of the experiments that were carried out in the first series of the study was to study the features of solving and composing problems in situations where children have the opportunity to act visually. To realize this possibility, photographs of two genera were proposed. Some of them showed pupils and pupils of primary and secondary school in variously dressed clothes, they were in different emotional states and performed various actions. The photographs of a different kind were of various things that can be seen on the streets, at home and at school in different lessons.

At the beginning of the experiment, the student had to cope with a test task, in particular: "Sveta and Masha were buying buttons. One of them got red buttons, the other got blue ones. Masha bought red buttons. What buttons did Sveta buy?"

If the student coped with this task, then he was given the opportunity to cope with the first main task, which had the first degree of difficulty, for example: "Vera and Marina jumped high. One of them jumped 50 cm, the other jumped 60 cm. Marina did not jump 50 cm. How high did Vera jump?"

In the event that the task was solved correctly, the student was given the opportunity to cope with the second main task (second degree of complexity), for example:

"Katya, Nina and Natasha chose clothes. One of them liked the trousers, the other - the dress, the third - the jacket. Nina chose a jacket, Natasha did not choose trousers. What did Kate like?"

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

If the student coped with the second main task, then he was given the opportunity to make a conclusion on the material of the third main task (the third degree of complexity), for example: “Borya, Alik, Dima and Vitya read books. One of them was reading a book about pilots, another about tankers, a third about sailors, and a fourth about astronauts. Alik read a book about astronauts, Vitya about sailors, Dima didn't read a book about pilots. What book did Borya read?”

If the student correctly solved the second main problem, he had the opportunity to start composing problems of the first degree of complexity, even if he incorrectly solved the problem of the third degree of complexity.

The student was asked (if he wanted to) to use photographs. In this case, it is easier for students to compose plots for tasks and it is easier to find connections between characters and attributes in the condition.

2.1.1. Characteristics of strategies when composing problems

2.1.1.1 External strategy

In the situation of inventing tasks, schoolchildren acted differently.

The action strategy of the first group of schoolchildren was manifested in the fact that the tasks they composed could not be solved. Four subgroups of students were identified.

One subgroup of schoolchildren composed, for example, the following tasks: “Nina and Vika went in for sports. Some played volleyball, some played basketball. Nina didn't play handball. What sports did Vika do?” Under this condition, the problem can have two answers: "Vika played volleyball" and "Vika played basketball." Thus, students offered incorrectly formulated tasks.

The second subgroup of schoolchildren composed, for example, the following tasks: “Dasha and Galya were planting vegetables. One of them planted cucumbers, the other zucchini. Dasha planted zucchini, Galya planted cucumbers. Who planted tomatoes?” With such a content of the problem, the question posed does not create a problem, since the solution is contained in the condition itself.

The third subgroup of schoolchildren composed, for example, such tasks: “Nadya and Nina sculpted animals from plasticine. One of them sculpted bears, the other hares. Nadia and Nina sculpted different animals. Who did Nadia sculpt?” This problem cannot be solved because the necessary information is missing.

The fourth subgroup of schoolchildren composed correct tasks. However, as one could notice, observing the actions of the children, the production of the conditions of the tasks occurred in them unintentionally, as if by itself. And when the experimenter asked how the invented problem is solved, the students of this subgroup could not answer anything: they did not know the solution.

Consideration of the noted options for composing problems allows us to conclude that children, if you observe their behavior from the outside, come up with problems, demonstrate productive thinking, but, in fact, there is no real composing of problems, but there is its imitation. Such actions are only externally connected with the process of composing tasks, which allows us to

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

conditionally call this strategy external. This is very clearly defined by the fact that these children themselves do not solve invented problems. In other words, they act formally, pursuing the goal of composing something similar to a task: so that there is some kind of condition and some kind of question. Although, in fact (this can be seen from the actions of the subjects of other groups), the goal was set for the children to come up with a problem that can be solved.

2.1.1.2. Internal strategy

The second group of schoolchildren used a strategy associated with composing real, correct problems. Usually they managed to compose two or one such problems. The main difference between the actions of this group of schoolchildren and the previous group is that, as observations show, when composing a problem and finding some variant of the condition, they themselves necessarily checked the problem for the possibility of solving it. Since such actions are internally connected with the process of solving problems, such a strategy was conditionally called internal.

2.1.1.3. Standard Strategy

The third group of schoolchildren used the result-standard (or easier) standard strategy. In this case, the students managed to compose not one or two correctly constructed problems, but three, four or five. At the same time, all tasks were built according to a single scheme, for example:

1) “Vasya and Sasha sang songs. One of them sang loudly, the other softly. Vasya did not sing loudly. How did Sasha sing?”

2) “Galya and Valya drew dresses. One of them painted long dresses, the other - short dresses. Galya did not draw long dresses. What dresses did Valya draw?”

3) “Misha and Petya came up with words starting with the letter “H”. One of them coined the word "thread", the other - the word "sky". Misha did not come up with the word "thread". What word did Peter come up with?”

The single scheme by which these three tasks were devised is as follows: the negative judgment in each task refers to the first character and to the first attribute mentioned; asked in each problem about the second character; at the same time, the question of the task itself refers to the attribute (and not to the character): “How did you sing ...?”, “What dresses ...?”, “What is the word ...?”

2.1.1.4. Non-standard strategy

The fourth group of subjects used an effective non-standard (or easier) non-standard strategy. In this case, the schoolchildren, like the subjects of the previous group, managed to compose not one or two correctly constructed tasks, but three, four or five.

However, unlike the products of the children of the previous group, here all the proposed tasks were different, since they did not have a single construction scheme, for example:

A) “Gena and Dima went to school. One of them was in a raincoat, the other was in a jacket. Gene did not wear a raincoat. What was Dima in?”

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

B) “Tanya and Sveta were preparing breakfast. One of them cooked porridge, the other pancakes. Sveta didn't cook pancakes. What did Tanya cook?”

C) “Sergey and Nikolai were chopping wood. One of them had birch firewood, the other had spruce firewood. Nikolai did not have birch firewood. Who chopped spruce wood?”

The differences between these three tasks are as follows. Firstly, in task A the first character is associated with the first attribute, which is also present in the judgment with negation, while in task B the situation is different: the character present in the judgment with negation appears second in the course of the development of the plot of the problem and is not associated with him. the first, and the second of the named attributes. Secondly, task B asks about an attribute (“What did Tanya cook?”), while task C asks not about an attribute, but about a character (“Who chopped spruce firewood?”).

2.2 Second series of experiments

When solving and composing problems in the second series of experiments, the schoolchildren, just as in the first series, had the opportunity to operate with photographs when searching for plots of problems. It is important to note that in this series (unlike the previous series), only those schoolchildren who coped with the task of the third degree of complexity were asked to compose problems. At the same time, they had to compose tasks of the second degree of complexity.

Just as it was in the first series, the students of the first group applied an external strategy. This led to writing incorrect problems, for example: “Galya, Nadya and Anya wrote letters. Someone wrote the letter "A", someone - "D", someone - "F". Galya wrote the letter "A". Nadia did not write the letter "B". What letter did Anya write?”

In this problem, in the judgment with negation, there is an attribute “letter “B”, which is not in the condition. This does not allow us to solve the problem correctly.

Some of the schoolchildren in this group composed problems with two judgments, including negation, for example: “Katya, Misha and Gena wrote a test and got different grades. Some of the students received "3", someone - "4", someone - "5". Katya didn't get a "3". Misha didn't get a "4". What grade did Gena get?”

Some schoolchildren composed non-problem tasks, since their solution was contained in the proposed condition, for example: “Dima, Vitya and Sasha threw the ball into the ring. Someone hit twice, someone - three times, someone - four times. Dima hit the ring twice, Vitya - three times, Sasha - four times. Who hit the ring three times?”

Schoolchildren of the second group used an internal strategy, since they composed two or one correct problems and solved them themselves.

Schoolchildren of the third group used a standard strategy: they composed three, four or five tasks built according to a single scheme: firstly, in all tasks, the characters occupying the same place in the condition of the tasks are combined with attributes that also occupy the same place; secondly, questions in all tasks are addressed either to a character or an attribute.

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

Schoolchildren of the fourth group used a non-standard strategy, since they managed to compose three, four or five problems constructed in different ways: firstly, in all problems, characters occupying different places in the task conditions are combined with attributes that also occupy different places; secondly, questions in all tasks are addressed either to the character or to the attribute.

2.3 Third series of experiments

When solving and composing problems in the third series of experiments, schoolchildren (unlike the situation in the first and second series) did not have the opportunity to use photographs when developing plots. They had to compose problems without visual supports, in the internal, mental plan, using only oral and written speech.

The opportunity to compose tasks of the first degree of complexity was provided in this series only to those students who coped with the two main tasks. As in the experiments of the previous two series, the participants in this series were divided into four groups depending on their actions. Schoolchildren of the first group used an external strategy when composing tasks, schoolchildren of the second group used an internal strategy, schoolchildren of the third group used a standard strategy, schoolchildren of the fourth group used a non-standard strategy (the characteristics of the noted strategies were disclosed when describing the experiments of the previous two series).

2.4. Fourth series of experiments

When solving and composing problems in the fourth series of experiments, the schoolchildren (just like in the third series) acted without visual support, using oral and written speech. In this series (unlike the previous one), students had to compose tasks of the second degree of complexity. This opportunity was provided only to those students who coped with the tasks of the first, second and third degree of difficulty.

Like all previous series, depending on the strategies used for composing problems, the participants in the experiments of this series were divided into four groups. Schoolchildren of the first group used an external strategy when composing tasks, schoolchildren of the second group - an internal strategy, schoolchildren of the third group - a standard strategy, schoolchildren of the fourth group - a non-standard strategy (as noted, the characteristics of these strategies were disclosed when describing the experiments of all previous series).

3. Results

As a result of individual experiments, data were obtained on the characteristics of the above four strategies for producing tasks of varying complexity and under different conditions (see table).

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

Table

Children who used external, internal, standard and non-standard strategies for producing tasks in each of the four series of experiments (in %)

Task production strategies	Series of experiments			
	First	Second	Third	Fourth
External	9,5	25,0	27,3	33,3
Internal	42,9	40,0	45,5	50.0
Standard	42.9	30.0	22.7	12.5
Non-standard	4.7	5.0	4.5	4.2

Note: * - $p < 0.05$; ** - $p < 0.01$.

An analysis of the data obtained during the production of tasks in four series of experiments (see table) makes it possible to characterize the relationship between each strategy for producing tasks - internal, standard, non-standard - with the complexity of tasks and the conditions for their production (i.e., with composing tasks in a visual and mental plans of action).

In order for the data presented in the table not to cause discrepancies, it should be recalled that the group of children who used the external strategy for producing tasks includes children who composed either unsolvable tasks, or tasks where the answer is formulated in conditions, or tasks that do not have an unambiguous solution, or problems, the solution of which is not known to their author.

The group of children who applied the internal strategy of problem production included only those children who offered one or two solvable problems.

The group of children who used the effective-standard (or standard) strategy for producing tasks includes only those children who offered several (three to five) solvable problems built according to one template.

The group of children who used the effective non-standard (or non-standard) strategy for producing tasks includes only those children who, as in the previous case, offered several (three to five) solvable problems, but (unlike the previous case) constructed according to differently.

To identify the connection between the noted production strategies and the complexity of tasks, it is necessary to compare data on the success of the production of tasks of the first and second degrees of complexity.

First, we compare the effectiveness of the internal strategy for producing tasks in the first and second series, the third and fourth series, as well as in the first and third, second and fourth

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

series. Then, according to the same plan, we correlate the effectiveness of the standard and non-standard strategies for producing tasks.

The number of children (9 people) who used the internal strategy for producing tasks in the first series is 42.9% in relation to all children who composed tasks in this series; the number of children (8 people) who used the internal strategy for producing tasks in the second series is 40.0% in relation to all children who composed tasks in this series (the difference between the noted indicators is statistically insignificant).

The number of children (10 people) who applied the internal strategy of producing tasks in the third series is 45.5% in relation to all children who composed tasks in this series; the number of children (12 people) who used the internal strategy for producing tasks in the fourth series is 50.0% in relation to all children who composed tasks in this series (the difference between the noted indicators is statistically insignificant.

The total number of children (34 people) who used the internal strategy for producing tasks in the first and third series together is 79.1% in relation to all children (43 people) who composed tasks in both series; the total number of children (33 people) who applied the internal strategy of producing tasks in the second and fourth series together is 75.0% in relation to all children (44 people) who composed tasks in these two series (the difference between the noted indicators is statistically insignificant).

Thus, the data presented indicate that the internal strategy for producing tasks does not have a significant relationship with their complexity: tasks of the first degree of complexity (the first and third series) are produced using the internal strategy in a slightly (statistically insignificant) greater number of cases than tasks the second degree of difficulty (second and fourth series).

The number of children (9 people) who used the standard problem composing strategy in the first series, in relation to all children (21 people) who produced problems in this series, is 42.9%; the number of children (6 people) who used the standard task composition strategy in the second series, in relation to all children (20 people) who produced tasks in this series, is 40.0% (the difference between the noted indicators is statistically insignificant).

The number of children (5 people) who used the standard task composition strategy in the third series, in relation to all children (22 people) who produced tasks in this series, is 22.7%; the number of children (3 people) who used the standard task composition strategy in the fourth series, in relation to all children (22 people) who produced tasks in this series, is 12.5% (the difference between the noted indicators is statistically insignificant).

The total number of children (14 people) who used the standard problem composing strategy in the first and third series in relation to all children (33 people) who composed problems in these series is 42.4%; the total number of children (9 people) who used the standard problem composing strategy in the second and fourth series, in relation to all children (44 people) who composed problems in these series, is 20.5% (the difference between the noted indicators is statistically insignificant).

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

The above data indicate that the standard task composition strategy does not have a significant relationship with the complexity of the tasks being composed: tasks of the first degree of complexity (the first and third series) are produced using the standard strategy in a slightly (statistically insignificant) greater number of cases than tasks of the second degree complexity (second and fourth series).

The number of children (1 person) who used a non-standard strategy for composing problems in the first series, in relation to all children (21 people) who produced problems in this series, is 4.7%; the number of children (1 person) who used a non-standard task composition strategy in the second series, in relation to all children (20 people) who produced tasks in this series, is 5.0% (the difference between the noted indicators is statistically insignificant).

The number of children (1 person) who used a non-standard strategy for composing problems in the third series, in relation to all children (22 people) who produced problems in this series, is 4.5%; the number of children (1 person) who used a non-standard task composition strategy in the fourth series, in relation to all children (24 people) who produced tasks in this series, is 4.2% (the difference between the noted indicators is statistically insignificant).

The total number of children (2 people) who used a non-standard strategy for composing problems in the first and third series in relation to all children (33 people) who composed problems in these series is 6.1%; the total number of children (2 people) who used a non-standard strategy for composing problems in the second and fourth series, in relation to all children (44 people) who composed problems in these series, is 4.5% (the difference between the noted indicators is statistically insignificant).

The above data thus indicate that the non-standard task composition strategy does not have a significant relationship with the complexity of the tasks being composed: tasks of the first degree of complexity (the first and third series) are produced using a non-standard strategy in a slightly (statistically insignificant) greater number of cases, than tasks of the second degree of complexity (second and fourth series).

On the whole, the performed analysis shows that all strategies for producing well-formed problems—internal, standard, and non-standard—do not have a significant relationship with the complexity of problems: problems of the first degree of complexity are produced using these strategies in a slightly (statistically insignificant) greater number of cases than tasks of the second degree.

Let us now consider the connection between the strategies under consideration and the conditions for composing problems. To do this, we compare the data on the success of composing tasks in visual and mental plans of action. First, we compare the performance of problem composing with the help of the internal strategy in the first and third series, then in the first and fourth series, and then in the first and second series in relation to the third and fourth series. Further, according to the same plan, we compare the effectiveness of composing problems using standard and non-standard strategies.

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

The number of children (9 people) who used the internal strategy for producing tasks in the first series is 42.9% in relation to all children (21 people) who composed tasks in this series; the number of children (10 people) who used the internal strategy for producing tasks in the third series is 45.5% in relation to all children (22 people) who composed tasks in this series; the number of children (12 people) who used the internal strategy for producing tasks in the fourth series is 50.0% in relation to all children (24 people) who composed tasks in this series (difference between 42.9% and 45.5%, 42.9% and 50.0% are not statistically significant).

The number of children (8 people) who used the internal strategy for producing tasks in the second series is 40.0% in relation to all children (20 people) who composed tasks in this series; the number of children (10 people) who used the internal strategy for producing tasks in the third series is 45.5% in relation to all children (22 people) who composed tasks in this series; the number of children (12 people) who used the internal strategy for producing tasks in the fourth series is 50.0% in relation to all children (24 people) who composed tasks in this series (difference between 40.0% and 45.5%, 40.0% and 50.0% are not statistically significant).

The total number of children who used the internal strategy for producing tasks in the first and second series together (17 people) is 41.5% in relation to all children (41 people) who composed these tasks in both series; the total number of children who used the internal strategy of producing tasks in the third and fourth series together (22 people) is 50.2% in relation to all children who composed these tasks in both series (the difference between the noted indicators is statistically insignificant).

The data obtained indicate that the use of the internal strategy for composing tasks does not have a significant connection with the conditions for producing tasks: tasks in the visual plan are produced using the internal strategy in a slightly (statistically insignificant) greater number of cases than tasks in the mental plan of action.

The number of children (9 people) who used the standard problem composing strategy in the first series is 42.9% in relation to all children (21 people) who wrote problems in this series; the number of children (5 people) who used the standard task composition strategy in the third series, in relation to all children (22 people) who produced tasks in this series, is 22.7%; the number of children (3 people) who used the standard task composition strategy in the fourth series, in relation to all children (24 people) who produced tasks in this series, is 12.5% (difference between 42.9% and 22.7% statistically insignificant, and the difference between 42.9% and 12.5% is statistically significant at $p < 0.01$).

The data presented thus indicate that visual production of tasks of the first degree of complexity (in the first series) is much more successful than mental production of tasks of the second degree of complexity (in the fourth series).

The number of children (6 people) who used the standard task composition strategy in the second series, in relation to all children (20 people) who produced tasks in this series, is 30.0%; the number of children (5 people) who used the standard problem composing strategy in the third series,

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

in relation to all children (22 people) who produced problems in this series, is 22.7%; the number of children (3 people) who used the standard problem composing strategy in the fourth series, in relation to all children (24 people) who produced tasks in this series, is 12.5% (difference between 30.0% and 22.7% , 30.0% and 12.5% are not statistically significant).

The total number of children (15 people) who used the standard problem composing strategy in the first and second series together, in relation to all children (41 people) who composed problems in these series, is 36.6%; the total number of children (8 people) who used the standard problem composing strategy in the third-fourth series together, in relation to all children (44 people) who composed problems in these series, is 18.2%, the difference between the noted indicators is statistically significant (with $p < 0.05$).

The above data thus indicate that the standard strategy for composing problems is essentially related to the conditions for their production.

First, as noted, the production of tasks of the first degree of complexity in visual terms (the first series) is realized significantly (at the one percent significance level) more successfully than the production of tasks of the second degree of complexity in the mental plan (fourth series).

Secondly, the visual production of tasks of the first and second degree of complexity (the first and second series) is realized much more successfully (at a five percent significance level) than the mental production of tasks of the first and second degree of complexity (the third and fourth series).

The number of children (1 person) who used a non-standard strategy for producing tasks in the first series is 4.7% in relation to all children (21 people) who composed tasks in this series; the number of children (1 person) who used a non-standard strategy for producing tasks in the third series is 4.5% in relation to all children (22 people) who composed tasks in this series; the number of children (1 person) who used a non-standard strategy for producing tasks in the fourth series is 4.2% in relation to all children (24 people) who composed tasks in this series (difference between 4.7% and 4.5%, 4.7% and 4.2% are not statistically significant).

The number of children (1 person) who used a non-standard strategy for producing tasks in the second series is 5.0% in relation to all children (20 people) who composed tasks in this series; the number of children (1 person) who used a non-standard strategy for producing tasks in the third series is 4.5% in relation to all children (22 people) who composed tasks in this series; the number of children (1 person) who used a non-standard strategy for producing tasks in the fourth series is 4.2% in relation to all children (24 people) who composed tasks in this series (difference between 5.0% and 4.5%, 5.0% and 4.2% are not statistically significant).

The total number of children who used a non-standard strategy for producing tasks in the first and second series together (2 people) is 4.9% in relation to all children (41 people) who composed these tasks in both series; the total number of children who used a non-standard strategy for producing tasks in the third and fourth series together (44 people) is 4.5% in relation to all

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

children who composed these tasks in both series (the difference between the noted indicators is statistically insignificant).

The data obtained indicate that the use of a non-standard strategy for composing tasks does not have a significant connection with the conditions for their production: tasks in the external plan are produced using a non-standard strategy almost as successfully (or unsuccessfully) as in the internal plan.

4. Conclusion

In general, the analysis of the data presented in the table shows, firstly, that all the strategies for producing well-formed problems—internal, standard, and non-standard—are not related to their complexity; than mentally.

As indicated at the beginning of the presentation of the content of the study, its purpose was to identify the strategies of productive thinking that fifth-graders use in situations of composing logical problems with plots.

As a result of the study, it was found that schoolchildren in these situations use four main strategies.

First, an external strategy is applied, which is characterized by the fact that students offer incorrectly constructed tasks.

Secondly, an internal strategy is applied - in this case, students come up with relatively few (one or two) well-formed problems.

Thirdly, a standard strategy is used, which is characterized by the fact that when applying it, students compose a relatively large number (three, four or five) of tasks that are built correctly, but according to a single scheme.

Fourthly, a non-standard strategy is used, the commonality of which with the standard strategy is that students also compose relatively many (three, four or five) problems, but unlike the previous strategy, all invented problems are different, since there is no single scheme for their construction.

The characteristics of productive thinking strategies identified in the study in situations of composing problems represent new knowledge about the characteristics of productive thinking in younger adolescents. This knowledge meaningfully enriches the provisions of developmental psychology on the resources of creative activity of children of this age.

In further research, it is planned to study the strategies productive thinking, which are used in situations of composing tasks by students of the sixth - ninth grades of the school, as well as determining the nature of the distribution of the four strategies we have identified in the new age contingent.

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

SECTION 4. SCIENCE, TECHNOLOGY AND EDUCATION

UDC 37

Alibekova N.O. Online- lessons on the zoom platform

Alibekova Nurgul Oryntaevna
teacher of Russian language and literature
school № 197 after Abu Kudabayev
Kyzylorda, Republic of Kazakhstan

Abstract. *In recent years, distance learning has become firmly established in the educational environment of the school. One of the platforms for conducting online lessons is Zoom. Based on the experience of using this platform, you can deduce the advantages, disadvantages, and key functions.*
Keywords*: Zoom platform, distance learning, advantages, disadvantages and functions of Zoom.*
DOI 10.54092/9781471069598_45

Complex epidemiological circumstances that unexpectedly happened in the world last year prompted Russian schools to look for alternative forms of full-time education. Distance learning for a certain period came to educational organizations. Teachers began to use all kinds of educational Internet resources in their practice, including educational sites and electronic educational programs. The question arose of choosing a platform with which you can conduct online lessons in real time. The choice fell on the Zoom platform. The development of the capabilities of the wireless interaction service for organizing lessons took place simultaneously with the educational process. The relevance of mastering this platform at the time of distance learning of Kazakhstani schools was very great.

Let's consider the experience of using Zoom in lessons at my school and try to explain the peculiarities of using Zoom as a service for video conferencing with real-time messaging and content transfer. Online you can contact students and their parents, as well as hold pedagogical meetings, etc. Communication between participants using the Zoom platform can be organized from 2 participants to 100. Session duration does not exceed 40 minutes. This is quite enough to conduct a lesson. It is important to remember that teacher registration is required to use such a service. Therefore, the teacher registers and creates his account. To further use the platform, the teacher needs to go to the program under his login and password, and invite the session participants. Students do not need to register. The teacher sends them an invitation to enter the platform, indicating the session time, ID and password. Note that you can work with this service from any electronic device: smartphone, personal computer, laptop or tablet. Based on the experience gained in organizing and conducting lessons based on the Zoom platform, we highlight a number of advantages. Since the platform accommodates up to 100 participants, it was quite possible to hold sessions for both one class and all students in parallel. At the same time, we emphasize that everyone

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

hears and sees each other. At the same time, the function of the organizer or teacher to monitor the participants in the session and turn on or off the sound in time, making it possible to speak out to each other without additional noise interference. Accordingly, if time is required for the teacher, then the sound is turned on only at the reception of the teacher's speech, preventing the participants from turning on the microphone. It is especially important to use this platform opportunity when organizing work with younger students, because they cannot always turn off the microphone themselves. The ability to properly organize work on the platform is very important in order to be heard, you need to monitor the microphones of all participants. Otherwise, the noise and even the slightest rustle of the included microphones distracts the participants. In this case, such a wonderful platform function as chat comes to the rescue. Questions that require prompt resolution, or comments, participants can write in the chat.

The teacher himself, as the organizer of the session, has additional opportunities, for example, to demonstrate presentations, go to sites, show videos and others. However, the right to demonstrate the screen can be transferred to any participant in the session. Of course, one should not forget about the constructive function of the teacher himself, which, as S.V. Tetina notes, "is implemented in the activities of the teacher aimed at designing and planning the content of the learning process" [1, c.166]. We agree with this statement, because only a methodically competent teacher can build a lesson, even in full-time, even in part-time education on any educational platforms.

We emphasize that this platform provides a board function and thus makes the learning process as close as possible to the school format. Lessons - sessions can be recorded both for re-viewing and anchoring material, and for those students who could not be in the session in real time. With this form of organization of the educational process, even the absence of students at the session, will not affect its academic performance, since you can always go back and see the lesson in the entry.

Along with the advantages of using the Zoom platform, disadvantages were highlighted. Unfortunately, not all participants in the session have a camera, i.e. there will be no video - pictures. And this means that not the participant himself, not his teacher will not see each other. Using a personal computer, participants were faced with the fact that there is not always a microphone. And again, a chat comes to the help of the teacher. Of course, this is not entirely convenient, there is nothing better than listening and seeing students. After all, communication through chat lengthens the process of exchanging information, and learning oral speech, for example, in foreign language lessons, becomes impossible if the microphone does not work or is not at all.

However, despite the indicated negative points, it should be noted that working on the ZOOM platform is convenient and understandable. The use of additional options makes training interesting and productive. Having opportunities such as connecting an electronic version of the textbook, or, for example, disabling comments on the screen so that schoolchildren cannot draw on the board. Thus,

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

you can easily control the educational process, focusing on the age of students. To check those present at the session, a chat helps us, i.e. you can see who is registered. Even those students who are shy about asking a question, or they do not have a microphone, then they can write it in a chat. In short, there are different capabilities of the platform so that the training is alive, useful and of high quality. The teacher does not even need to take care that the participants in the session will talk to each other "clogging the air," he only needs to establish permission to chat only with the organizer.

Note the very important function of the platform - the waiting room. In the waiting room there may be outsiders, therefore, the teacher, he also sees the organizer and invites only his own to the session.

The use of the Zoom platform in the educational process has shown an undeniable advantage over other opportunities for interaction with students, even such as email, instant messengers and other digital resources.

References

1. Тетина, С.В. Методическая грамотность как часть профессиональной компетентности учителя иностранного языка / С.В. Тетина // Научное обеспечение системы повышения квалификации кадров: научно-теоретический журнал. – 2016. - №3 (28). – С.164 - 169.

2. Zoom.us: Видеоконференции, веб-конференции, вебинары, демонстрация экрана: сайт.- URL: https://zoom.us/

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

UDC 37

Evtushenko E.A. The role of biological knowledge in the formation of professional competencies of students of specialty 36.02.01 Veterinary Medicine

Роль биологических знаний в формировании профессиональных компетенций студентов специальности 36.02.01 Ветеринария

Yevtushenko Elena Aleksandrovna
Teacher of GBPOU RO "Oktyabrsky agrarian and Technological College", Rostov region
Евтушенко Елена Александровна
Преподаватель ГБПОУ РО «Октябрьский аграрно-технологический техникум», Ростовская область

Abstract. *This article is devoted to the main problem of vocational education – the formation of general and professional competencies of a graduate. An important role in the formation of basic competencies for future veterinary paramedics is played by the general education discipline "Biology", which is a profile.*
Keywords: *professional competencies, general competencies, biology, practical training.*
Аннотация. *Данная статья посвящена основной проблеме профессионального образования – формированию общих и профессиональных компетенций выпускника. Важную роль в формировании базовых компетенций для будущих ветеринарных фельдшеров играет общеобразовательная дисциплина «Биология», являющаяся профильной.*
Ключевые слова: *профессиональные компетенции, общие компетенции, биология, практические занятия.*

DOI 10.54092/9781471069598_48

«Что пользы в том, что ты многое знал,
раз ты не умел применить
свои знания к своим нуждам».
Франческа Петрарки

При составлении образовательных программ специальностей среднего профессионального образования важен количественный учёт реализуемых дисциплин, формирующих общие и профессиональные компетенции студентов. В качестве ключевого понятия современного образования выдвигается понятие компетенций, а их формирование заявлено в качестве одной из главных целей профессионального обучения. В каждой образовательной программе специальности/ профессии имеются профильные дисциплины, которые должен знать будущий выпускник углубленно, применительно к своей профессии или же специальности.

Биология является основой при получении многих специальностей из разных областей науки: агрономия, сельское хозяйство, ветеринария. В контексте компетентностного подхода актуально проанализировать взаимопроникновение и взаимосвязь содержания учебных дисциплин, обеспечить согласованность как рабочих программ дисциплин, так и технологий их практической реализации. Важным этапом в формировании общих и профессиональных

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

компетенций будущего ветеринарного фельдшера являются практические занятия. Данный вид занятий в профессиональных программах специальности 36.02.01 Ветеринария представлен гораздо большим количеством часов, чем для других профессий и специальностей, которым обучают в нашем техникуме. Это связано, прежде всего, с тем, что ветеринарные специалисты при изучении биологии создают определённый базис на котором будут формироваться многие профессионально-значимые умения, такие как постановка эксперимента, умение работать с микроскопом и другими техническими средствами, изготавливать препараты, вести записи наблюдений и т.д. Данный вид занятий закладывает основы экспериментального анализа и не должен проводиться демонстрационно.

Программа по биологии предусматривает определенный объем лабораторных занятий, которые должны способствовать накоплению у студентов фактических знаний на основе применения методов наблюдения, практической работы, эксперимента, что в дальнейшем станет необходимостью для выполнения практикума по профессиональным дисциплинам, модулям, МДК.

На лабораторном занятии по специальным дисциплинам имеются большие возможности для построения учебного процесса в плане поиска, учебного исследования, если студенты уже располагают некоторым запасом знаний по изучаемому вопросу и в состоянии пополнить его в ходе проведения наблюдения, эксперимента, практической работы, найти ответы на сформулированные в вопросы, решить предложенные ситуационные задачи.

В результате изучения биологии студент должен:

– знать: современные основы биологии клетки (цитологии, гистологии);

– уметь: излагать и критически анализировать базовую общепрофессиональную информацию;

– владеть: комплексом лабораторных методов исследований;

– обладать следующими профессиональными компетенциями в области биологии:

– демонстрировать знание принципов клеточной организации биологических объектов;

– демонстрировать современные представления об основах биотехнологии и генной инженерии.

Содержание изучаемой проблемы, характер познавательной деятельности обучающихся, дидактические цели и другие факторы, обуславливают возможности организации деятельности либо в иллюстративном, поисковом или исследовательском плане на

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

лабораторных занятиях. Всё выше сказанное способствует развитию у первокурсников способности к абстрактному мышлению, обобщению знаний, а также формированию большого запаса фактических знаний, необходимых для дальнейшего формирования профессиональных и общих компетенций.

Успех лабораторных занятий зависит от тщательной подготовки к их проведению: заранее планируются этапы работы, разрабатывается опросный лист, продумывается и своевременно готовится необходимый материал и приобретается недостающее оборудование. Если проведение намеченных лабораторных опытов требует длительного времени, то изначально планируется подготовка материалов со студентами или же с преподавателями специальных дисциплин, тем самым реализуются междисциплинарные связи.

Непосредственно перед конкретным лабораторным занятием уточняю тему, формулирую учебно-воспитательную задачу, продумываю содержание, методы и приемы предстоящей работы, подбираю и тщательно проверяю все оборудование, предварительно проделываю все предстоящие опыты. При подготовке опытов намечаю их варианты, в том числе контрольные, чтобы более объективными и убедительными были сравнения и , наконец, выводы, к которым следует студенты, и задание на дом.

Резюмируя сказанное, стоит отметить, что практические занятия являются необходимой и неотъемлемой частью образовательного процесса, являются важным звеном в формировании профессиональных и общих компетенций.

References

1. Матушкин, Н. Н. Роль междисциплинарного компонента образовательных программ, реализующих компетентностную парадигму [Текст] / Н. Н. Матуш-кин, И. Д. Столбова // Инновации в образовании – 2010. – № 11. – С. 5–17.

2. Носков, М. В. Междисциплинарная интеграция в условиях компетентностного подхода [Текст] / М. В. Носков, В. А. Шершнева // Высшее образование сегодня. – 2008. – № 9. – С. 23–25.

3. Шамин, А. Н. История биологической химии. Формирование биохимии [Текст] / А. Н. Шамин. – Москва : КомКнига, 2006. – 264 с.

Professional science applies the Creative Commons Attribution (CC BY 4.0) license to the materials published - https://creativecommons.org/licenses/by/4.0/deed.ru

4. Электронный ресурс http://wiki.tgl.net.ru/index.php/Практическая_составляющая_биологии_как_основа_формирования_компетенции (дата обращения 23.08.2022 г.)

5.Электронный ресурс http://engime.org/yaroslavskij-pedagogicheskij-vestnik.html?page=2 (дата обращения 23.08.2022 г.)

Scientific edition

International Research Conference on Technology, Science, Engineering & Economy (Seattle, USA)

Conference Proceedings

August 25th, 2022

Please address for questions and comments on the publications as well as suggestions for cooperation to e-mail address mail@scipro.ru

Edited according to the authors' original texts

Усл. печ. л. 2.8
Оформление электронного издания: НОО
Профессиональная наука, mail@scipro.ru

Lulu Press, Inc.
627 Davis Drive
Suite 300
Morrisville, NC 27560