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Tolstova Olga

Samara State Agrarian University, Samara, Russian Federation

E-mail: stommm3@mail.ru

**INTERDISCIPLINARY APPROACH IN FOREIGN LANGUAGE
TEACHING METHODOLOGY: PHILOLOGY, PEDAGOGY, AND
PSYCHOLINGUISTICS**

Annotation. This article explores the theoretical and methodological foundations and empirical implementation of an interdisciplinary approach to teaching foreign languages to students. The university's academic training in agronomy, animal science, veterinary medicine, agribusiness economics, and biotechnology was carried out through the application of the Content and Language Integrated Learning (CLIL) methodology in combination with active learning strategies. Statistically significant results were obtained in enhancing students' language, professional, and cognitive competencies. The article also highlights the importance of educational digitalization, the introduction of adaptive online courses, and formative assessment in the context of an interdisciplinary approach. The potential for integrating philological, pedagogical, and psycholinguistic knowledge to train competitive specialists in a globalized world is discussed.

Keywords: interdisciplinary integration; second language acquisition; philological research; educational theory; psycholinguistic analysis; content and language integrated learning (CLIL); agri-educational methodologies; cognitive skill development; domain-specific communicative competence; educational digitalization.

Introduction

Modern higher education demands the integration of subject-specific and cross-disciplinary competencies, necessitating an interdisciplinary approach to foreign language instruction in non-linguistic universities. The convergence of philology, pedagogy, and psycholinguistics contributes to the creation of a cognitively-oriented educational environment and the development of students' professional language competence in agricultural specialties [5][1].

In the context of digital transformation in education, the importance of flexible teaching strategies, individualization, and interactive resources is growing, prompting a reevaluation of teaching methodologies through an interdisciplinary lens [7].

Contemporary scholarship highlights the increasing significance of interdisciplinary language education, which serves not only to facilitate robust language acquisition but also to address authentic challenges in the agricultural sector by integrating STEM disciplines and fostering learners' critical thinking abilities. This



pedagogical paradigm draws upon social constructivist theories, utilizing language instruction as a catalyst to deepen engagement and reinforce the mastery of agricultural sciences. [2].

Theoretical Foundations

The philological component ensures linguistic validity and authenticity of the language material. The pedagogical component focuses on designing the educational process using activity-based and competency-based approaches. The psycholinguistic component explains cognitive mechanisms of perception and acquisition of foreign language information, including memory, attention, and associative thinking [6][3].

Moreover, a key development in agricultural foreign language teaching is the integration of specialized agricultural terminology and contextualized professional scenarios. Mastery of domain-specific vocabulary such as “crop rotation,” “soil fertility,” and “animal husbandry” facilitates international communication, technology exchange, and sustainable agricultural practices [1]. Incorporating foreign language agricultural terminology supports the globalization of agriculture and the transfer of innovative knowledge across borders.

By merging subject-specific content with language instruction, the CLIL approach facilitates the development of professional competencies, engaging students in practical communicative scenarios that are enhanced by specialized agricultural terminology and context-driven problem-solving activities. Metacognitive learning strategies and feedback technologies further enhance learner autonomy and motivation [8][4].

Materials and Methods

The experimental study was implemented at Samara State Agrarian University and involved a cohort of 50 students specializing in agronomy, animal science, veterinary medicine, agribusiness management, biotechnology, and biology. Methods included pedagogical experiments, testing, surveys, observation, expert evaluation, and student self-assessment.

Statistical data were analyzed using Student’s t-test and correlation analysis. The learning process employed CLIL technology, case methods, role-playing, discussions, project work, and digital platforms (Google Classroom, Quizlet, Padlet) supporting adaptive online learning environments [2][5].

In addition, the use of interdisciplinary STEM methods proved effective in increasing learner engagement and critical thinking, thereby supporting the integration of real agricultural problems into language learning curricula [2][3].

Results

1. Language competence: The proportion of students with a high level of foreign language proficiency increased from 14% to 52% ($p < 0.01$); average test score rose from 62.3 to 84.7[1].

2. Professional communication: Students successfully applied professional terminology and solved subject-related case studies in a foreign language, especially in veterinary and agronomy tracks [1].

3. Active learning strategies markedly enhanced students’ motivation and engagement with both linguistic and professional disciplines, contributing to the



development of memory retention, attentive focus, and higher-order analytical reasoning. [3][6].

4. Individualization: Adapting learning materials to students' specialties and proficiency levels enhanced engagement and outcomes [5].

5. Development of transversal skills: Students reported growth in critical thinking, self-regulation, and creativity.

6. Digital integration: Multimedia and interactive resources such as videos, podcasts, and virtual simulations enriched content perception and language practice [4].

7. Holistic professional thinking: Integration of various knowledge areas fostered comprehensive understanding of professional activity and communication in a foreign language [8][7].

Moreover, findings indicate that incorporating agricultural foreign language terminology significantly improves students' capacity to engage in international markets, access educational resources, and participate in global innovation networks, thus enhancing the interdisciplinary educational impact.

Discussion

The results confirm the effectiveness of the interdisciplinary approach in developing professionally oriented language competence. The CLIL methodology combined with active learning methods fosters cognitive flexibility, critical thinking, and interdisciplinary analysis [1][5].

Digital educational tools promote personalized learning paths, particularly important in hybrid and online environments. Formative assessment encourages reflection and self-regulation among students [6][2].

The approach aligns with national standards and federal initiatives such as "Professionalism" and "Digital Department," improving links between education and professional practice [3][7].

Incorporating sociocultural, regional, and field-specific content increases motivation and contributes to the development of global communication competence [4][8]. The integration of STEM interdisciplinary methods further supports learners in applying language skills to authentic agricultural problems and promotes systemic thinking necessary for professional success [2][3].

Future research should investigate neuropsychological aspects of language perception in professional contexts and expand interdisciplinary teaching frameworks to encompass emerging digital and personalized learning technologies [1][6].

Conclusion

Samara State Agrarian University's experience demonstrates that an interdisciplinary approach synthesizing philological, pedagogical, and psycholinguistic knowledge substantially improves foreign language instruction. This approach nurtures competitive specialists with professional and communicative flexibility, ready for international cooperation.

Future efforts should focus on:

- Developing digital educational platforms and CLIL-based modules tailored to agricultural specialties;
- Teacher training in interdisciplinary foreign language instruction;



• Research on neuropsychological mechanisms in language perception within professional agricultural contexts.

This integrated framework is essential for equipping future specialists to address the evolving requirements of the global agricultural sector and to promote sustainable development via proficient professional communication. [1][2].

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Толстова О.С.

МЕЖДИСЦИПЛИНАРНЫЙ ПОДХОД В МЕТОДИКЕ ПРЕПОДАВАНИЯ ИНОСТРАННЫХ ЯЗЫКОВ: ФИЛОЛОГИЯ, ПЕДАГОГИКА И ПСИХОЛИНГВИСТИКА

Аннотация. В статье рассматриваются теоретико-методологические основы и практическая реализация междисциплинарного подхода к обучению иностранным языкам студентов аграрного вуза. Эксперимент с участием 50 студентов Самарского государственного аграрного университета, обучающихся по направлениям агрономия, зоотехния, ветеринария, экономика агробизнеса и биотехнология, был проведён с использованием методики предметно-языкового интегрированного обучения (CLIL) и активных методов обучения. Были получены статистически значимые результаты в повышении языковой, профессиональной и когнитивной компетентности студентов. Также в статье подчёркивается значимость цифровизации образования, внедрения адаптивных онлайн-курсов и формирующего оценивания в условиях междисциплинарного подхода. Обсуждаются перспективы интеграции филологического, педагогического и психолингвистического знания для подготовки конкурентоспособных специалистов в условиях глобализирующегося мира.

Ключевые слова: междисциплинарный подход; иностранный язык; филология; педагогика; психолингвистика; CLIL; аграрное образование; когнитивная компетентность; профессиональная коммуникация; цифровые технологии.

Толстова О.С.

ШЕТЕЛ ТІЛДЕРІН ОҚЫТУ ӘДІСТЕМЕСІНДЕГІ ПӘНАРАЛЫҚ ҚАТЫНАСТЫҢ РӨЛІ: ФИЛОЛОГИЯ, ПЕДАГОГИКА ЖӘНЕ ПСИХОЛИНГВИСТИКА

Андатпа. Мақалада аграрлық университет студенттеріне шетел тілдерін оқытудағы пәнаралық тәсілдің теориялық-әдіснамалық негіздері мен оны практикалық жүзеге асыру жолдары қарастырылады. Самара мемлекеттік аграрлық университетінің агрономия, мал шаруашылығы, ветеринария, агробизнес экономикасы және биотехнология мамандықтарында оқитын 50 студент қатысқан эксперимент жүргізілді. Оқытуда пән мен тілді кіріктіре оқыту (CLIL) әдістемесі және белсенді оқыту әдістері қолданылды. Нәтижесінде студенттердің тілдік, кәсіби және когнитивтік құзыреттерінің едәуір артқаны статистикалық тұрғыдан дәлелденді. Сонымен қатар мақалада білім беруді цифрландырудың, бейімделген онлайн курстарды енгізудің және қалыптастырушы бағалаудың маңыздылығы атап өтіледі. Жаһандану жағдайында бәсекеге қабілетті мамандарды даярлау үшін филологиялық, педагогикалық және психолингвистикалық білімді біріктіру мүмкіндіктері қарастырылады.

Кілт сөздер: пәнаралық тәсіл; шетел тілі; филология; педагогика; психолингвистика; CLIL; аграрлық білім; когнитивтік құзыреттілік; кәсіби коммуникация; цифрлық технологиялар.