PYTHONDA MATEMATIK STATISTIK TAHLIL HAQIDA

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Annotatsiya: *Matematik statistik tahlil ilm-fan, muhandislik, biznes va ijtimoiy fanlar kabi turli sohalardagi ma'lumotlarni talqin qilish va ma'no qilish uchun muhim vositadir. Ushbu maqolada biz ma'lumotlarni tahlil qilish uchun mashhur dasturlash tili bo'lgan Python yordamida statistik tahlilni qanday amalga oshirishni o'rganamiz. Biz tavsiflovchi statistika, gipoteza testi va regressiya tahlili kabi asosiy tushunchalarni qamrab olamiz.*

Kalit so'zlar : *Matematik statistik tahlil, Python, ma'lumotlar tahlili, tavsiflovchi statistika, gipoteza testi, regressiya tahlili.*

Kirish :

Python ko'p qirrali dasturlash tili bo'lib, matematik statistik tahlilni amalga oshirish uchun kuchli kutubxonalarni taqdim etadi. NumPy , Pandas va SciPy kabi kutubxonalar bilan Python ma'lumotlarni tahlil qilish va vizualizatsiya qilish uchun keng ko'lamli vositalarni taklif etadi. Ushbu maqolada biz Python-da statistik tahlil asoslarini ko'rib chiqamiz va ushbu usullarni haqiqiy dunyo ma'lumotlar to'plamiga qanday qo'llashni ko'rsatamiz.

Ta'riflovchi statistika ko'pincha ma'lumotlarni tahlil qilishda birinchi qadamdir. Bu o'rtacha, median, standart og'ish va dispersiya kabi ko'rsatkichlar yordamida ma'lumotlar to'plamining asosiy xususiyatlarini umumlashtirish va sharhlashni o'z ichiga oladi. Python-ning Pandas kutubxonasi ushbu statistikani hisoblashni osonlashtiradi va ma'lumotlarning tarqalishini tushunish uchun gistogrammalar va quti chizmalari kabi vizualizatsiyalarni yaratadi .

Gipotezalarni tekshirish statistik tahlilning yana bir muhim jihati bo'lib, namunaviy ma'lumotlar asosida populyatsiya parametrlari haqida xulosa chiqarish imkonini beradi. Python-dagi SciPy kabi kutubxonalar yordamida biz guruhlar o'rtasida sezilarli farq bor-yo'qligini yoki kuzatilgan effekt tasodif tufayli ekanligini aniqlash uchun t-testlari va chi-kvadrat testlari kabi turli gipoteza testlarini o'tkazishimiz mumkin.

Regressiya tahlili ma'lumotlar to'plamidagi o'zgaruvchilar o'rtasidagi munosabatlarni modellashtirish uchun kuchli vositadir. Python'da Statsmodels yoki scikit -learn kabi kutubxonalardan foydalanib , biz bir yoki bir nechta bashorat qiluvchi o'zgaruvchilarga asoslangan natijalarni bashorat qilish uchun regressiya modellarini moslashimiz mumkin. Bu bizga ma'lumotlardagi naqshlarni ochish va kelajakdagi kuzatishlar haqida bashorat qilish imkonini beradi.

Matematik statistik tahlil ma'lumotlar fani va analitikaning muhim tarkibiy qismi bo'lib, ma'lumotlar naqshlari asosida qimmatli tushunchalar va bashoratlarni taqdim etadi. So'nggi yillarda Python o'zining soddaligi, ko'p qirraliligi va NumPy , Pandas va SciPy kabi kuchli kutubxonalari tufayli statistik tahlillarni o'tkazish uchun mashhur dasturlash tiliga aylandi .

Statistik tahlilning asosiy tushunchalaridan biri ko'plab statistik texnikalar uchun asos bo'lgan ehtimollar nazariyasidir. Pythonda ehtimollik taqsimotini NumPy tasodifiy moduli

yordamida osongina modellashtirish mumkin . Masalan, oddiy taqsimotdan tasodifiy sonlarni yaratish bir necha qator kod yordamida amalga oshirilishi mumkin :

```python
import numpy as np

mean = 0
std_dev = 1
num_samples = 1000


samples = np.random.normal(mean, std_dev, num_samples)
```

Ma'lumotlarimizni yaratganimizdan so'ng, biz turli statistik tahlillarni o'tkazishni boshlashimiz mumkin. O'rtacha, median, rejim, dispersiya va standart og'ish kabi tavsiflovchi statistikani NumPy yoki Pandas yordamida osongina hisoblash mumkin :

```python
import numpy as np

data = [1, 2, 3, 4, 5]
mean = np.mean(data)
median = np.median(data)
variance = np.var(data)
std_deviation = np.std(data)

print("Mean:", mean)
print("Median:", median)
print("Variance:", variance)
print("Standard Deviation:", std_deviation)
```

Ta'riflovchi statistik ma'lumotlarga qo'shimcha ravishda, Python xulosaviy statistika uchun kuchli vositalarni ham taklif qiladi. Gipoteza testi - bu ikki guruh o'rtasida sezilarli farq borligini yoki kuzatilgan ta'sir tasodif tufayli ekanligini aniqlash uchun ishlatiladigan keng tarqalgan usul. SciPy kutubxonasi t-testlar va ANOVA kabi turli xil gipoteza testlarini o'tkazish uchun funktsiyalarni taqdim etadi :

```python
from scipy import stats

group1 = [10, 12, 14]
group2 = [8 , 9 ,11]

t_statistic,p_value=stats.ttest_ind(group1 , group2)

if p_value <0.05:
    print("Reject null hypothesis")
else:
    print("Failed to reject null hypothesis")
```

Mashinani o'rganish algoritmlari ko'pincha ma'lumotlar naqshlari asosida bashorat qilish uchun statistik tahlil usullariga tayanadi. Scikit -learn kabi kutubxonalar Python yordamida o'qitilishi va baholanishi mumkin bo'lgan mashinani o'rganish modellarining keng doirasini taklif qiladi . Masalan , logistik regressiya modeli quyidagicha amalga oshirilishi mumkin:

```
from sklearn.linear_model import LogisticRegression
from sklearn.model_selection import train_test_split

X_train,X_test,y_train,y_test=train_test_split(X,y,test_size=0.2)

model=LogisticRegression()
model.fit(X_train,y_train)

predictions=model.predict(X_test)
```

Xulosa qilib aytganda , python-da matematik statistik tahlil ma'lumotlarni tahlil qilish va ma'lumotlardan olingan natijalar asosida asosli qarorlar qabul qilishda hal qiluvchi rol o'ynaydi. NumPy , Pandas va kabi kuchli kutubxonalar yordamida SciPy Python-da murakkab statistik tahlil vazifalarini bajarish har qachongidan ham osonlashdi.

Xulosa :

Xulosa qilib aytganda, Python barcha o'lchamdagi ma'lumotlar to'plamida matematik statistik tahlilni amalga oshirish uchun boy vositalar to'plamini taqdim etadi. NumPy , Pandas, SciPy , Statsmodels va scikit -learn kabi kutubxonalardan foydalanib , tahlilchilar tavsiflovchi statistika, gipoteza sinovi va regressiya tahlili orqali o'z ma'lumotlaridan qimmatli ma'lumotlarga ega bo'lishlari mumkin. Ma'lumotlarga asoslangan qarorlar qabul qilishga talab sanoat bo'ylab o'sishda davom etar ekan, Python-da statistik tahlilni o'zlashtirish har qanday ma'lumot olimi yoki tahlilchi uchun bebaho mahorat bo'ladi.

ADABIYOTLAR RO'YXATI:

65. Qobilovna, A. M. (2024). SOCIAL PSYCHOLOGICAL DETERMINANTS OF FORMATION OF COMMUNICATIVE COMPETENCE. *MASTERS*, *2*(5), 62-68.

66. Qobilovna, A. M. (2024). SOCIAL PSYCHOLOGICAL DETERMINANTS OF FORMATION OF COMMUNICATIVE COMPETENCE IN PRIMARY SCHOOL TEACHERS. *MASTERS*, *2*(5), 69-75.

67. Qobilovna, A. M. (2024). СОЦИАЛЬНО-ПСИХОЛОГИЧЕСКИЕ ДЕТЕРМИНАНТЫ ФОРМИРОВАНИЯ КОММУНИКАТИВНОЙ КОМПЕТЕНТНОСТИ УЧИТЕЛЕЙ НАЧАЛЬНЫХ КЛАССОВ. *WORLD OF SCIENCE*, *7*(5), 347-354.

68. Qobilovna, A. M. (2024). КОММУНИКАТИВНЫЕ КОМПЕТЕНТНОСТИ УЧИТЕЛЕЙ НАЧАЛЬНЫХ ШКОЛ. *WORLD OF SCIENCE*, *7*(5), 362-370.

69. Qobilovna, A. M. (2024). СОЦИАЛЬНО-ПСИХОЛОГИЧЕСКИЕ ДЕТЕРМИНАНТЫ ФОРМИРОВАНИЯ КОММУНИКАТИВНОЙ КОМПЕТЕНТНОСТИ. *WORLD OF SCIENCE*, *7*(5), 340-346.

70. Qobilovna, A. M. (2024). BOSHLANGANCHI SINF O 'QITUVCHILARING KOMMUNIKATIV KOMPETENTSIYALARI. *MASTERS*, *2*(5), 83-90.

71. Qobilovna, A. M. (2024). ФОРМИРОВАНИЕ КОММУНИКАТИВНОЙ КОМПЕТЕНТНОСТИ В СОЦИАЛЬНОЙ ПСИХОЛОГИИ. *MASTERS*, *2*(5), 76-82.

72. Qobilovna, A. M. (2024). FORMATION OF COMMUNICATIVE COMPETENCE IN SOCIAL PSYCHOLOGY. *WORLD OF SCIENCE, 7*(5), 355-361.

73. Qobilovna, A. M. (2024). COMMUNICATIVE COMPETENCIES OF PRIMARY SCHOOL TEACHERS. *PSIXOLOGIYA VA SOTSIOLOGIYA ILMIY JURNALI, 2*(4), 89-96.

74. Qobilovna, A. M. (2024). BOSHLANG'ICH MAKTAB O'QITUVCHILARIDA KOMMUNIKATIV KOMPETENTSIYANI SHAKLLANTIRISHNING IJTIMOIY PSIXOLOGIK OMILLARI. *PSIXOLOGIYA VA SOTSIOLOGIYA ILMIY JURNALI, 2*(4), 75-81.

75. Qobilovna, A. M. (2024). IJTIMOIY PSÍXOLOGIYA FANIDAN KOMMUNIKATIV KOMPETENSIYANI SHAKLLANTIRISH. *PSIXOLOGIYA VA SOTSIOLOGIYA ILMIY JURNALI, 2*(4), 82-88.

76. Qobilovna, A. M. (2024). KOMMUNIKATIV KOMPETENSIYATNI SHAKLLANTIRISHNING IJTIMOIY PSIXOLOGIK ANTRORLARI. *PSIXOLOGIYA VA SOTSIOLOGIYA ILMIY JURNALI, 2*(4), 68-74.

77. Qobilovna, A. M. (2024). INVESTIGATING THE ISSUE OF COMMUNICATIVE AND ORGANIZATIONAL SKILLS IN PSYCHOLOGY. *PEDAGOG, 7*(5), 601-609.

78. Атавуллаева, М. К. (2023). ПСИХОЛОГИЧЕСКИЕ ДЕТЕРМИНАНТЫ ФОРМИРОВАНИЯ СОЦИАЛЬНО-ПСИХОЛОГИЧЕСКОЙ КОМПЕТЕНТНОСТИ УЧИТЕЛЕЙ НАЧАЛЬНЫХ КЛАССОВ. *European research*, (3 (81)), 39-41.

79. Атавуллаева, М. (2024). ПРОЯВЛЕНИЕ АСПЕКТОВ КОММУНИКАТИВНОЙ КВАЛИФИКАЦИИ В ХОДЕ ПРОФЕССИОНАЛЬНОЙ ДЕЯТЕЛЬНОСТИ. *Журнал академических исследований нового Узбекистана, 1*(1), 14-18.

80. Атавуллаева, М. К. (2023). РОЛЬ И ЗНАЧЕНИЕ СОЦИАЛЬНОГО ИНТЕЛЛЕКТА УЧИТЕЛЯ НАЧАЛЬНЫХ КЛАССОВ В ЭФФЕКТИВНОСТИ ОБУЧЕНИЯ. *European research*, (3 (81)), 41-43.

81. Qobilovna, A. M. (2024). MANIFESTATION OF FACTORS OF COMMUNICATIVE COMPETENCE IN THE PROCESS OF PROFESSIONAL ACTIVITY. *International Journal of Pedagogics, 4*(01), 66-73.

82. Qobilovna, A. M. (2023). PROGRAM FOR THE DEVELOPMENT OF PRIMARY SCHOOL TEACHERS'COMMUNICATIVE COMPETENCE FACTORS. *International Journal of Pedagogics, 3*(12), 169-175.

83. Qobilovna, A. M. (2023). PROGRAM FOR THE DEVELOPMENT OF FACTORS OF COMMUNICATIVE COMPETENCE OF PRIMARY SCHOOL TEACHERS. *International Journal of Pedagogics, 3*(11), 131-137.

84. Qobilovna, A. M. (2022). BOSHLANG 'ICH SINF O 'QITUVCHILARIDA KOMMUNIKATIV KOMPITENTLIK SHAKLLANISHINING IJTIMOIY-PSIXOLOGIK DETERMINANTLARI. *Central Asian Research Journal for Interdisciplinary Studies (CARJIS)*, (Special Issue 1), 102-105.

85. Qobilovna, A. M. (2023). Communicative Competence As A Factor Of Teacher's Professional Competency. *American Journal Of Social Sciences And Humanity Research, 3*(09), 32-44.

86. Ataullayeva, M. (2024). COMMUNICATIVE COMPETENCE AS A FACTOR OF PERSONAL AND PROFESSIONAL DEVELOPMENT OF A FUTURE SPECIALIST. *Журнал академических исследований нового Узбекистана, 1*(2), 17-22.

87. Obidovna, D. Z. (2022). GENDER DIFFERENTIATION OF MASCULINE AND FEMININE VERBALIZATION. *European International Journal of Multidisciplinary Research and Management Studies, 2*(05), 59-65.

88. Djalilova, Z. O. (2021). Studies on gender linguistics in the field of Uzbek language. *Academic research in educational sciences, 2*(3), 391-397.

89. Obidovna, D. Z., & Denis, S. (2021). Formulas of speech etiquette in a gender-engineered communication strategy. *Central asian journal of theoretical & applied sciences, 2*(6), 5-11.

90. Obidovna, D. Z. (2021). Comparative Analysis Of Uzbek Men's And Women's Speech Through The Prism Of Gender Linguistics. *Central Asian journal of literature, philosophy and culture, 2*(2), 22-26.

91. Obidovna, D. Z. (2022). Speech Behavior and its Gender Specificity on the Basis of the Main English Language Variants. *Middle European Scientific Bulletin, 22*, 199-205.

92. Obidovna, D. Z. (2021). Gender issues in foreign theoretical linguistics: concerning the history of the issue. *Gender issues, 7*(6).

93. JALILOVA, Z. O. (2021, March). ON THE FORMATION OF THE LANGUAGE OF SCIENTIFIC LITERATURE IN THE HISTORY OF THE ENGLISH LANGUAGE. In *E-Conference Globe* (pp. 18-22).

94. Jalilova, Z. O. (2020). Concerning the issue of terms, having a place with various morphological classes (in view of the example of the terminologial arrangement of social action). *Новый день в медицине*, (4), 501-503.

95. Djalilova, Z. O., Juraev, S. S., & Kosimov, S. M. (2021). LATIN AS A PROFESSIONAL LANGUAGE OF MEDICAL WORKERS. *Международный научно-практический электронный журнал «МОЯ ПРОФЕССИОНАЛЬНАЯ КАРЬЕРА». Выпуск № 23 (том 1)(апрель, 2021). Дата выхода в свет: 30.04. 2021.*, 79.

96. Djalilova, Z. O. (2023). A DISCOURSIVE TURN IN THE THEORY OF LINGUISTIC POLITENESS: TO THE FORMATION OF THE THEORY OF LINGUISTIC IMPOLITENESS. *International Journal Of Literature And Languages, 3*(02), 15-23.

97. Djalilova, Z. (2023). PEDAGOGICAL EDUCATIONAL TECHNOLOGY: ESSENCE, CHARACTERISTICS AND EFFICIENCY. *Академические исследования в современной науке, 2*(23), 29-38.

98. Djalilova, Z. (2023). THE SIGNIFICANCE AND POSITION OF TEACHING METHODS IN PROFESSIONAL TRAINING. *Solution of social problems in management and economy, 2*(10), 31-42.

99. Djalilova, Z. (2023). THE USE OF LATIN TERMINOLOGY IN MEDICAL CASE. *Академические исследования в современной науке, 2*(14), 9-15.

100. Джалилова, З. (2023). The notion of illocution in the theory of speech acts by John Austin. *Современные тенденции при обучении иностранному языку в XXI веке, 1*(1).

101. Obidovna, D. Z. (2023). ADAPTING TEACHING METHODS TO MODERN EDUCATIONAL TRENDS: PEDAGOGICAL ASPECT. *International Journal of Pedagogics, 3*(10), 72-77.

102. Djalilova, Z. (2023). LANGUAGE LEARNING STRATEGIES AND THEIR IMPLICATION FOR TEACHING ENGLISH. *Центральноазиатский журнал образования и инноваций, 2*(11), 18-22.

103. Obidovna, D. Z., & Sulaimonovich, D. S. (2023). Influence of the Mode of Work and Recreation of the Student's Health. *INTERNATIONAL JOURNAL OF HEALTH SYSTEMS AND MEDICAL SCIENCES, 2*(3), 3-5.

104. Obidovna, D. Z., & Sulaymonovich, D. S. (2023). Forming a Healthy Lifestyle for Students on the Example of the Volleyball Section in Universities. *EUROPEAN JOURNAL OF INNOVATION IN NONFORMAL EDUCATION, 3*(3), 22-25.

105. Obidovna, D. Z., & Sulaymonovich, D. S. (2022). Physical activity and its impact on human health and longevity. *Достижения науки и образования*, (2 (82)), 120-126.

106. Obidovna, D. Z., & Sulaymonovich, D. S. (2022). THE CONCEPT OF" HEALTHY LIFESTYLE" IN PSYCHOLOGICAL RESEARCH. *ResearchJet Journal of Analysis and Inventions, 3*(06), 53-64.

107. Jo'rayev, S., & Djalilova, Z. (2022). NEUROLOGICAL STATUS OF CHILDREN WITH INTRAUTERINE DEVELOPMENTAL DELAY. *International Bulletin of Medical Sciences and Clinical Research, 2*(9), 34-37.

108. Djalilova, Z. (2023). ADVANCING PEDAGOGICAL APPROACHES: LEVERAGING ARTIFICIAL INTELLIGENCE TECHNOLOGIES TO ENHANCE THE INTEGRATION OF ENGLISH AND LATIN LANGUAGE INSTRUCTIONAL METHODS. *International Bulletin of Medical Sciences and Clinical Research, 3*(12), 54-60.

109. Djalilova, Z. (2023). ADVANCING CRITICAL THINKING PROFICIENCY THROUGH OPTIMIZED PEDAGOGICAL APPROACHES. *International Bulletin of Medical Sciences and Clinical Research, 3*(12), 61-67.

110. Djalilova, Z. (2023). IMPROVING METHODOLOGIES FOR INTEGRATIVE ENGLISH AND LATIN LANGUAGE TEACHING USING ARTIFICIAL INTELLIGENCE TECHNOLOGIES. *Центральноазиатский журнал образования и инноваций, 2*(12 Part 2), 29-34.

111. Djalilova, Z. (2023). ELEVATING CRITICAL THINKING WITH EFFICIENT TEACHING METHODS (GEARED TOWARDS MEDICAL STUDENTS). *International Bulletin of Medical Sciences and Clinical Research, 3*(11), 97-102.

112. Obidovna, D. Z. (2023). THE ART OF QUESTIONING: ENHANCING CRITICAL THINKING THROUGH EFFECTIVE PEDAGOGICAL TECHNIQUES. *International Journal Of Literature And Languages, 3*(11), 54-60.

113. Djalilova, Z. O., Tasheva, N. Z., Nematova, Z. T., & Nasrieva, G. Z. (2023). LEXICO-SEMANTIC PECULIARITIES IN MODERN ENGLISH (ANALYZING ITS BOTH LANGUAGE VARIANTS: BRITISH AND AMERICAN ENGLISH ONES). *Journal of Advanced Zoology, 44*(S2), 4433-4445.

114. Obidovna, D. Z. (2024). THE PEDAGOGICAL-PSYCHOLOGICAL ASPECTS OF ARTIFICIAL INTELLIGENCE TECHNOLOGIES IN INTEGRATIVE EDUCATION. *International Journal Of Literature And Languages, 4*(03), 13-19.

115. Джалилова, З., & Эргашева, Ш. (2024). ПСИХОЛОГИЧЕСКИЕ ОСНОВЫ И НАУЧНО-ТЕОРЕТИЧЕСКИЕ ПРИНЦИПЫ ФОРМИРОВАНИЯ ЯЗЫКОВЫХ УСТАНОВОК СТУДЕНТОВ ВЫСШЕГО УЧЕБНОГО ЗАВЕДЕНИЯ. *Журнал академических исследований нового Узбекистана, 1*(2), 116-120.

116. Djalilova, Z. (2024). ADVANCING CRITICAL THINKING PROFICIENCY THROUGH OPTIMIZED PEDAGOGICAL APPROACHES. *Центральноазиатский журнал междисциплинарных исследований и исследований в области управления, 1*(2), 24-29.

117. Djalilova, Z. (2024). ADVANCING PEDAGOGICAL APPROACHES: LEVERAGING ARTIFICIAL INTELLIGENCE TECHNOLOGIES TO ENHANCE THE INTEGRATION OF ENGLISH AND LATIN LANGUAGE INSTRUCTIONAL METHODS. *Центральноазиатский журнал междисциплинарных исследований и исследований в области управления, 1*(2), 19-23.

118. Djalilova, Z. (2024). APPLICATION OF ARTIFICIAL INTELLIGENCE TECHNOLOGIES IN HISTORY EDUCATION. *Журнал академических исследований нового Узбекистана, 1*(2), 5-11.

119. Djalilova, Z. (2024). ELEVATING CRITICAL THINKING WITH EFFICIENT TEACHING METHODS (GEARED TOWARDS MEDICAL STUDENTS). *Центральноазиатский журнал междисциплинарных исследований и исследований в области управления, 1*(2), 8-12.

120. Джалилова, З. (2024). МЕТОДЫ РАЗРАБОТКИ ТЕХНОЛОГИЙ ИСКУССТВЕННОГО ИНТЕЛЛЕКТА ДЛЯ ИНТЕГРАТИВНОГО ПРЕПОДАВАНИЯ АНГЛИЙСКОГО ЯЗЫКА СТУДЕНТАМ МЕДИЦИНСКИХ ВУЗОВ. *Журнал академических исследований нового Узбекистана, 1*(1), 19-22.

121. Jalolov, T. S. (2024). ПОРЯДОК СОЗДАНИЯ ПСИХОЛОГИЧЕСКИХ ТЕСТОВЫХ ПРОГРАММ. *PEDAGOG, 7*(6), 145-152.

122. Jalolov, T. S. (2024). BOSHLANG'ICH SINF O'QUVCHILARIDA MULTIMEDIA TEXNOLOGIYALARI ORQALI IJODIY FIKRLASHNI KUCHAYTIRISH. *BIOLOGIYA VA KIMYO FANLARI ILMIY JURNALI, 2*(5), 64-70.

123. Jalolov, T. S. (2024). PYTHONNING MATEMATIK KUTUBXONALARINI O'RGANISH: KENG QAMROVLI QO'LLANMA. *BIOLOGIYA VA KIMYO FANLARI ILMIY JURNALI, 2*(5), 71-77.

124. Jalolov, T. S. (2024). DASTURLASHDA INGLIZ TILINING AHAMIYATI. *BIOLOGIYA VA KIMYO FANLARI ILMIY JURNALI, 2*(5), 78-84.

125.　　Jalolov, T. S. (2024). EXPLORING THE MATHEMATICAL LIBRARIES OF PYTHON: A COMPREHENSIVE GUIDE. *WORLD OF SCIENCE, 7*(5), 121-127.

126.　　Jalolov, T. S. (2024). ENHANCING CREATIVE THINKING IN ELEMENTARY SCHOOL STUDENTS THROUGH MULTIMEDIA TECHNOLOGIES. *WORLD OF SCIENCE, 7*(5), 114-120.

127.　　Jalolov, T. S. (2024). THE IMPORTANCE OF ENGLISH IN PROGRAMMING. *WORLD OF SCIENCE, 7*(5), 128-134.

128.　　Жалолов, Т. (2023). Использование математических методов в психологических данных (с использованием программного обеспечения SPSS). *in Library, 4*(4), 359-363.