



PEDAGOGICAL-PSYCHOLOGICAL FOUNDATIONS OF DATA PROCESSING USING THE SPSS PROGRAM

Tursunbek Sadriddinovich Jalolov
Asia International University

The pedagogical-psychological foundations of data processing using the SPSS program refer to the principles and theories from the fields of education and psychology that underpin the teaching and learning of data analysis using SPSS. This includes understanding how individuals learn, process, and understand information, as well as how to effectively teach them these skills. In the context of data processing using SPSS, it is important to consider how students learn best, what teaching methods are most effective, and how to support their cognitive development in this area. This may involve understanding different learning styles, providing hands-on practice with the software, and scaffolding instruction to gradually build students' skills.

From a psychological perspective, it is important to consider factors such as motivation, self-efficacy, and metacognition in teaching data processing with SPSS. Motivating students to engage with the material, building their confidence in their abilities, and helping them develop awareness of their own learning processes are all important considerations.

By integrating pedagogical and psychological principles into the teaching of data processing using SPSS, educators can create effective and engaging learning experiences that support students' development of essential analytical skills. These foundations can also help ensure that instruction is tailored to meet the needs of diverse learners and promote deep understanding of the material.

The pedagogical-psychological foundations of data processing using the SPSS program involve understanding how individuals learn and process information, as well as applying psychological principles to effectively teach and use the SPSS program for data analysis.

1. Individual Learning Styles: Understanding the various learning styles of students is important for teaching data processing using SPSS. Some students may be visual learners, while others may be more kinesthetic or auditory learners. Tailoring instructional methods to accommodate different learning styles can enhance student comprehension and retention of SPSS concepts.

2. Cognitive Load Theory: Considering cognitive load theory is essential when teaching data processing with SPSS. This theory suggests that working memory has limited capacity, so instructors should present information in a way that minimizes cognitive overload. This could involve breaking down complex SPSS procedures into smaller, more manageable steps and providing opportunities for active learning and practice.

3. **Motivation and Engagement:** Motivating students to learn SPSS and engage with the material is crucial for effective learning. Instructors can leverage psychological principles of motivation, such as intrinsic motivation, goal setting, and self-efficacy, to encourage students to actively participate in data processing activities using the SPSS program.

4. **Feedback and Reinforcement:** Providing timely and constructive feedback is essential for helping students learn how to effectively process data using SPSS. Utilizing principles of reinforcement, such as positive reinforcement for correct analysis techniques or corrective feedback for errors, can strengthen student understanding and skill development.

5. **Transfer of Learning:** Facilitating the transfer of learning from the classroom to real-world applications is an important pedagogical-psychological consideration when teaching SPSS. Instructors should design activities that allow students to practice applying their SPSS skills in authentic research or practical scenarios to solidify their understanding.

By integrating these pedagogical-psychological foundations into instruction on data processing using the SPSS program, educators can enhance student learning outcomes and empower individuals to effectively analyze and interpret data in various contexts.

REFERENCES:

1. Jalolov, T. S. (2023). PSIXOLOGIYA YO ‘NALISHIDA TAHSIL OLAYOTGAN TALABALARGA SPSS YORDAMIDA MATEMATIK USULLARNI O ‘RGATISHNING METODIK USULLARI. *Educational Research in Universal Sciences*, 2(10), 323-326.

2. Jalolov, T. S. (2023). PYTHON INSTRUMENTLARI BILAN KATTA MA’LUMOTLARNI QAYTA ISHLASH. *Educational Research in Universal Sciences*, 2(10), 320-322.

3. Jalolov, T. S., & Usmonov, A. U. (2021). “AQLLI ISSIQXONA” BOSHQARISH TIZIMINI MODELLASHTIRISH VA TADQIQ QILISH. *Экономикаисоциум*, (9 (88)), 74-77.

4. Sadriddinovich, J. T. (2023). Capabilities of SPSS Software in High Volume Data Processing Testing. *American Journal of Public Diplomacy and International Studies* (2993-2157), 1(9), 82-86.

5. Ikromova, S. (2023). INTERPRETATION OF THE PSYCHOLOGICAL SAFETY FACTOR IN RELATION TO DESTRUCTIVE INFORMATION IN ADOLESCENTS. *Modern Science and Research*, 2(9), 390-394.

6. Ikromova, S. (2023). CONCEPT OF IDEOLOGY AND FORMATION OF IDEOLOGICAL IMMUNITY IN YOUTH STUDENTS. *Modern Science and Research*, 2(6), 1223-1226.

7. Ikromova, S. (2023). FORMATION OF IDEOLOGICAL IMMUNITY TO DESTRUCTIVE INFORMATION IN TEENAGERS. *Modern Science and Research*, 2(5), 1009-1014.

8. Ikromova, S. A. (2022). MILLIY VA DINIY QADRIYATLARNING INSON TARBIYASIDAGI O'RNI. *Экономикаисоциум*, (12-2 (103)), 675-678.

9. Ikromova, S. A. (2023). SHAXS OG 'ISHGAN XULQINING KO 'RINISHLARI VA DESTRUKTIV AXBOROTLARNING KO 'RINISHLARI. *Educational Research in Universal Sciences*, 2(10), 528-532.

10. Akbarovna, I. S. (2023). YOSHLARDA DESTRUKTIV G'OYALARGA QARSHI IMMUNITET HOSIL QILISH OMILLARI.

11. Akbarovna, I. S. (2023). TALABA YOSHLARDA MAFKURA TUSHUNCHASI VA MAFKURAVIY IMMUNITETNI SHAKLLANTIRISH.

4. Акбаров, Х. Ў., Абдуллаев, Б. И., & Мирзаев, М. А. Ў. (2021). АКУСТИК СИГНАЛЛАРДАН ФОЙДАЛАНГАН ХОЛДА КЕСИШ ЖАРАЁНИДА КЕСУВЧИ АСБОБ МАТЕРИАЛЛАРИ ТАЪСИРИНИ ВА КЕСИШ ШАРОИТЛАРИНИ ЎРГАНИШ. *Scientific progress*, 2(2), 1614-1622.

5. Иванова, В. П., Цыпкина, В. В., Акбаров, Ф. А. У., Носирова, Д. А., & Муминов, Х. А. У. (2020). Влияние улучшения технологии изготовления токопроводящей жилы на эксплуатационный характеристики кабельно-проводниковой продукции. *Universum: технические науки*, (11-5 (80)), 29-34.

6. Akbarov, A. K. (2012). *Communication Approach in English Through the Internet*. Cambridge Scholars Publishing.

7. Ким, С. Г. (2022). ПРИМЕНЕНИЕ ИННОВАЦИОННЫХ МЕТОДОВ В ПОДГОТОВКЕ УЧАЩИХСЯ ОБРАЗОВАТЕЛЬНЫХ УЧРЕЖДЕНИЙ В ОБЛАСТИ ЗАЩИТЫ ОТ СИЛЬНЫХ ЗЕМЛЕТРЯСЕНИЙ. *O'ZBEKISTONDA FANLARARO INNOVATSIYALAR VA ILMIY TADQIQOTLAR JURNALI*, 1(8), 11-14.

8. Turgunov, E., Abdumajidov, I. B. O. G., Anvarov, A. A. O. G., & Valiev, R. A. O. G. (2022). MOYLASH MATERIALLARINING QOVUSHQOQLIK XUSUSIYATLARIGA HARORAT TA'SIRINI O'RGANISH. *Academic research in educational sciences*, 3(1), 419-425.

9. Джина, Ж., & Личман, Е. Ю. (2021). СКРИПИЧНОЕ ИСКУССТВО СОВРЕМЕННОГО КАЗАХСТАНА. *Студенческий форум*, 10.

10. Горшкова, Е. А., & Акбаров, А. Н. О. (2021). СОВЕРШЕНСТВОВАНИЕ АНТИКОРРУПЦИОННОЙ ПОЛИТИКИ В СОВРЕМЕННОЙ РОССИИ. In *Участие образовательных организаций в противодействии коррупции* (pp. 43-48).

11. TAKHIROVA, F. A., ALIKHANOVA, N. M., KHAYDAROVA, F. A., ALIMOV, A. V., BERDYKULOVA, D. M., AKBAROV, Z. S., ... & ROMANOVA, L.

D. БИМЕДИЦИНА ВА АМАЛИТ ЖУРНАЛИ ЖУРНАЛ БИМЕДИЦИНЫ И ПРАКТИКИ JOURNAL OF BIOMEDICINE AND PRACTICE.

12. Abdugafurovich, T. T. (2021). In The Process of Educating Students of the Faculty of Military Education in the Spirit of Patriotism the Invaluable Contribution and Significance of the Uzbek People to the Victory Over Fascism (Dedicated to the 76th anniversary of The Victory of the Seco. CENTRAL ASIAN JOURNAL OF SOCIAL SCIENCES AND HISTORY, 2(4), 90-93.

13. Турғунбоев, Т. А., & Убайдуллаев, С. С. (2022). БАТАНСЕВАРЛИК ВА МАЪНАВИЙ ТАРБИЯ ҲАҚИДА. О'ЗБЕКISTONDA FANLARARO INNOVATSIYALAR VA ILMIY TADQIQOTLAR JURNALI, 1(11), 353-355.

14. Турғунбаев, Т. А. (2021). Вклад и значение узбекского народа в победу над фашизмом (к 76-летию Победы во Второй мировой войне). Молодой ученый, (18), 485-488.

15. Abdugafurovich, T. T. (2021). The Importance of Forbidden Islam in Spiritual Growth, Problems and Solutions. International Journal of Human Computing Studies, 3(1), 141-143.

16. Abdugafurovich, T. T. (2022). ЁШЛАРДА СОҒЛОМ МАФКУРА ВА БАТАНПАРВАРЛИК ТУЙҒУСИНИ ШАКЛЛАНТИРИШ. О'ЗБЕКISTONDA FANLARARO INNOVATSIYALAR VA ILMIY TADQIQOTLAR JURNALI, 1(8), 846-849.

17. Турғунбаев, Т. А., & Каримов, Ў. У. (2020). Ҳамма Нарса-Фронт Учун, Ҳамма Нарса-Ғалаба Учун!(Иккинчи Жаҳон Урушида Қозонилган Ғалабанинг 75 Йиллигига Бағишланади). Интернаука, (19-4), 52-53.

18. Abdugafurovich, T. T., & Shokhmukhammad, M. (2021). THE ROLE OF EDUCATING STUDENTS IN THE SPIRIT OF MILITARY PATRIOTISM IN EDUCATIONAL INSTITUTIONS. Galaxy International Interdisciplinary Research Journal, 9(9), 126-130.

19. Abdugafurovich, T. T. (2021). The importance of pedagogical ideas in the formation of youth. ACADEMICIA: An International Multidisciplinary Research Journal, 11(4), 1066-1069.