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Nota di contenuto	1. Introduction -- 2. Related work -- 2.1 Frequent itemset mining based on apriori -- 2.2 Frequent itemsets mining based on FP-growth -- 2.3 Frequent itemsets mining based on Eclat framework -- 3. Elements of learning behaviors and research problems -- 4. Improved Eclat framework -- 4.1 Related models -- 4.1.1 Expected "Support" of reference items -- 4.1.2 Frequent itemsets -- 4.1.3 Probability frequency -- 4.1.4 Probabilistic frequent itemsets -- 4.2 Algorithm design -- 5. Experiments -- 5.1 Performance Indicators -- 6. Probabilistic frequent itemsets analysis of learning behaviors -- 7. Decision-making scheme for improving learning behaviors -- 7.1 Learning content will affect the frequent itemsets of learning behaviors -- 7.2 Teaching goals will affect the frequent itemsets of learning behaviors -- 7.3 The frequent itemsets of learning behavior have the characteristics of explicit and implicit association -- 7.4 Learning behavior needs the adaptive support of specific algorithm and data structure -- 8. Conclusion -- Compliance with ethical standards -- A list of acronyms -- References.
Sommario/riassunto	Interactive learning environment is the key support for education decision making, the corresponding analytics and methodology are the important part of educational technology research and development. As an important part and the research challenge, learning behaviors are uncertain and produce complex data relationships, which makes the learning analysis process more difficult. This chapter studies the feasibility of Eclat framework applying in educational decision making

and get the corresponding the data analysis results. We take probabilistic frequent itemsets and association rules as research objectives, extract and standardize multiple data subsets; Based on Eclat framework, using data vertical format, we design and improve the models and algorithms in the process of data management and processing. The results show that the improved models and algorithms are effective and feasible. On the premise of ensuring robustness and stability, the mining quality of probabilistic frequent itemsets and association rules is guaranteed, which is conducive to the construction of key execution topology of learning behaviors, and improves the accuracy and reliability of data association analysis and decision prediction. The whole analysis methods and demonstration processes can provide references for the study of interactive learning environment, as well as decision suggestions and predictive feedback.