*Intro:*

*This paper I had taken which we will use it in our research which related with education and data mining.*

*We will talk about evaluating student knowledge using some application of data mining naming microlevel clickstream it based on sets of correct and incorrect responses to problem known as inference or latent knowledge estimation three methods are Bayesian Knowledge tracing , performance factors analysis and deep knowledge tracing , these methods help to know how this student level in knowledge .*

*Bayesian Knowledge tracing “BKT”*

*In this technique study when and how student be master in a unique skill we can use something like that in how can be a kid brilliant in some skills and make him specialized in it. and this technique mean its parameters like how make sure that this student master in some skill or old knowledge for that student related about this skill .*

*performance factors analysis “BFA”*

*parameters provide insight on the relative difficulty of skills and the relative learning associated with correct and incorrect answers. Extensions of PFA are an active area of research—for instance.*

*Deep Knowledge Tracing “DKT”*

*DKT has emerged as a popular alternative to BKT and PFA. DKT uses recurrent neural networks to model skill knowledge and mastery, producing a vector of the probability of mastery associated with each opportunity to practice a skill. Compared with the other approaches.*

*Conclusion:*

*The availability of big data offers exciting new threads of research and the opportunity to add additional perspective to existing threads in education. All types of big data in education offer affordances and challenges. The sheer amount of microlevel data make big data methods a powerful tool for analyzing learner processes, but that power can lead researchers to ignore broader and potentially more important patterns that cannot be measured at the microlevel. Macrolevel data provide a deep window into cognitive processes by examining individuals ’writing .*