

# **How to Create Mathematics Lessons with Focus on Discovery, Investigatory and Dialogic Learning**

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**Resumo:** In this interactive talk we demonstrate how to create alternative ideas for teaching a certain topic in the mathematics classroom. This means to encourage teachers and future teachers to widen their horizon of educational ideas and goals. With help of different didactical approaches different „shapes“ of the topics can be seen, different access-points will be highlighted and come into action. We will talk about geometry, the notion of „circle“. How can we initiate an exploratory approach? What part of the notion „circle“ can be discovered? How can we encourage to investigate this certain mathematical object? How to get into a real dialogue about what students imagine, when they start thinking about circles? Classroom examples will be given and also theoretical background.