
Project Report for Data Literacy 2023/24

Grade Inflation in the German School System - Causes and Effects

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Abstract

TODO Test

1. Introduction

The Abitur grades have constantly increased in the German school system over the past decades. Every year, when the Abitur takes place, the grades and the difficulty of the exercises are extensively discussed in the media and have been part of a fierce research discussion for decades. The central focus of the discourse revolves around the question of whether grade inflation occurs, signifying a rise in grades without a corresponding increase in competence or knowledge.

The discourse has predominantly centred around mathematics, since the difficulty of exercises is easiest to compare. The line is drawn between mathematicians arguing that specific exercises are easier than exercises in the past (Kühnel, 2015) (Jahnke et al., 2014) (Lemmermeyer et al., 2019) and studies claiming that grade inflation cannot be reliably proven since the competence of students has also increased (Schleithoff, 2015). In 2015, a data-driven approach was employed, involving the analysis of comprehensive data on the education system. The analysis was promising, but not yet enough to neglect the claim of a grade inflation (Grözingen & Baillet, 2015).

This paper expands on that work, disproving the claim that grade inflation is the main cause of the observed trend. This study provides a data analysis building upon past research to provide an explanatory framework for the improvement of Abitur grades. The analysed data is

taken from official resources such as the German Federal Statistics Office.

The study undertakes an analysis of the quantifiable impacts stemming from the upward trend in Abitur grades within the educational system. Prognostications are offered concerning the trajectory of future grade developments and the implications for the German education system.

References

Grözingen, G. and Baillet, F. Gibt es auch beim abitur eine noteninflation? zur entwicklung der abiturnoten als hochschulzugangsberechtigung – eine darstellung und analyse aus soziologischer perspektive. *Bildung und Erziehung*, 68(4):473–494, 2015. doi: 10.7788/bue-2015-0407.

Jahnke, T., Klein, H. P., Kühnel, W., Sonar, T., and Spindler, M. Die hamburgener abituraufgaben im fach mathematik. entwicklung von 2005 bis 2013. *Mitteilungen der Deutschen Mathematiker-Vereinigung*, 22(2):115–122, 2014. doi: doi:10.1515/dmvm-2014-0046. URL <https://doi.org/10.1515/dmvm-2014-0046>.

Kühnel, W. Modellierungskompetenz und problemlösekompetenz im hamburgener zentralabitur zur mathematik. *Mathematische Semesterberichte*, 62:69–82, 2015.

Lemmermeyer, F., Kühnel, W., Spindler, M., and Klein, H. P. Zentralabitur 2019: Weitere absenkung der mathematischen anforderungen zentralabitur 2019: The lowering of mathematical standards continuous. *Journal für Didaktik der Naturwissenschaften und der Mathematik (F)*, 3: 92–98, 2019.

Schleithoff, F. Noteninflation im deutschen schulsystem – macht das abitur hochschulreif? / grade inflation in the german school system. *ORDO*, 66(1):3–26, 2015. doi: doi:10.1515/ordo-2015-0103. URL <https://doi.org/10.1515/ordo-2015-0103>.

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