

Volume 17
Number 02
July, 2024

BEST EVIDENCE IN CHINESE EDUCATION



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BEECE

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pISSN: 2639-5312 eISSN: 2639-5320

Best Evidence in Chinese Education

pISSN 2639-5312

eISSN 2639-5320

(Bimonthly)

Volume 17, No. 2

July 2024

Insights Publisher

Best Evidence in Chinese Education

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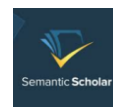


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Gain or Loss? The Internet Use among Generation Z and its Impact on Their Academic Achievement

Youxi Jiao, Xiulan Yu

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Abstract: Generation Z as digital natives are distinguished by their intense engagement in online activity. This article is an analysis of the impact of the internet use on academic performance in Gen Z based on data from the China Family Panel Studies (CEPS) 2020. Research findings show that there exist divides in the internet use among members of Gen Z with distinct family origins and that the impact of the internet use on students' academic achievement varied according to their educational phases and prior academic rankings. The multi-categorical ordinal logistic regression model was adopted in the analysis.

Best Evidence in Chinese Education 2024; 17(2):1861-1863.

Doi: 10.15354/bece.24.ar121

How to Cite: Jiao, Y., & Yu, X. (2024). Gain or loss? The internet use among generation z and its impact on their academic achievement. *Best Evidence in Chinese Education*, 17(2):1861-1863.

Keywords: Internet Use, Digital Divide, Academic Achievement, Internet-Based Learning Preference

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Conflict of Interests: None.

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Introduction

THERE have been widespread concerns over the educational inequality caused by the digital divide in the internet era. This article aims to explore the differences in the internet use among members of Generation Z (Gen Z) with distinct family origins; the impact of internet-based learning behavior on Gen Z's academic success; and the disparities in the impact between Gen Z students at various educational phases. The study has its implications for promoting educational equity by ascertaining the specific effects of information technology in the digital transformation of education.

Research Hypotheses

H 1: There are social-status differences in the use of the internet. Higher-status Gen Z students are inclined to use the internet for learning purposes, whereas their lower-status peers are more likely to use it for recreation.

H 2: The internet use preference poses significant impacts to student academic achievement. Internet-based learning has positive effects on students' academic ranking; Internet-based recreation has negative effects on students' academic ranking.

H 3: There are age differences in the impacts of the internet use preference on academic performance in Gen Z students.

Research Methodology

The Source of Data

The present study sourced data from the China Family Panel Studies (CEPS) 2020 published by Peking University's Institute of Social Science Survey (ISSS). Members of Gen Z born between 1995 and 2009 were selected as subjects. A sample of 4827 was established after the process of data sorting and screening.

Variables

Student academic performance is the dependent variable in this study, which is indicated by the individual's academic ranking in their grade among secondary school students or by the individual's ranking in a certain major among university students. The Gen Z student's family background and internet use behavior are the independent variables. The variable of student family background is represented by the parental education level and family social status; student internet use behaviors incorporate internet-based learning, online gaming, online shopping, and short video watching. The control variables are divided into school and personal dimensions. The school-related control variables are "being with a prestigious school or not" and "being in an elite class or not;" the personal-level control variables include gender, age, parental political status, etc.

Data Analysis

The dependent variable in this study is a unitary, ordinal categorical variable, the independent variable of student family background is a continuous variable, and student internet use behavior is set as a dichotomous variable. Thereby, the software STATA 17.0 was used to conduct the multicollinearity test and Wald test on independent variables (Qu & Min, 2019), and the multi-categorical ordinal logistic regression model was adopted for data analysis.

Research Findings

The research findings of the study include: (i) There were significant differences in “digital habits” among members of Gen Z with differential family status. Higher-status students showed a stronger preference for internet-based learning, whereas their lower-status peers exhibited a stronger preference for online recreation, which represents a new form of digital divide. (ii) There was heterogeneity in the effects of the internet use on student academic achievement, which generally confirmed the hypotheses about the impacts of the “preference for learning” and “preference for recreation” on student performance. (iii) The impacts of the internet use on academic achievement among members of Gen Z varied according to their individual educational phases and prior academic rankings. Internet-based learning considerably contributes to academic success of university students but had no significant positive effect on academic performance of secondary school students. The negative impacts of online recreation are significant and universal, particularly impairing academic achievement of secondary school students. Therefore, it is imperative to bridge the digital divide of any form, foster legitimate digital habits in students, and maximize digital dividends to optimize Gen Z’s educational attainments and advance educational equity in the digital era.

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The Chinese version of this article has been published in Chinese Journal of Distance Education, 2024; 44(1):1-14. The English version has been authorized for being publication in BECE by the author(s) and the Chinese journal.

焦佑希, 余秀兰. (2024). 增益还是损抑? Z 世代互联网使用及其对学业成就的影响. *中国远程教育*, 44(1):1-14.

Received: July 01, 2024

Revised: July 08, 2024

Accepted: July 20, 2024

NEWSLETTER

Teacher Vitality and Positive Teacher-Student Relationships: A Study of Emotional Transmission between Teachers and Students

By Yan, W., Shi Z., & Peng, K.

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THE INTERACTION between teachers and students has long been a vital research question among educational researchers. In recent years, incremental attention has been paid to the impact of positive psychological traits and emotions of teachers on teacher-student interactions. Drawing on the vitality theory, this study posited that the vitality of teachers contributed to enhancing students' vitality and fostering positive teacher-student relationships via the emotional transmission effect, particularly through students' perception of teacher enthusiasm. This hypothesis was empirically examined with a sample of 2,386 Chinese secondary school students and 76 head teachers.

Research findings:

- After controlling for the gender and age of teacher and student participants, teacher vitality could significantly and positively predict students' perception of positive teacher-student relationships.
- After controlling for the gender and age of teacher and student participants, teacher vitality could indirectly impact students' perception of positive teacher-student relationships via the mediating effect of students' perception of teacher enthusiasm; the mediating effect of student vitality; and the chain mediating effect of students' perception of teacher enthusiasm and student vitality.

Implications:

- The role of teacher vitality in boosting positive teacher-student relationships is realized through the emotional transmission between teachers and students.
- The teacher-student relationship, an integral part of classroom instruction, is interwoven into the whole processing of teaching and learning. Good teacher-student relationships substantially foster students' development of knowledge and character.
- Education administrators of all levels and school leaders should work to enhance the vitality of teachers and circumvent job

burnout in them by alleviating their work burdens and increasing their professional autonomy; by engaging them in curriculum management; and by optimizing their compensation as well as improving their physical and mental wellbeing.

- The encouragement of teacher and student vitality necessitates a vibrant school climate. It is necessary for the society to pay respect to the operation autonomy of the school, for the school administrators to pay respect to the professional autonomy of the teacher, and for teachers to pay respect to the student' autonomy in learning and development.

Source: Journal of East China Normal University, 2024; 42(3):78-86.

NEWSLETTER

The Cost of Virtual Reality in Health: An Empirical Analysis of the Impact of Online Gaming on Adolescent Mental Health

By Sun, H., Su, J., & Ru, P.

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AMONG MANY factors contributing to adolescents' mental health issues, the prevalence of online gaming is considered as a major one in the literature. This article is an analysis of the effect of online gaming on teenager mental health with a close examination of various factors influencing the effect including personal characteristics of the student and peer, family, and school characteristics. The research is based on the data from the China Education Panel Survey (CEPS) 2014-2015. The seventh and ninth graders from 438 classes in 112 schools were included in the sample.

Research findings:

- In general, online gaming was unfavorable to adolescents' mental health development. After controlling for other factors, the bigger amount of time the student spent on online gaming, the poorer mental health they had.
- Regarding student personal factors, there was no gender difference in their mental health; students with Hukou in rural areas had lower levels of mental health; student academic performance was positively related to their mental health levels; student misconduct was a negative predictor of their mental health. After controlling for these personal factors, online gaming time negatively predicted adolescents' mental health levels.
- The school's ranking and the average academic level of the class were negatively related to the student's mental health state. This may be due to the intense academic competition among higher-achieving peers. After controlling for peer characteristics-related factors, the intensity of online gaming was negatively predictive of the student's mental health state.
- The parent-child relationship and family SES were significantly and positively related to student mental health; Parental supervision was negatively but not significantly related to student mental health; Living with parents or not directly correlated with the adolescent child's mental health state. After controlling

for these family-related factors, there was an inverse relation between online gaming time and adolescent mental health.

- After controlling for school-related factors, such as the school location and school type, the intensity of online gaming was significantly and negatively related to the student's mental health level.

Source: Tsinghua Journal of Education, 2023; 44(6):103-114.

NEWSLETTER

The Relationship between Achievement Goal Orientation and Academic Achievement in Senior Secondary School Students: The Mediating Effect of Self-Regulated Learning

By Sun, W., Guo, K., Zhao, X., Zhang, J., Luo, R., & Si, J.

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ACADEMIC achievement is not only an indicator of students' learning outcomes but also a predictor of their future academic well-being, social adaptation, and career development. The achievement goal, as a basic component of the achievement motivation of the individual, has the potential to pose significant impacts on student academic performance. According to the achievement goal orientation theory, student achievement goals include the performance approach goal, performance avoidance goal mastery approach goal, and mastery avoidance goal. This article is a close examination of the relation between the achievement goal orientation and academic achievement in Chinese senior secondary school students as well as the mediating effect of self-regulated learning on this relationship. The research is based on a longitudinal survey of academic results of 1,389 10th and 11th graders within six months.

Research findings:

- The mastery approach and avoidance goals had significantly positive and direct effects on students' immediate and ensuing academic results, as opposed to the significantly negative and direct effects of the performance avoidance goal.
- The performance approach, mastery approach, and mastery avoidance goals could indirectly and positively predict students' immediate and ensuing academic results via the mediation of student self-regulated learning. On the contrary, the performance avoidance goal could indirectly and negatively predict students' immediate and ensuing academic results via the mediating effect of student self-regulated learning.

The research demonstrates that there are variations in the effect on student academic results among distinct achievement goals. It provides empirical evidence to explorations of how to help high school students establish appropriate achievement goals and increase self-regulated learning capacities for improving their academic achievement.

Source: Psychological Science, 2024; 17(1):78-86.

NEWSLETTER

The Relation between Adolescents' Weight and Peer Effects in the Classroom Setting: An Empirical Analysis

By Du, S., Cheng, G., & Yu, W.

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SINCE THE BEGINNING of the 21st century, obesity among adolescents has become an increasingly serious issue in China. It impedes the development of human capital of the individual, as well as threatening socioeconomic development by inducing exorbitant health expenditure. Among the many factors contributing to this issue is the school environment, particularly the classroom setting, and the basic building block of school education. This article is an investigation of the relationship between adolescents' weight and peer effects in the classroom setting, based on relevant data from the China Education Panel Survey.

Research findings show that:

- There existed significant peer effects in adolescent weight within a class. The average BMI and rates of overweight and obesity in peers were positively related to the weight of each individual teenager.
- The individual's perception of weight moderated peer effects in weight. Overestimating one's own weight remarkably diminished the peer effects, while underestimating it did not.

To positively leverage peer effects in adolescent weight, the study proposes suggestions as follows: (i) Increase investment in teenager health education to advance the action plan for health education of Chinese primary and secondary school students by improving tangible and soft environments for the school-based health education; (ii) Focus the content of health education on plural hazards of overweight and obesity and help students develop legitimate perception of weight, healthy conception of body image, and systematic knowledge about health management; (iii) Pay due regard to students' social experience while introducing the notion of BMI and ensure them a harmonious and friendly school climate in implementing the health education monitoring mechanism.

Source: Journal of East China Normal University, 2023; 41(12):85-99.

NEWSLETTER

Do New Gaokao Schemes Increase Students' Autonomy in Subject Selection: An Empirical Analysis Based on the CatBoost Regression Tree Model

By Zhou, J., Shan, Z., & Qin, H.

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IN CHINA, the college entrance examination (also known as Gaokao) is an event of paramount importance to the public. In the context of educational reform, the new Gaokao schemes are undergoing adjustments and improvements. The issue of whether the new Gaokao schemes are effective in supporting autonomous subject selection of students is pending further research. This article is an empirical investigation of the issue based on data from 2022's "Gaokao reform questionnaire survey" of college students who have gone through the whole process of the high-stakes examination.

Research Findings:

- The new Gaokao schemes have increased students' autonomy in subject choice. The "3 + 3" and "3 + 1 + 2" patterns, as new Gaokao models, showed no significant differences in the effects on student autonomous subject selection, but both outperforming the prior "3 + X" model.
- The expanded rights of students to subject choice did not lead to an enhancement of their subject selection abilities, but conversely, a certain degree of decline in this regard. Facing more choices and the increased configurations of subjects, the student could not make a legitimate decision on their own but had to seek advice of others.
- The new Gaokao schemes intensified the conflicts between the intentions of the student, parents, and senior secondary teachers in electing subjects. The discrepancies between the needs of student school progression, development, and future employment compromised students' autonomy in subject choice while exacerbating their worries about this issue.
- From the standpoint of enhancing students' autonomy in subject selection, the "3 + 1 + 2" scheme was the most rational choice, favorable for the stable and sustainable reform of Gaokao.

In brief, the new Gaokao scheme involves both students' rights to subject choice and their selection capacities. A blind expansion of students' autonomy in subject selection without regard to their selection abilities is not beneficial to their post-choice academic adaptation. Authorities concerned should provide students with more support in improving their capability of electing subjects by providing guidance on subject selection know-how and developmental planning in order to help them make better use of their selection autonomy and reach equilibrium between the freedom of development and optimization of development.

Source: Journal of East China Normal University, 2024; 42(3):12-25.

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eISSN: 2639-5320

DOI: 10.15354/bece

Best Evidence in Chinese Education

Vol. 17, No. 2, July 2024

Insights Publisher