Research Article https://doi.org/10.12973/ijem.11.3.349

International Journal of Educational Methodology
Volume 11, Issue 3, 349 - 357.
ISSN: 2469-9632
https://www.ijem.com/

Can We Trust Children's Self-Reports? Examining Socially Desirable Responses in Elementary School Surveys

Melissa Dan Wang
The Chinese University of Hong Kong, CHINA

Xuan Zang*
The Chinese University of Hong Kong, CHINA

Received: April 2, 2025 ▪ Revised: May 13, 2025 ▪ Accepted: June 15, 2025

Abstract: Self-report surveys are extensively utilized in educational research to understand students' perceptions and experiences. However, younger children, particularly those in elementary school, may exhibit a tendency to provide socially desirable responses, potentially compromising the data quality. This study examined the prevalence and impact of socially desirable responses in self-report surveys administered to elementary school students. A total of 1,024 students from grades 4 and 5 in five elementary schools participated in the study. Socially desirable responses were measured using detection items embedded within questionnaires. The findings indicate that (a) more than 20% of elementary school students demonstrated socially desirable responses; (b) female students and those with higher academic achievement were more likely to provide socially desirable responses; (c) socially desirable responses skewed the sample distribution by inflating mean scores and reducing standard deviations; and (d) while internal correlations within scales remained relatively stable, external validity, as reflected in correlations between self-reports and academic performance metrics, was significantly affected after adjusting for socially desirable responses. These results underscore the importance of addressing socially desirable responses when interpreting self-report data from young students. The study concludes with practical recommendations for improving the validity of self-report surveys in educational research.

Keywords: *Elementary school, Likert scale, self-report surveys, social desirability bias.*

To cite this article: Wang, M. D., & Zang, X. (2025). Can we trust children's self-reports? Examining socially desirable responses in elementary school surveys. *International Journal of Educational Methodology*, *11*(3), 349-357. https://doi.org/10.12973/ijem.11.3.351

Introduction

Self-report surveys have become a cornerstone of educational research due to their ability to efficiently capture students' perceptions, experiences, and attitudes. These instruments are particularly prevalent in elementary school settings, where they offer a direct window into young students' thoughts—insights that might otherwise remain inaccessible through observational or performance-based assessments (Riley, 2004). However, concerns regarding the validity and reliability of self-reported data remain persistent, especially when the respondents are children. A central issue is the influence of socially desirable responses (SDR)—the tendency to answer in ways that are perceived to be socially acceptable rather than strictly truthful (Bergen & Labonté, 2019; Nederhof, 1985).

SDR has been widely recognized as a response bias that can distort research findings by inflating positive behaviors or attitudes and suppressing less desirable ones. This distortion compromises the integrity of the data and may lead to flawed conclusions (Bergen & Labonté, 2019). In younger populations, such as elementary school students, the problem is further exacerbated by developmental factors. Children at this age are more susceptible to social influence and often motivated by a desire to conform, please adults, or avoid negative evaluations (Steenkamp et al., 2010). Recent research has shown that even preschool children are more likely to conform to social norms than to personal preferences, regardless of whether the norm is endorsed by an adult or another child (Li et al., 2021). As such, their self-reports may reflect perceived expectations rather than authentic opinions or experiences.

Despite the growing use of self-report measures in elementary education, the extent to which SDR affects the quality of this data remains underexplored. Previous research has demonstrated that by the age of four or five, children begin to adapt their verbal behavior to social expectations, such as telling lies to conceal transgressions or to comply with

* **Corresponding author:**
Xuan Zang, Department of Curriculum and Instruction, The Chinese University of Hong Kong, Shatin, Hong Kong, China.
✉ jadezang@link.cuhk.edu.hk

politeness norms. This ability develops alongside their understanding of social conventions and others' mental states (Lee, 2013). Such tendencies are likely to carry over into their responses to surveys in classroom settings (Crandall et al., 1965; Steenkamp et al., 2010). This issue raises significant concerns about the interpretation of self-report data collected from this age group, particularly when it is used to inform instructional practices or assess educational interventions.

Given these challenges, the present study investigates the prevalence and consequences of socially desirable responses among elementary school students. Specifically, it seeks to determine how widespread SDR is in this population, identify which subgroups are more prone to it, and assess its impact on both the distribution of survey responses and their relationship to academic performance. By addressing these issues, this study contributes to the refinement of survey design and offers practical strategies for minimizing response bias in future research involving young students.

Literature Review

SDR in Self-Report Surveys

The issue of SDR has been a significant concern in social science research for decades, as it can compromise the quality of survey data (Grimm, 2010; Nederhof & Zwier, 1983). SDR reflects respondents' tendency to deny undesirable traits and exaggerate desirable ones, thereby presenting themselves in a favorable light (Nederhof, 1985). The magnitude of SDR is often related to the sensitivity of the topic being researched, with respondents tending to underreport undesirable behaviors (e.g., smoking) and overreport positive behaviors (e.g., academic success) (Camerini & Schulz, 2018).

SDR poses a significant problem because it can skew data, resulting in inflated positive outcomes, which falsely suggests a consensus among participants (Bergen & Labonté, 2019). Previous studies have documented the detrimental effects of SDR on data quality in survey-based research (Schmitt et al., 2003). To mitigate this issue, researchers have developed methods to detect and account for SDR. Effective approaches include the inclusion of detection items in questionnaires, which can identify respondents exhibiting socially desirable behavior without alerting them, or the use of a well-trained interviewer (Grimm, 2010; Paulhus, 1991).

Research suggests that certain individuals are more prone to SDR than others. For instance, gender has been identified as a significant factor, with studies indicating that girls are more likely to give socially desirable responses than boys (Camerini & Schulz, 2018). Other individual characteristics, such as social position and personality traits, also influence the likelihood of SDR (Johnson & Van de Vijver, 2003). In addition, the context in which a survey is administered can affect SDR. For example, in school settings, the presence of teachers or the social dynamics among peers may increase the pressure on students to respond in a socially desirable manner (Steenkamp et al., 2010).

SDR among Elementary School Students

Children are particularly susceptible to SDR due to their developmental stage and the social context in which they are often assessed. Research suggests that children as young as four or five years old begin to lie to avoid punishment or gain social approval, and this tendency persists throughout childhood (Lee, 2013). In school settings, where children are often evaluated by adults and surrounded by peers, the likelihood of SDR increases as children may modify their responses to align with perceived adult expectations (Crandall et al., 1965). And classroom contexts, in particular, can exacerbate SDR, as students may feel pressure to conform to the behaviors and attitudes deemed acceptable by teachers or peers (Steenkamp et al., 2010). This is especially true in surveys that ask about topics related to social behavior, such as bullying, academic engagement, or school enjoyment, where students may feel compelled to present themselves in a more favorable light. Previous studies have shown that SDR significantly affects children's self-reports on a range of topics, including family relationships and deviant behavior (Camerini & Schulz, 2018), as well as beliefs about alcohol myths and dietary habits (Carifio, 1992; Guinn et al., 2010).

The Present Study

Despite the widespread use of self-report surveys in educational research, existing studies on SDR have several notable limitations. The majority of prior research has focused on adolescents or adults, while the prevalence and impact of SDR in elementary-aged children have received comparatively little attention. Moreover, few studies have systematically quantified how SDR distorts self-report data using rigorous statistical approaches. In addition, contextual and demographic factors (e.g., gender, academic achievement) that may be associated with SDR in children remain underexplored. Given the developmental tendencies of younger participants to engage in SDR and the increasing reliance on self-report surveys in elementary education, understanding both the prevalence and the impact of SDR in this context is crucial for researchers and educators alike.

Building on the existing literature, the present study aims to address these gaps by investigating SDR among elementary school students. Specifically, we address the following research questions:

RQ1: What is the prevalence of SDR among elementary school students?

RQ2: What are the characteristics of students who exhibit SDR?

RQ3: How does SDR affect the quality of self-report survey data?

By investigating these questions, this study seeks to provide a more nuanced understanding of SDR in elementary school students and its implications for educational research. The findings will offer practical recommendations for improving the design and interpretation of self-report surveys to mitigate the influence of SDR, ultimately leading to more reliable educational assessments and interventions.

Methodology

Participants

A total of 1,024 students from five elementary schools in China participated in this study following parental consent. The participants were in Grades 4 and 5, with ages ranging from 7 to 12 years old (M = 10.33, SD = 0.65). Of these, 485 (47.36%) were female, 451 (44.04%) were male, and the remaining participants did not report their gender.

Process

Data collection was facilitated by teachers at the participating schools, who administered paper-based questionnaires to students during class time. Each participant was required to complete language achievement tests for both Chinese and English and two questionnaires assessing their attitudes toward Chinese and English learning. The questionnaires consisted of 31 items, each rated on a 5-point Likert scale (1 = never, 2 = seldom, 3 = sometimes, 4 = often, 5 = always). The questionnaires measured seven constructs—interest (4 items), utility (4 items), self-efficacy (4 items), growth mindset (4 items), effort regulation (4 items), behavioral control (4 items), and time investment (4 items)—with all items drawn from established scales (Bai & Guo, 2019; Bai & Zang, 2025). In addition, one item was included to identify SDR, and two items required students to self-report their usual academic performance.

To assess SDR, a detection item was embedded toward the end of each questionnaire: "I read 100 Chinese/English books each day." Participants who responded with "sometimes," "often," or "always" were classified as exhibiting SDR, while those who selected "never" or "seldom" were considered non-SDR respondents. In addition to the questionnaires, students reported their gender and age.

Analyses

For the first research question, the prevalence of SDR was determined by calculating the proportion of participants who failed the SDR detection item in the questionnaires. To address the second research question, Pearson correlation analyses were conducted to explore the relationships between SDR and various participant characteristics, including gender, age, self-reported achievement, test scores, and the extent of academic exaggeration. Participants who reported academic achievement levels significantly higher than their actual standardized test scores were classified as exaggerators and the difference between their reported and actual performance was coded as the extent of exaggeration. For the third research question, we examined the impact of SDR on several outcomes. Specifically, we compared the means and standard deviations (SDs) of the target scales, as well as the correlations among the scales, before and after excluding participants identified as SDR respondents. Additionally, we analyzed changes in the external correlations between the self-report scales and academic performance to evaluate the influence of SDR on the validity of these relationships.

Results

SDR Prevalence among Elementary School Students

Excluding students who did not complete the questionnaire, 848 students completed the questionnaire on Chinese learning, and 850 completed the questionnaire on English learning. Among these, above 20% of elementary school students exhibited SDR behavior. Specifically, 218 students (25.7%) failed the SDR detection item in the questionnaire assessing attitudes toward Chinese learning, while 201 students (23.7%) failed the SDR detection item in the questionnaire assessing attitudes toward English learning. A significant positive correlation was found between SDR behaviors in the two questionnaires (r = .409, p < .001), indicating that students who engaged in SDR in one questionnaire tended to do so in the other as well. Table 1 presents the means and correlations for the variables across the two questionnaires. As shown in the table, most constructs are moderately to strongly correlated with each other, indicating consistent relationships among students' attitudes, behaviors, and self-reported reading activities in both subject areas.

Table 1. Means and Correlations of Variables in Two Questionnaires

Variables	Mean (SD)	1	2	3	4	5	6	7	8
Questionnaire about Chinese Learning									
Interest	3.781 (0.882)								
Utility	4.292 (0.696)	0.551							
Self-efficacy	3.748 (0.900)	0.661	0.447						
Growth mindset	4.283 (0.715)	0.587	0.503	0.601					
Effort regulation	3.513 (0.767)	0.626	0.466	0.596	0.558				
Behavior control	4.150 (0.700)	0.570	0.430	0.595	0.563	0.676			
Time investment	3.435 (0.843)	0.581	0.451	0.564	0.526	0.684	0.593		
Self-report reading	3.392 (0.900)	0.380	0.246	0.523	0.357	0.472	0.510	0.375	
Reading test	20.842 (4.907)	0.144	0.173	0.174	0.094	0.201	0.220	0.096	0.317
Questionnaire about English Learning									
Interest	3.727 (0.990)								
Utility	4.244 (0.727)	0.510							
Self-efficacy	3.780 (0.966)	0.735	0.495						
Growth mindset	4.268 (0.769)	0.603	0.629	0.665					
Effort regulation	3.580 (0.856)	0.696	0.513	0.669	0.620				
Behavior control	4.225 (0.711)	0.645	0.523	0.664	0.693	0.726			
Time investment	3.482 (0.920)	0.644	0.479	0.649	0.572	0.747	0.623		
Self-report reading	3.461 (1.040)	0.480	0.230	0.655	0.442	0.520	0.520	0.421	
Reading test	20.391 (7.433)	0.340	0.180	0.393	0.307	0.364	0.411	0.288	0.538

Note. The numbers in the correlation columns correspond to the variable order in the leftmost column: 1 = Interest, 2 = Utility, 3 = Self-efficacy, 4 = Growth mindset, 5 = Effort regulation, 6 = Behavior control, 7 = Time investment, 8 = Self-report reading, 9 = Reading test.

Characteristics of SDR

To examine the characteristics of students who exhibited SDR, we analyzed the correlations between SDR and participants' background information (Table 2). The results revealed that SDR was significantly associated with gender, with female students more likely to engage in SDR than male students. However, no significant relationship was observed between age and SDR. Regarding academic performance, a small but significant positive correlation was found between real academic performance in English and SDR (r = .131). More notably, students' self-reported academic performance in both English and Chinese was more strongly correlated with SDR (r = .092 for Chinese and r = .160 for English) than real academic performance, indicating that students who reported higher academic performance were more likely to engage in SDR. Additionally, exaggeration of academic performance (i.e., reporting higher performance than actual standardized test results) was significantly correlated with SDR in the Chinese subject (r = .073).

Table 2. Correlations Between Background Information and SDR

	Questionnaire 1 (Chinese Learning)		Questionnaire 2 (English Learning)	
Variables	***r***	***p***	***r***	***p***
Gender (0 = Male)	.099	.004	.069	.044
Age	-.006	.861	-.047	.182
Self-report reading	.092	.008	.160	.000
Reading	.009	.806	.131	.015
Exaggerator	.073	.043	.000	.993

Impact of SDR

We examined the impact of SDR on the means and *SD* of the target scales in both questionnaires. Students classified as SDR respondents scored significantly higher on all self-report scales compared to non-SDR respondents, with most mean differences reaching statistical significance (p < .001) in independent-samples t-tests. However, this pattern did not extend to the reading test scores, which were obtained from a separate standardized test rather than self-report. At the same time, the *SD* of the scale scores was smaller for SDR respondents than for non-SDR respondents, indicating that SDR led to a more compressed distribution of responses, with scores skewed toward the higher end (rightward shift). Table 3 provides the means and *SD*s for all data, non-SDR groups, and SDR groups. As shown in Table 3, these results demonstrate that SDR not only inflates mean scores but also reduces variability within the affected groups, highlighting the systematic impact of SDR on self-report data.

In addition to examining the impact of SDR on the distribution of scores, we also analyzed changes in the correlations among target scales before and after removing SDR respondents (Table 4). The average correlation among the seven target scales (e.g., interest, utility) remained relatively stable. In the Chinese learning questionnaire, the average correlation increased slightly from .563 to .567, while in the English learning questionnaire, it remained nearly unchanged, shifting marginally from .624 to .623.

However, the external correlations—specifically the correlations between the target scales and objective reading test scores—changed more noticeably after removing SDR respondents. In the Chinese learning questionnaire, the correlation between the target scales and reading test scores increased from .157 to .183, while in the English learning questionnaire, this correlation decreased slightly from .326 to .310. These findings indicate that SDR has a greater impact on external correlations (i.e., the relationship between scales and external tests from different sources) than on the internal consistency of the scales within the same questionnaire.

Table 3. Means and SD of Scales for All Data, Non-SDR Group, and SDR Group

	All	**Non-SDR**	**SDR**	***p***
Questionnaire 1				
Interest	3.781 (0.882)	3.708 (0.867)	4.036 (0.853)	.000
Utility	4.292 (0.696)	4.253 (0.692)	4.424 (0.681)	.002
Self-efficacy	3.748 (0.900)	3.668 (0.905)	4.032 (0.786)	.000
Growth mindset	4.283 (0.715)	4.220 (0.728)	4.480 (0.625)	.000
Effort regulation	3.513 (0.767)	3.409 (0.751)	3.837 (0.725)	.000
Behavior control	4.150 (0.700)	4.092 (0.716)	4.333 (0.618)	.000
Time investment	3.435 (0.843)	3.298 (0.823)	3.846 (0.748)	.000
Self-report reading	3.392 (0.900)	3.347 (0.902)	3.549 (0.881)	.004
Reading test	20.842 (4.907)	20.72 (4.975)	20.899 (4.828)	.651

Table 3. Continued

	All	Non-SDR	SDR	*p*
Questionnaire 2				
Interest	3.727 (0.990)	3.607 (1.008)	4.121 (0.807)	.000
Utility	4.244 (0.727)	4.219 (0.743)	4.337 (0.648)	.031
Self-efficacy	3.780 (0.966)	3.685 (1.003)	4.097 (0.750)	.000
Growth mindset	4.268 (0.769)	4.225 (0.790)	4.416 (0.686)	.001
Effort regulation	3.580 (0.856)	3.483 (0.881)	3.881 (0.681)	.000
Behavior control	4.225 (0.711)	4.163 (0.728)	4.407 (0.619)	.000
Time investment	3.482 (0.920)	3.368 (0.944)	3.842 (0.740)	.000
Self-report reading	3.461 (1.040)	3.385 (1.065)	3.716 (0.886)	.000
Reading test	20.391 (7.433)	20.307 (7.040)	22.344 (8.033)	.070

Note. Questionnaire 1 assesses attitudes toward Chinese learning; Questionnaire 2 assesses attitudes toward English learning.

Table 4. Average Correlations of Scales and External Correlations Before and After Removing SDR Respondents

	Questionnaire 1		Questionnaire 2	
Correlations	**All**	**Non-SDR**	**All**	**Non-SDR**
Among scales	.563	.567	.624	.623
Correlation with self-report reading	.409	.418	.467	.474
Correlation with reading test	.157	.183	.326	.310

Discussion

This study contributes to the growing body of literature on SDR by demonstrating that it is a significant issue even among elementary school students, a population often overlooked in discussions of response bias. Specifically, more than 20% of the young participants in this study were identified as exhibiting SDR, underscoring that SDR is not exclusive to adults or older students, but also affects children's self-reports. Importantly, our findings suggest that SDR is not a random or isolated behavior but rather a consistent tendency among certain groups of students, particularly females and those who report higher academic achievement.

Prevalence and Consistency of SDR among Elementary School Students

The finding that more than 20% of students engaged in SDR aligns with prior research showing a considerable proportion of respondents in varying populations exhibit response biases in self-report surveys (van de Mortel, 2008). However, this study extends these findings to elementary school students. The consistency of SDR across time indicates that once students begin engaging in SDR, they are likely to continue doing so, which suggests that SDR is a stable response pattern rather than a one-off behavior. This consistency raises concerns about the reliability of self-reported data collected from younger students, particularly in longitudinal studies where repeated measures might be skewed by persistent SDR.

SDR and Student Characteristics

Our findings also show that SDR is not distributed randomly across the sample but is more prevalent among certain subgroups. Specifically, female students and those who reported higher academic performance were more likely to engage in SDR. This aligns with previous research that has noted gender differences in SDR, with females often more prone to adjusting their responses to align with perceived social norms (Camerini & Schulz, 2018). The association between higher self-reported academic achievement and SDR suggests that students who are more concerned with maintaining a positive self-image may be more inclined to inflate their responses, particularly in contexts where their academic performance is being evaluated. This finding is particularly problematic for educational research, as self-reported academic performance is a common measure (e.g., Kohyama, 2017; Rosen et al., 2017), and exaggerated reports could lead to overestimation of student abilities and misaligned educational interventions.

Impact of SDR on Data Analysis

One of the key findings of this study is the significant impact of SDR on the accuracy of data analysis, particularly concerning external correlations, such as those between self-reported attitudes and objective academic performance. While SDR had a minimal effect on internal correlations within the same questionnaire (since the inflation of scores was relatively uniform across scales), it compromised the validity of external correlations, which are critical in educational research for linking constructs like interest and self-efficacy to actual academic outcomes. This finding aligns with van de Mortel (2008), who noted that SDR can distort or create false relationships between variables, leading to misleading conclusions.

Additionally, SDR introduces systematic biases in the distribution of responses, inflating means and reducing SD. This compression of variability not only masks true differences between individuals but also creates an artificial homogeneity in the sample, which distorts key descriptive statistics and hinders accurate generalization to the broader population. Such biases increase the likelihood of Type I errors, where inflated significance levels lead to incorrect conclusions about differences that may not actually exist. These issues highlight the importance of addressing SDR in both data collection and analysis to ensure more accurate and reliable results.

Conclusion

This study provides new evidence on the prevalence and effects of SDR in self-report surveys among elementary school students. Our findings newly demonstrate that more than 20% of students in this age group exhibit SDR tendencies. Importantly, the study identifies specific student characteristics associated with SDR: female students and those with higher self-reported academic achievement are more likely to provide socially desirable responses. A key contribution of this research is the systematic quantification of SDR's impact: SDR not only inflates mean scores and compresses variability on self-report scales, but also significantly weakens the correlation between self-reported measures and objective academic outcomes. This evidence reveals that SDR can undermine both the reliability and external validity of survey data in elementary education research.

By highlighting these specific patterns and demonstrating the measurable consequences of SDR, our study advances current understanding of survey bias in young populations. The findings underscore the importance for researchers to incorporate SDR detection and adjustment strategies when designing and interpreting self-report instruments. These steps will help ensure that future educational assessments more accurately reflect students' true attitudes and experiences, ultimately supporting better-informed educational interventions and policy decisions.

Recommendations

The findings of this study have several important implications for researchers utilizing self-report data in educational contexts. Although the effects of SDR are well documented, detection and mitigation of SDR remain underemphasized in the literature. For example, a meta-analysis by van de Mortel (2008) found that only 0.2% of studies included an SDR scale to evaluate the impact of response bias. This highlights a significant gap in current practice and underscores the need for more rigorous approaches to address SDR. Based on our results, we make the following specific recommendations for scholars:

1. Integrate SDR Detection Items. Researchers should routinely include SDR detection items within self-report surveys to identify and quantify the extent of response bias in their samples.
2. Report and Adjust for SDR. Scholars are encouraged to report the prevalence of SDR in their samples and to conduct sensitivity analyses excluding SDR respondents, thereby providing a clearer understanding of SDR's impact on key findings.
3. Enhance Anonymity and Foster Trust. It is essential to create an environment that emphasizes confidentiality and voluntary participation (Nancarrow et al., 2001). Researchers should clearly communicate these aspects to participants to help reduce pressure to respond in socially desirable ways.
4. Improve Survey Design. Researchers should consider designing survey items and response options that are less susceptible to SDR (Grimm, 2010), such as using neutral wording, avoiding leading questions, and employing indirect questioning techniques.
5. Adopt Advanced Methodologies. When appropriate, more sophisticated approaches—such as randomized response techniques combined with item response theory (IRT)—should be used to minimize the impact of SDR (De Jong et al., 2010).

By implementing these strategies, scholars can improve the reliability and validity of self-report data collected from elementary school students, thereby strengthening the evidence base for educational research and informing more accurate policy and practice.

Limitations

While this study provides valuable insights into the prevalence and impact of SDR among younger students, several limitations must be acknowledged. First, the detection of SDR in this study relied on a single-item measure in each questionnaire. Although this method is commonly used, it may not fully capture the complex nature of SDR behaviors. Future research should employ multi-item SDR scales to provide a more robust assessment of response bias. Additionally, this study was conducted with a sample of students from China, which may limit the generalizability of the findings to other cultural or educational contexts. It is well-established that social desirability behaviors can be influenced by cultural norms, with some cultures placing a higher value on maintaining group harmony or collective interests (Fu et al., 2008). Therefore, future research should explore whether the prevalence and characteristics of SDR differ across diverse cultural settings. Another limitation of this study is its focus on students in grades 4 and 5. While these age groups

provide valuable insights into SDR among younger students, it would be beneficial for future studies to examine SDR across a wider range of grades to determine whether response bias varies by age or developmental stage. Furthermore, the administration of the surveys by teachers in classroom settings may have introduced additional response biases. The presence of teachers during data collection could have increased students' motivation to provide socially desirable answers, thus potentially inflating SDR rates. Future studies should consider alternative administration procedures—such as anonymous, researcher-administered, or online surveys—to minimize the influence of authority figures and enhance response authenticity. Last, future research should also investigate interventions aimed at reducing SDR, such as creating a classroom environment that encourages honest responses and reduces the pressure to conform to socially desirable norms. Such interventions could enhance the validity of self-reported data, leading to more accurate assessments of student attitudes, behaviors, and performance.

Ethics Statements

The studies involving human participants were reviewed and approved by the Chinese University of Hong Kong. The participants provided their written informed consent to participate in this study.

Conflict of Interest

The authors have declared that they have no conflicts of interest to disclose.

Funding

This work was not supported by any funding.

Generative AI Statement

As the authors of this work, we used the AI tool ChatGPT 4o for the purpose of grammar checking. After using this AI tool, we reviewed and verified the final version of our work. We, as the authors, take full responsibility for the content of our published work.

Authorship Contribution Statement

Wang: Conceptualization, design, analysis, writing. Zang: Material support, reviewing, supervision.

References

Bai, B., & Guo, W. (2019). Motivation and self-regulated strategy use: Relationships to primary school students' English writing in Hong Kong. *Language Teaching Research*, *25*(3), 378-399. https://doi.org/10.1177/1362168819859921

Bai, B., & Zang, X. (2025). Bilingual learning motivation and engagement among students in Chinese-English bilingual education programmes in Mainland China: Competing or coexistent? *Journal of Multilingual and Multicultural Development.* Advance online publication. https://doi.org/10.1080/01434632.2024.2449071

Bergen, N., & Labonté, R. (2019). "Everything is perfect, and we have no problems": Detecting and Limiting social desirability Bias in Qualitative research. *Qualitative Health Research*, *30*(5), 783-792. https://doi.org/10.1177/1049732319889354

Camerini, A.-L., & Schulz, P. J. (2018). Social desirability bias in child-report social well-being: Evaluation of the children's social desirability short scale using item response theory and examination of its impact on self-report family and peer relationships. *Child Indicators Research*, *11*, 1159-1174. https://doi.org/10.1007/s12187-017-9472-9

Carifio, J. (1992, March 5-9). *Parallel short forms of the Crandall social desirability test for children: Shortening instruments for research purposes* [Conference presentation]. Annual Meeting of the Eastern Educational Research Association, Hilton Head, SC.

Crandall, V. C., Crandall, V. J., & Katkovsky, W. (1965). A children's social desirability questionnaire. *Journal of Consulting Psychology, 29*(1), 27-36. https://doi.org/10.1037/h0020966

De Jong, M. G., Pieters, R., & Fox, J.-P. (2010). Reducing social desirability bias through item randomized response: An application to measure underreported desires. *Journal of Marketing Research*, *47*(1), 14-27. https://doi.org/10.1509/jmkr.47.1.14

Fu, G., Evans, A. D., Wang, L., & Lee, K. (2008). Lying in the name of the collective good: A developmental study. *Developmental Science*, *11*(4), 495-503. https://doi.org/10.1111/j.1467-7687.2008.00695.x

Grimm, P. (2010). Social desirability bias. *Wiley international encyclopedia of marketing*. https://doi.org/10.1002/9781444316568.wiem02057

Guinn, C. H., Baxter, S. D., Royer, J. A., Hardin, J. W., Mackelprang, A. J., & Smith, A. F. (2010). Fourth-grade children's dietary recall accuracy for energy intake at school meals differs by social desirability and body mass index percentile in a study concerning retention interval. *Journal of Health Psychology*, *15*(4), 505-514. https://doi.org/10.1177/1359105309353814

Johnson, T. P., & Van de Vijver, F. J. R. (2003). Social desirability in cross-cultural research. In J. A. Harkness, F. J. R. van de Vijver, & P. P. Mohler (Eds.), *Cross-cultural survey methods* (pp. 195-204). Wiley.

Kohyama, J. (2017). Self-reported academic performance and lifestyle habits of school children in Japan. *International Journal of Child Health and Nutrition*, *6*(3), 90-97. https://doi.org/10.6000/1929-4247.2017.06.03.1

Lee, K. (2013). Little liars: Development of verbal deception in children. *Child Development Perspectives*, *7*(2), 91-96. https://doi.org/10.1111/cdep.12023

Li, L., Britvan, B., & Tomasello, M. (2021). Young children conform more to norms than to preferences. *PLoS ONE*, *16*(5), Article e0251228. https://doi.org/10.1371/journal.pone.0251228

Nancarrow, C., Brace, I., & Wright, L. T. (2001). "Tell me lies, tell me sweet little lies": Dealing with socially desirable responses in market research. *The Marketing Review*, *2*(1), 55-69. https://doi.org/10.1362/1469347012569427

Nederhof, A. J. (1985). Methods of coping with social desirability bias: A review. *European Journal of Social Psychology*, *15*(3), 263-280. https://doi.org/10.1002/ejsp.2420150303

Nederhof, A. J., & Zwier, A. G. (1983). The 'crisis' in social psychology, an empirical approach. *European Journal of Social Psychology*, *13*(3), 255-280. https://doi.org/10.1002/ejsp.2420130305

Paulhus, D. L. (1991). Measurement and control of response bias. In J. P. Robinson, P. R. Shaver, & L. S. Wrightsman (Eds.), *Measures of personality and social psychological attitudes* (pp. 17-59). Academic Press. https://doi.org/10.1016/B978-0-12-590241-0.50006-X

Riley, A. W. (2004). Evidence that school-age children can self-report on their health. *Ambulatory Pediatrics*, *4*(4), 371-376. https://doi.org/10.1367/a03-178r.1

Rosen, J. A., Porter, S. R., & Rogers, J. (2017). Understanding student self-reports of academic performance and course-taking behavior. *AERA Open*, *3*(2), 1-14. https://doi.org/10.1177/2332858417711427

Schmitt, N., Oswald, F. L., Kim, B. H., Gillespie, M. A., Ramsay, L. J., & Yoo, T.-Y. (2003). Impact of elaboration on socially desirable responding and the validity of biodata measures. *Journal of Applied Psychology, 88*(6), 979-988. https://doi.org/10.1037/0021-9010.88.6.979

Steenkamp, J.-B. E. M., De Jong, M. G., & Baumgartner, H. (2010). Socially desirable response tendencies in survey research. *Journal of Marketing Research*, *47*(2), 199-214. https://doi.org/10.1509/jmkr.47.2.199

van de Mortel, T. F. (2008). Faking it: Social desirability response bias in self-report research. *Australian Journal of Advanced Nursing*, *25*(4), 40-48. http://bit.ly/3ZWv4FI