

DIFFERENCES IN ORAL MOTIVATION AMONG JUNIOR HIGH SCHOOL STUDENTS IN THE DIGITAL AGE

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Abstract

This study investigates English oral self-directed learning motivation among 1,680 Chinese junior high school students, drawing on Self-Determination Theory (SDT; Ryan & Deci, 2020) and Bourdieu's capital theory. Oral motivation is conceptualised as a multidimensional construct comprising intrinsic motivation, extrinsic motivation (instrumental, social, normative), and amotivation. A convergent mixed-methods design combined validated questionnaires with 61 semi-structured interviews. Three hypotheses were tested: (H1) digital capital, family cultural capital, and school digital teaching positively correlate with motivation; (H2) significant group differences exist across urban/rural location, school type, and family SES; and (H3) digital capital's usage dimension shows the strongest correlation with intrinsic motivation. Overall motivation was moderate ($M = 3.21$), with extrinsic motivation ($M = 3.35$) exceeding intrinsic motivation ($M = 2.98$). All hypotheses were supported. All three capital forms correlated positively with motivation ($r = 0.40$ – 0.46), and urban, key-school, and high-SES students demonstrated significantly higher motivation. This study's original contribution lies in simultaneously modelling all three capital forms as predictors of SDT-informed oral motivation dimensions across multiple sociodemographic gradients in a large national sample. Findings call for targeted interventions enhancing digital skills, family language environments, and school digital support—especially for rural, ordinary-school, and low-SES students.

Keywords: *English oral motivation, digital capital, family cultural capital, group differences, junior high school students.*

1. Introduction

With the rapid integration of digital technology into language learning, motivational disparities among students from different socioeconomic and digital-access backgrounds have become a critical research concern (Feng & Tan, 2024; Liu et al., 2024). In China's exam-oriented context, English oral proficiency carries both communicative and instrumental significance, making it a revealing site for examining how structural inequalities shape motivation (Ryan & Deci, 2020). Yet few studies have simultaneously examined how digital capital, family cultural capital, and school digital teaching jointly predict oral motivation across sociodemographic groups. This study addresses that gap by drawing on SDT to conceptualise motivation as multidimensional and on Bourdieu's capital theory to frame structural sources of motivational inequality. Three aims guide the study: (1) describe the overall level and structure of students' oral motivation; (2) examine relationships between motivation and three capital forms; and (3) compare motivation across location, school type, and SES groups. Three corresponding hypotheses are tested (H1–H3 as above).

2. Theoretical framework

2.1. Self-Determination Theory and language learning motivation

Self-Determination Theory (SDT; Ryan & Deci, 2020) provides the primary motivational framework. SDT distinguishes intrinsic motivation—engaging in an activity for its inherent interest and enjoyment—from extrinsic motivation, which encompasses a continuum from external regulation to identified regulation, and from amotivation, which reflects the absence of intentional engagement. Intrinsic motivation is associated with genuine communicative interest, while instrumental extrinsic motivation reflects exam pressures and social utility. In China's exam-oriented educational system, extrinsic motivation tends to predominate (Liu et al., 2024), though digital tools have been associated with increasing intrinsic engagement through more interactive, autonomy-supporting learning experiences.

Oral motivation, as operationalised in this study, is a multidimensional construct encompassing intrinsic motivation (engaging with English speaking for inherent communicative pleasure), extrinsic motivation (comprising instrumental, social, and normative sub-types), and amotivation. This multidimensional conceptualization is consistent with SDT's self-directed learning framework (Ryan & Deci, 2020) and captures both the quality and intensity of students' motivational orientations toward English oral learning.

2.2. Capital theory and educational inequality

Bourdieu's concept of capital—economic, cultural, and social—offers a structural account of educational inequality extended to the digital domain (Pitzalis, 2024). Digital capital, defined as the skills, access, and dispositions enabling effective use of digital technologies (van Dijk, 2020), has emerged as an important predictor of educational outcomes. Family cultural capital—including parental education, literacy practices, and cultural resources—shapes children's dispositions toward learning (de Moll et al., 2024). School digital teaching, conceptualized as the quality of teachers' integration of digital tools into pedagogy (Kiryakova & Kozhuharova, 2024), represents an institutional capital that mediates between student background and learning outcomes. While these three forms of capital have been studied separately, this study's original contribution lies in simultaneously modelling all three as predictors of oral motivation, decomposing motivation into SDT-informed dimensions, and mapping motivational disparities across multiple sociodemographic gradients in a large Chinese sample.

3. Method

3.1. Participants

A total of 1,680 junior high school students from eastern, central, and western regions of China participated. The sample included 826 males (49.2%) and 854 females (50.8%), distributed across grades 7–9. Detailed demographics are shown in Table 1.

Table 1. Sample Demographic Characteristics.

Variable	Category	n	%
Gender	Male	826	49.2%
	Female	854	50.8%
Grade	Grade 7	572	34.0%
	Grade 8	561	33.4%
	Grade 9	547	32.6%
Location	City	612	36.4%
	County	538	32.0%
	Rural	530	31.5%
School Type	Public Key	498	29.6%
	Public Ordinary	621	37.0%
	Private	561	33.4%
Family SES	High	412	24.5%
	Medium	698	41.5%
	Low	570	33.9%

3.2. Instruments

Four validated scales were used (all 5-point Likert, 1 = strongly disagree to 5 = strongly agree): (1) Digital Capital Scale (21 items, $\alpha = 0.903$), assessing digital access, skills, and usage; (2) Family Cultural Capital Scale (11 items, $\alpha = 0.886$), measuring parental education, home literacy, and cultural activities; (3) School Digital Teaching Scale (13 items, $\alpha = 0.897$), evaluating digital tool integration in English instruction; and (4) English Oral Self-Directed Learning Motivation Scale (24 items, $\alpha = 0.917$),

comprising intrinsic motivation, extrinsic motivation (instrumental, social, normative), and amotivation, consistent with the SDT framework.

3.3. Qualitative component

To complement quantitative findings, 61 semi-structured interviews (20–30 minutes each) were conducted with purposively selected students stratified by location (urban/rural), school type, and family SES. Interview questions explored students' perceptions of English oral learning, motivational sources, digital resource use, and family and school support. Interviews were audio-recorded, transcribed, and analysed thematically (Braun & Clarke, 2006). Emerging themes were used to interpret and contextualise quantitative patterns, contributing to a convergent mixed-methods design.

3.4. Data analysis

Descriptive statistics, Pearson correlations, independent-samples t-tests, and one-way ANOVA with Scheffé post-hoc tests were performed using SPSS 26.0. Grouping variables were: urban/rural location (city, county, rural), school type (public key, public ordinary, private), and family SES (high, medium, low).

4. Results

4.1. Overall motivation level and structure

Table 2 shows that students' overall motivation was moderate ($M = 3.21$, $SD = 0.68$). Extrinsic motivation ($M = 3.35$) was significantly higher than intrinsic motivation ($M = 2.98$), $t(1679) = 12.45$, $p < .001$. Among extrinsic dimensions, instrumental motivation was highest ($M = 3.42$), reflecting the exam-oriented learning context consistent with prior literature.

Table 2. Descriptive Statistics for Motivation Dimensions.

Dimension	M	SD	Min	Max
Overall Motivation	3.21	0.68	1.00	5.00
Intrinsic Motivation	2.98	0.74	1.00	5.00
Extrinsic Motivation (total)	3.35	0.66	1.00	5.00
– Instrumental	3.42	0.71	1.00	5.00
– Social	3.29	0.69	1.00	5.00
– Normative	3.31	0.67	1.00	5.00
Amotivation	2.14	0.82	1.00	5.00

4.2. Correlations with three forms of capital

All three forms of capital were positively correlated with total motivation ($p < .001$), supporting H1. Digital capital showed the strongest correlation ($r = 0.46$), followed by family cultural capital ($r = 0.41$) and school digital teaching ($r = 0.40$). The digital usage sub-dimension was particularly strongly correlated with intrinsic motivation ($r = 0.48$), supporting H3 (Table 3).

Table 3. Pearson Correlations between Capital Forms and Motivation Dimensions.

Predictor	Overall Motivation	Intrinsic Motivation	Extrinsic Motivation
Digital Capital	0.46**	0.44**	0.41**
– Digital Usage	0.43**	0.48**	0.38**
– Digital Access	0.35**	0.31**	0.36**
– Digital Skills	0.39**	0.40**	0.36**
Family Cultural Capital	0.41**	0.38**	0.39**
School Digital Teaching	0.40**	0.37**	0.38**

Note. ** $p < .001$

4.3. Group differences

Significant differences were found across all three grouping variables (Table 4), supporting H2. City students ($M = 3.52$) scored significantly higher than county ($M = 3.18$) and rural ($M = 2.89$) students, $F(2, 1677) = 28.36$, $p < .001$, $\eta^2 = .033$. Public key school students ($M = 3.48$) showed higher motivation than ordinary ($M = 3.15$) and private school students ($M = 3.09$), $F(2, 1677) = 22.15$, $p < .001$, $\eta^2 = .026$. High-SES students ($M = 3.54$) demonstrated significantly higher motivation than medium-SES ($M = 3.21$) and low-SES students ($M = 2.88$), $F(2, 1677) = 31.42$, $p < .001$, $\eta^2 = .036$.

Table 4. Summary of Group Differences in Overall Motivation.

Grouping Variable	Category	M	SD	F	p	η^2
Urban/Rural	City	3.52	0.64	28.36	< .001	.033
	County	3.18	0.67			
	Rural	2.89	0.71			
School Type	Public Key	3.48	0.62	22.15	< .001	.026
	Public Ordinary	3.15	0.69			
	Private	3.09	0.70			
Family SES	High	3.54	0.60	31.42	< .001	.036
	Medium	3.21	0.66			
	Low	2.88	0.73			

5. Discussion

This study confirms that junior high school students' English oral motivation is moderate and predominantly extrinsic, consistent with prior research in exam-oriented contexts (Liu et al., 2024). The predominance of instrumental motivation ($M = 3.42$) reflects high-stakes examination pressures that shift motivation toward external regulation, as predicted by SDT (Ryan & Deci, 2020).

The significant positive correlations between all three forms of capital and motivation support H1. Notably, digital capital showed the strongest overall correlation ($r = 0.46$), and the digital usage sub-dimension demonstrated the strongest link with intrinsic motivation ($r = 0.48$), supporting H3. This finding aligns with van Dijk's (2020) second-level digital divide framework, which emphasises skills and usage over mere access: what students do with technology—not simply whether they have it—is the more proximal driver of autonomous motivation. Interview data corroborated this pattern, with students who engaged regularly in digital English activities (e.g., online speaking platforms, video-based learning) reporting stronger genuine interest in oral communication.

The motivational disparities across location, school type, and SES reflect cumulative advantage: rural, ordinary-school, and low-SES students simultaneously possess less digital capital, less family cultural capital, and weaker school digital teaching, producing significantly lower motivation. Qualitative interviews revealed that rural students often cited limited internet connectivity and few opportunities for spoken English practice as key barriers, while high-SES urban students emphasised diverse digital resources and family encouragement as motivational enablers. The absence of a significant difference between ordinary public and private schools suggests that fee-paying private school attendance does not automatically translate into higher oral motivation, possibly reflecting substantial quality variation within private schooling in China.

6. Limitations

Several limitations should be acknowledged. First, the cross-sectional design precludes causal inference; longitudinal or experimental designs are needed to establish directionality. Second, all measures relied on student self-report, introducing potential social desirability bias. Third, the sample spanned three regions but was not a nationally representative probability sample. Fourth, measurement invariance across the full urban–rural spectrum was not independently verified through multi-group confirmatory factor analysis. Fifth, the study did not account for teacher-level variables beyond school digital teaching scores.

7. Conclusion and implications

This study demonstrates that English oral motivation among Chinese junior high school students is not evenly distributed; significant gaps exist based on geographic location, school type, and family background, and these gaps are systematically associated with differential accumulation of digital capital, family cultural capital, and school digital teaching quality. The mixed-methods approach strengthened confidence in these findings by enabling triangulation of quantitative patterns with qualitative insights.

To promote educational equity, policymakers and educators should:

- Provide targeted digital skills training for rural and low-SES students, moving beyond device provision toward structured digital competence development.
- Enhance family language environments through community programs that build family cultural capital among disadvantaged groups.
- Strengthen school digital teaching in ordinary and rural schools through professional development and resource allocation.
- Design school-based interventions to cultivate intrinsic motivation, drawing on SDT principles of autonomy support, competence building, and relatedness.

Future research should employ longitudinal and intervention-based designs to explore causal pathways and test equity-focused digital pedagogy programs.

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