Factors Influencing University Learners' Engagement in Self-directed Language Learning Using Mobile Technology

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Context

It is widely acknowledged that learning a foreign language is often a difficult and time-consuming journey (Wang et al., 2021). In higher education, however, there is not much time for students to learn and master foreign languages as part of the language curriculum, and in some countries, students do not receive enough in-class language exposure to ensure their learning success (Liu, 2020). To increase the opportunities for exposure to foreign languages, many students adopt out-of-class and self-directed language learning facilitated by mobile technology, further enhancing their language competence (Lai et al., 2022).

Problem Statement

- Learning engagement is consistently identified as a key predictor of learner outcomes in online environment (Brown et al., 2022). It contributes to active involvement and persistence in the process and thus relates to successful learning performance.
- Many researchers have mentioned that students may be easily distracted in online learning, let alone if they are relying on self-directed language learning with mobile technology, where they are given full control of their own learning process. Therefore, it is a priority to gain insight into learners' engagement in self-directed learning using mobile technology.

Theoretical framework

Learners' factors
- Self-regulation skills
- Perceived usefulness
- Self-efficacy

Teachers' factor
- Teacher support

Learning engagement
- Cognitive engagement
- Behavioral engagement
- Emotional engagement

Research Questions

Self-Directed Learning

RQ 1:
What activities have students participated in the process of self-directed language learning using mobile technology?

RQ 2:
Is there any difference between different groups?

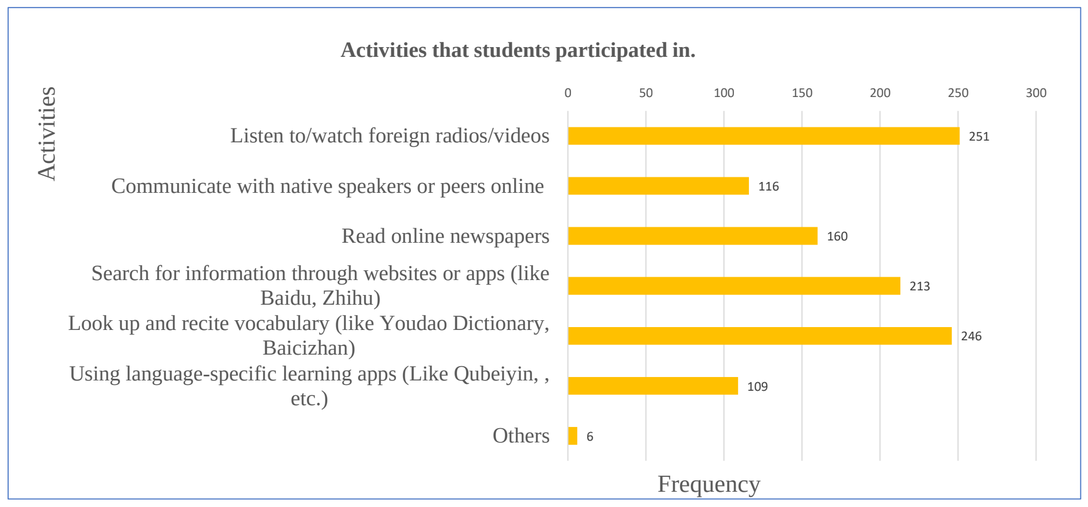
RQ 3:
How are cognitive, behavioral and emotional engagement related to learners' factors and teacher factors in self-directed language learning using mobile technology?

Method

- **Participants**: 325 self-directed English language learners in Chinese universities.
- **Instruments**: A survey
  (1) Social-demographic questions;
  (2) Scales of self-regulation skills, self-efficacy, perceived usefulness, teacher support, cognitive engagement, behavioral engagement and emotional engagement in self-directed language learning using mobile technology
- **Data analysis**: Independent sample *t*-test
  Multiple regression analysis

Results

RQ 1: Activities that students participated in.



RQ 2: The differences between majors

The results showed only students with different majors had a statistical difference on behavioral engagement ($t = 4.554$, $p < 0.001$), emotional engagement ($t = 2.045$, $p < 0.05$), self-regulation skills ($t = 4.371$, $p < 0.01$), teacher support ($t = 4.960$, $p < 0.01$), and self-efficacy ($t = -2.944$, $p < 0.01$), not on cognitive engagement and perceived usefulness.

RQ 3: The effect of learners' and teacher's factors on three dimensions of learning engagement

Table 1. Coefficients estimates of the model with four predictors and cognitive engagement as an outcome variable.

Variables	B	SE	Beta	t	R^2	Adj.R^2	F
1(constant)	.976	.200		4.878			
TS	.025	.041	.031	.608			
SDL	.160	.046	.195**	3.499			
SE	.387	.054	.387***	7.155			
OP	.203	.062	.205**	3.252	.459	.452	67.814***

Table 2. Coefficients estimates of the model with four predictors and behavioral engagement as an outcome variable.

Variables	B	SE	Beta	t	R^2	Adj.R^2	F
1(constant)	.838	.245		3.415			
TS	.217	.050	.221***	4.301			
SDL	.441	.056	.449***	7.888			
SE	.044	.066	.037	.665			
OP	.083	.076	.070	1.082	.438	.431	62.253***

Table 3. Coefficients estimates of the model with four predictors and emotional engagement as an outcome variable.

Variables	B	SE	Beta	t	R^2	Adj.R^2	F
1(constant)	1.127	.229		4.916			
TS	.077	.047	.089	1.630			
SDL	.222	.052	.259***	4.262			
SE	.220	.062	.209***	3.547			
OP	.198	.071	.190**	2.774	.360	.352	45.076***

Conclusion

- Learners' self-regulation skills were found to be significantly related to all three dimensions of learning engagement.
- Self-efficacy and perceived usefulness were significantly associated with cognitive and emotional engagement, but not behavioral engagement.
- Teacher support made a significant contribution only to behavioral engagement, not cognitive and emotional engagement.
- Only students with different majors had a statistical difference on behavioral engagement, emotional engagement, self-regulation skills, teacher support , and self-efficacy, not on cognitive engagement and perceived usefulness.

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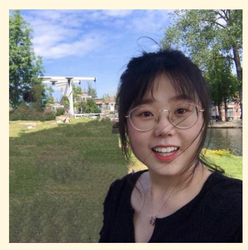

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