

The effects of students' perceived teacher autonomy support, self-efficacy, task value, and achievement emotion on school engagement of college students in Taiwan

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Outline



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Introduction

- School engagement has been found to relate to the achievement of student learning and also to be highly connected to students' academic achievement.
- Because school engagement was found to be related to knowledge and cognitive development, and in order to use appropriate teaching strategies and to establish the suitable teaching environment, educators need to have in-depth understanding of the internal and external factors that associate with students' school engagement.



Therefore, it is necessary to investigate the internal and external factors that affect college students' school engagement.

Introduction

- Although there have been some research exploring the impact of self-efficacy and task value on school engagement, the relationship between teacher autonomy support and students' learning motivation (e.g. self-efficacy, task value) still needs to be clarified.
- Furthermore, the role of achievement emotion on an individual's school engagement is also investigated in the current study.

Purpose

- This current study discussed the relationships and mechanism among teacher autonomy support, self-efficacy, task value, achievement emotion, and students' school engagement.
- Moreover, we also explored the mediating effects of self-efficacy, task value, and achievement emotions between teacher autonomy support and school engagement.

- The research questions are listed as below:
 1. Whether teacher autonomy support is associated with students' self-efficacy and task value.
 2. Whether self-efficacy is related to students' achievement emotion and school engagement.
 3. Whether task value has an impact on students' achievement emotion and school engagement.
 4. Whether college students' achievement emotion is linked to school engagement.

Method

Participants

- The research instrument was the questionnaire of Collegiate Learning Outcomes Assessment developed by the National Sun Yat-Sen University.
- The data included 2,546 college students from 21 different departments.

	CFA
Teachers' autonomy support	$\chi^2 (9, N = 2564) = 312.09, p < .05, RMSEA = .12$ 、GFI = .96、AGFI = .91、NFI = .97、NNFI = .95、CFI = .97、IFI = .97
Self-efficacy	$\chi^2 (2, N = 2564) = 118.97, p < .05, RMSEA = .15$ 、GFI = .98、AGFI = .89、NFI = .97、NNFI = .92、CFI = .99、IFI = .99
Task value	$\chi^2 (6, N = 2564) = 55.94, p < .05$ 、RMSEA = .057、GFI = .99、AGFI = .97、NFI = 1.00、NNFI = .99、CFI = 1.00、IFI = 1.00
Achievement emotion	$\chi^2 (0, N = 2564) = 0.0, p = 1.00$, the model is saturated, the fit is perfect.
School engagement	$\chi^2 (205, N = 2564) = 3945.17, p < .05$ 、RMSEA = .08、GFI = .88、AGFI = .85、NFI = .97、NNFI = .97、CFI = .97、IFI = .97.

Data analysis


- This study conducted statistical analysis using LISREL8.52 and tested the five hypotheses using structural equation modeling (SEM).



Results

Overall model fit

$\chi^2(58, N = 2546) = 1788.37$	$p < .05$
GFI = 0.90	>.90
NFI = 0.97	>.90
NNFI = 0.95	>.90
CFI = 0.97	>.90
RFI = 0.95	>.90
IFI = 0.97	>.90
PNFI = 0.72	> .50
PGFI = 0.58	> .50



All of these indicator reveal that this theoretical model provided an excellent overall fit of the observed data

variable	factor loadings	individual item reliabilities	composite reliabilities
teachers' autonomy support			0.81
TAS-1	0.84	0.71	
TAS-2	0.81	0.66	
self-efficacy			0.84
SE-1	0.78	0.61	
SE-2	0.91	0.83	
task value			0.85
TV1	0.80	0.64	
TV2	0.84	0.71	
TV3	0.78		
achievement emotion			0.80
AE1	0.80	0.64	
AE2	0.86	0.74	
school engagement			0.85
BE	0.74	0.55	


 this theoretical model exhibited a good fit to the internal structure of the model.

Full Model

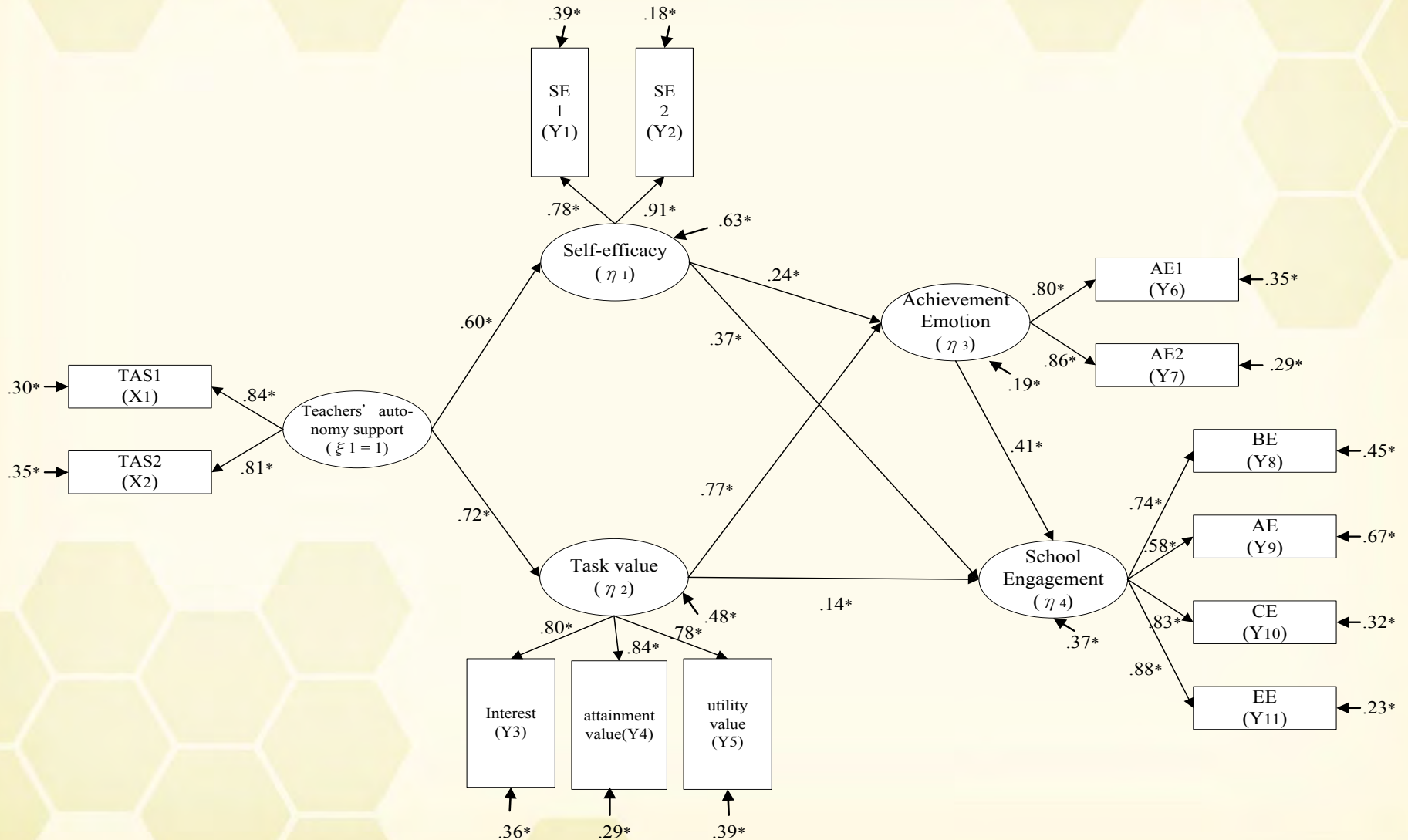


Fig 1. The complete standardized path coefficients and significance tests of the theoretical model.



Conclusions

Conclusions

- The result shows that teacher autonomy support did have direct effects on self-efficacy and task value; it also had indirect effects on achievement emotion and school engagement through self-efficacy and task value.
- Specifically, the more frequently the teachers can communicate with students, understand students' learning progress, provide their students the chances of making their own decisions, offer prompt feedbacks, and reduce the use of force-teaching methods, the higher the chance that students can enhance their learning motivations such as self-efficacy and task value.

Conclusions

- Next, self-efficacy and task value not only had direct effects on achievement emotion and school engagement, but also had an indirect effect to school engagement through achievement emotion.
- Lastly, achievement emotion had a direct effect on school engagement. If the students had more positive emotion, they tended to engage in learning more actively.

Conclusions

- According to the result, here are some suggestions for learning guidance:
 1. Establish a highly self-supportive learning environment.
 2. Help assisting students to build actively adapted self-efficacy belief.
 3. Help assisting students to enhance the sense of task value from learning.
 4. Provide high-quality course design and positive learning environment for students to experience positive achievement emotion.

Thanks for your attention

