Author Accepted Manuscript (AAM)

Article Title	**The integration of learning experiences: a test of career self-management model**
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Journal	Journal of Applied Research in Higher Education
Year	2025
Volume / Issue / Pages	Vol. 17, No. 5, pp. 2225–2240
DOI	https://doi.org/10.1108/JARHE-09-2023-0447
Accepted for publication	14 September 2024

Publication Statement

This is the author accepted manuscript (AAM) of the article published in Journal of Applied Research in Higher Education. The final published version is available at the DOI link above.

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Journal of Applied Research in Higher Edu

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Journal:	*Journal of Applied Research in Higher Education*
Manuscript ID	JARHE-09-2023-0447.R3
Manuscript Type:	Research Paper
Keywords:	Social Cognitive Career Theory, Career Self-Management Model, Learning Experiences, Self-efficacy

The Integration of Learning Experiences: A Test of Career Self-Management Model

Abstract

Purpose: This paper aims to examine the integration process by which learning experiences contribute to the development of self-efficacy, with a specific focus on the mediating role of positive and negative emotions.

Design/methodology/approach: This study used path analysis to explain five plausible models that describe the relationships between learning experiences. Data were collected and analyzed from Korean undergraduate samples.

Findings: The results showed that positive and negative emotions mediate the relationship between verbal persuasion, mastery experiences, vicarious learning and self-efficacy. The results also revealed that verbal persuasion significantly affects mastery experiences, highlighting the unique contribution of vicarious learning.

Practical Implications: This study underscores the importance of incorporating diverse learning experiences into university career intervention programs. To foster self-efficacy, it is crucial to provide young students with opportunities to engage in informal career development activities that promote emotional interpretation, starting from early childhood.

Research limitations: This cross-sectional study limits causal inferences. Future research should utilize longitudinal designs and consider diverse cultural contexts.

Originality/Value: This study sheds light on how students' learning experiences increase self-efficacy within the context of career exploration and decision-making, specific focus on emotional interpretation.

Keywords: Social Cognitive Career Theory; Career Self-Management Model; Learning Experiences; Self-efficacy

Paper type: Research paper

Introduction

Recently, the world of work has experienced rapid evolution due to technological progress (Blustein et al., 2017; Hirschi, 2018). Accordingly, individuals engage in career exploration and decision-making throughout their career lifespan (Super et al., 1996). Career self-management model (CSM), a new model of the social cognitive career theory (SCCT) (Lent and Brown, 2013), describes this non-linear and non-hierarchical career development. Unlike earlier models of SCCT, CSM focuses on how individuals manage their own career process, regardless of specific professions or industries.

Learning experiences (LEs) is considered as a key source of self-efficacy within CSM (Lent et al., 2016). LEs consists of 5 factors: verbal persuasion, mastery experience, vicarious learning, positive emotions and negative emotions. CSM emphasizes LEs as a key factor in predicting self-efficacy. However, prior studies have mostly focused on the direct relationships between them (Lent et al., 2016; Lent et al., 2017; Ireland & Lent, 2018). The questions of how LEs interact with each other and influence self-efficacy in the framework of CSM have long been overlooked. We propose that positive and negative emotions mediated the relationship between LEs and self-efficacy. According to Ireland (2017), LEs would be emotionally neutral and be likely to influence the development of self-efficacy after emotional interpretation.

Prior research (Bike, 2013; Fredrickson, 2001; Fredrickson & Branigan, 2005; Pekrun et al., 2002; Pekrun, 2006; Askew and Field, 2007) has explored the relationship between LEs and self-efficacy. Based on this previous literature, this study develops five plausible hypotheses to examine the relationship between LEs and self-efficacy within the context of CSM. Further, this study explores the role of emotions in the development of self-efficacy.

The remainder of this article is structured as follows: in the next section, this paper review both theoretical and empirical literatures on LEs, and build the hypotheses based on prior studies; then, this study address the data, measurement, and methods used in this analysis; the next part reports the result of the analysis of the relationships between LEs and self-efficacy; in the final section, we summarize our conclusions and provide theoretical and practical implications.

Theory and Hypothesis Development

Theoretical Framework of LEs

Social cognitive theory (Bandura in 1977), is the foundational framework for this study. According to this theory, individuals develop self-efficacy through the cognitive processing of information related to their own abilities, referred to as LEs. Bandura (1977) identified four sub-factors that comprise LEs: mastery experience, vicarious learning, verbal persuasion, and emotional arousals. Mastery experience evaluates an individual's successes and failures, and it has the strongest predictive power for self-efficacy. Vicarious learning refers to the acquisition of information from observing the achievements of role models. This helps to develop self-efficacy by offering examples and transferring abilities, while also enabling social comparison. Verbal persuasion by important people (Bandura, 1977) enables individuals to be convinced of their abilities. Emotional arousals refer to the psychological states exhibiting proficiency in a specific area.

Though Bandura (1977) did not explicitly address the integration of the four learning experiences, his claim that each factor of LEs could be structurally related implies that there would be a mediating or moderating relationship between these factors (Pfitzner-Eden F., 2016). Meanwhile, the recent literature (Bike, 2013; Lent et al., 2017) suggest that the impact of emotional arousal has been examined primarily in relation to negative emotions. Therefore, this study differentiates between positive emotions and negative emotions in examining their roles in the development of self-efficacy.

The Integration of LEs: Previous Studies and Current Study

To develop the hypotheses, this article conducted an extensive literature review on the SCCT CSM, specifically focusing on studies related to the integration of LEs. Furthermore, due to the lack of research on LEs within the SCCT CSM framework, this paper expanded to include studies related to other models within the SCCT framework. The studies were categorized into five distinct arguments.

Firstly, previous research has primarily considered LEs as an independent and a concurrent variable (Gerçek et al., 2023; Lent et al., 2016; Lent et al., 2017; Ireland and Lent, 2018; Zhou and Xu, 2021). However, Lent et al. (2017) suggested that some factors of LEs could either enhance or restrict other factors of LEs. Henson

(2002), Kalssen et al.(2011) and Pfitzner-Eden F.(2016) also argued for the need for more quantitative research examining the relationships between LEs. In short, there has been a consistent call for additional research on the interplay of LEs.

Secondly, prior studies also have suggested that verbal persuasion could influence self-efficacy through mastery experience. Since verbal persuasion requires a basis for preceding performance, successful achievements serve as the foundation for both verbal persuasion and mastery experience (Ahn et al., 2017; Morris and Usher, 2011; Mulholland and Wallace, 2001). The factor analysis showed that the items of two factors loaded into one factor (Chang et al., 2023; Ireland and Lent, 2018; Lent et al., 1996; Lent et al., 2017). Klassen and Durksen (2014) suggested that individuals use feedback from others to guide their judgment of their own performance. Gale et al. (2021) and Marschall (2023) argued that social validation of success could amplify the significance of a successful experience. The lack of precise criteria for evaluating success or failure in career exploration and decision-making leads individuals to rely on input from trusted others (Ireland and Lent, 2018).

Thirdly, previous research indicated mastery experiences can influence on self-efficacy through various channels, including verbal persuasion, vicarious learning, positive emotions, and negative emotions. Tschannen-Moran et al. (1998) suggested that emotional arousals can influence self-efficacy through mastery experience. Hoy and Spero (2005) stated that vicarious learning can enhance mastery experience, which in turn can lead to higher self-efficacy. Prior research suggests that verbal persuasion can significantly contribute to enhancing mastery experience and subsequently improving self-efficacy (Mulholland and Wallace, 2001; Klassen and Durksen, 2014; Morris and Usher, 2011). Furthermore, Pfitzner-Eden (2016) suggested mastery experience plays a significant role in mediating other LEs, enhancing self-efficacy.

Fourth, prior studies have established that vicarious learning is a distinct factor different from other LEs. Previous research has argued that there is a two-factor structure of LEs where the first factor represents direct experiences (such as verbal persuasion, vicarious learning, and emotional arousals) and the second factor represents indirect experience (vicarious learning) (Lent et al., 1991; Lent et al., 1996; Garriott et al., 2021; Sheu et al., 2018).

Fifthly, this study proposes that positive and negative emotions mediate the relationship between verbal persuasion, mastery experience, vicarious learning and self-efficacy. However, there has been limited research on the role of positive and negative emotions as mediators within the SCCT framework. Self-regulation theory argues

that inadequate accomplishment could lead to negative emotions and distress, inhibiting the self-regulation process (Pekrun et al., 2002; Pekrun, 2006). Moreover, Askew and Field (2007) claims that vicarious learning could contribute to the development of negative emotions. Based on the positive psychology literature (Fredrickson, 2001; Fredrickson & Branigan, 2005), this study explores the potential differences in the ways positive and negative emotions influence self-efficacy.

This study investigated how individuals translate LEs into the development of self-efficacy, drawing upon previous research. This study also aimed to examine the relationships among the five models, leading to the development of cumulative models that integrate the key concepts and provide a more comprehensive understanding of the development of self-efficacy.

- Hypothesis 1: Each individual LE has a significant relationship with self-efficacy, independent of the effects of other LEs (**the parallel model).**

- Hypothesis 2: Verbal persuasion has a positive relationship with mastery experience (the **VP as a cause model)**.

- Hypothesis 3: There is a significant relationship between verbal persuasion, vicarious learning, positive emotions, negative emotions and mastery experience (**ME as an outcome model)**.

- Hypothesis 4: Vicarious learning has a positive relationship with self-efficacy, independent of the effect of other direct LEs (**VL as an independent cause model)**. This hypothesis asserts that vicarious learning has a distinct impact on.sefl-efficacy, separate from the impact of other direct LEs.

- Hypothesis 5: Positive emotions and Negative emotions mediate the relationship between verbal persuasion, mastery experience, vicarious learning on self-efficacy (the **emotions as an outcome model).**

Table 1.

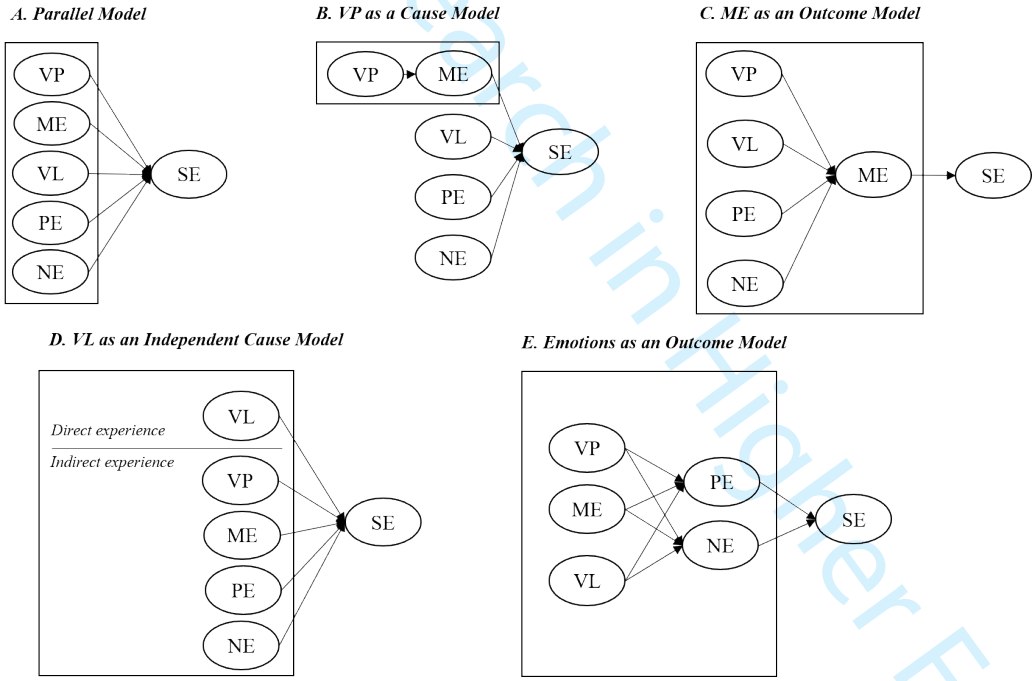
Summary of Literature Review

Topic	Previous studies

A. Parallel Model	Gerçek *et al.*, 2023; Henson, 2002; Ireland and Lent, 2018; Klassen *et al.*, 2011; Lent *et al.,* 2016; Lent *et al.,* 2017; Pfitzner-Eden F., 2016; Zhou and Xu, 2021
B. VP as a Cause Model	Ahn *et al.,* 2017; Gale *et al.,* 2021; Chang *et al.,* 2023; Ireland and Lent, 2018; Klassen and Durksen 2014; Lent *et al.,* 1996; Lent *et al.,* 2017; Marschall, 2023; Morris and Usher, 2011; Mulholland and Wallace, 2001;
C. ME as an Outcome Model	Tschannen-Moran et al., 1998; Hoy and Spero, 2005; Mulholland and Wallace, 2001; Klassen and Durksen, 2014; Morris and Usher, 2011; Pfitzner-Eden F., 2016
D. VL as an Independent Cause Model	Garriott *et al.*, 2021; Lent *et al*., 1991; Sheu *et al.,* 2018
E. Emotions as an Outcome Model	Bike, 2013; Fredrickson, 2001; Fredrickson & Branigan, 2005; Pekrun *et al.*, 2002; Pekrun, 2006; Askew and Field, 2007

Figure 1.

The Conceptual Framework for the Integration of Learning Experiences



Note. VP = Verbal Persuasion; ME = Mastery Experience; VL = Vicarious Learning; PE = Positive Emotions; NE = Negative Emotions

Method

Participants and procedure

The research was conducted among undergraduate students in Korea, with an estimated population of 1,467,125 (The Korean Educational Development Institute, 2018). A simple random sampling technique was employed to ensure a representative sample across university locations, genders, and majors. A total of 600 students were invited to participate in a voluntary, anonymous survey via mail or online from October 1 to November 19, 2018. The survey included information about the study and ensured the participants' confidentiality. A total of 529 surveys were received, resulting in a response rate of 88.2%. **Table 2** provides a detailed overview of the sociodemographic characteristics of the participants.

Table 2.

Demographics of the Participants

Sample characteristics		Count (n)	Ratio (%)
Gender	Male	298	56.3
	Female	231	43.7
Grade	Freshman	76	14.4
	Sophomore	95	18.0
	Junior	161	30.4
	Senior:	197	37.2
Major	Humanities & Social Science	328	62.0
	Science & Engineering	201	38.0
Location of university	The metropolitan area	246	46.5
	other provinces	283	53.5

Note. N=529

Measurements

This research focused on the integration of LEs within the context of CSM, analyzing variables such as LEs, self-efficacy, outcome expectation, and exploratory goals. All scales demonstrated adequate internal consistency (Cronbach's alpha ranging from .70 to .92, shown in **Table 3**), and the scores were normally distributed. Correlation analysis, exploratory factor analysis, confirmatory factor analysis, and path analysis were conducted with R 3.6.1.

Table 3.

Correlations, Means, Standard Deviations, and Internal Consistency Estimates

Variable	LE					SE	OE	EG	M	SD	α
	ME	VP	VL	PE	NE						
LE											
ME	-								3.37	0.81	.85
VP	0.74***	-							3.26	0.81	.87
VL	0.33***	0.41***	-						3.20	0.88	.86
PE	0.35***	0.30***	0.35***	-					3.10	0.71	.70
NE	-0.20***	-0.21***	-0.05	-0.10*	-				2.70	0.95	.86
SE	0.51***	0.46***	0.34***	0.47***	-0.26***	-			3.68	0.67	.92
OE	0.29***	0.28***	0.19***	0.27***	-0.04	0.41***	-		3.99	0.53	.87
EG	0.19***	0.23***	0.27***	0.27***	0.16***	0.23***	0.33***	-	3.84	0.62	.87

Note. LE = Learning Experiences; ME = Mastery Experience; VP = Verbal Persuasion; VL = Vicarious Learning; PE = Positive Emotions; NE = Negative Emotions; SE = Self-Efficacy; OE = Outcome Expectation; EG = Exploratory Goals; N = 529, ***p<.001, **p<.01, *p<05.

LEs and exploratory goals (5 new items) were translated into Korean. Content validity and the construct validity of the translated scales were then verified by two Ph.D. experts in education. The original questions related to self-efficacy, outcome expectation, and exploratory goals were also revised and verified.

LEs

LEs were assessed with the 5-point scale, 20-item brief form of the Career Exploration and Decision-Making Learning Experiences (CEDLE) scale (Lent *et al.*, 2017). It consisted of 4-item measures for each of LEs (mastery experience, vicarious learning, verbal persuasion, positive emotions, and negative emotions).

Self-efficacy

Self-efficacy was measured using the 5-point scale, 8-item brief form of the Career Exploration and Decision Self-Efficacy scale (CEDSE-BD; Lent *et al.*, 2016). Originally, the 5-point scale ranged from 0 to 4, but, like Lent *et al.* (2017), they were converted it from 0-4 to 1-5.

Outcome Expectation

The outcome expectation scale consisted of seven items measuring intrinsic outcomes and five items measuring extrinsic outcomes. The scale was originally developed by Lent et al. (2013) to measure outcome expectation among engineering undergraduates. For this study, the scale was adapted to measure outcome expectation related to career exploration and decision-making. The original version of the scale was translated into Korean by Kim (2014). For this research, the scale was further revised and adapted to measure outcome expectations in the context of career exploration and decision-making. Lent et al. (2013) originally used a 10-point scale, but for consistency, the scale was converted to a 5-point scale following Kim (2014).

Exploratory Goals

Exploratory goals were measured with the scales by Lent et al. (2017). This scale, originally developed by Betz and Voyten (1977), was expanded by Lent et al. (2017) to include five additional items, which improved the reliability estimates of the scale. The scale utilized a 5-point rating scale.

Analysis – Model Testing

To evaluate the proposed models, a parallel model was constructed as a baseline. Comparisons were then made between the parallel model and the VP as a cause model, Me as an outcome model, and VL as an independent cause model. Finally, 'the emotions as an outcome model' was compared to the other models. As proposed models were not nested, the $\mathbf{X^2}$-difference test could not be used. Therefore, model fit was evaluated using a multi-index approach (Hu and Bentler, 1999). The research examined various incremental fit indices, such as NFI, IFI, TLI, and CFI, with a predetermined threshold of .90. Additionally, $\mathbf{X^2}$ was examined and both the GFI and adjusted GFI (AGFI) were evaluated using a threshold value of .90. A criterion of .10 was used to evaluate the RMSEA, whereas a threshold of .08 was used to examine the SRMR. These threshold values align with the criteria specified in Browne and Cudeck (1992) and Hu and Bentler (1999).

Results

To account for the significant intercorrelations among the LEs, all LEs were allowed to covary one another to achieve a more precise estimation. Only the 'Emotions as an outcome model' demonstrated a good fit, as indicated by the model fit indices presented in **Figure 2, Figure 3 and Table 4**). These findings imply that it is important to consider the influence of emotions in the development of self-efficacy. The focus of this study was on the variance explained and the coefficients related to LEs and self-efficacy.

Parallel Model: Poor Fit with Concurrent LEs

The parallel model showed a poor fit: $\chi^2(10, N=529)=78.685$, $p < .001$; GFI = .966; AGFI = .897; RMSEA=.114; SRMR= .067; NFI = .845; IFI = .862; CFI= .860 , as shown in Model A of Figure 2. The analysis revealed a significant relationship between LEs and self-efficacy, except for verbal persuasion, which did not have a significant impact on self-efficacy. The results showed a significant positive relationship between mastery experience and self-efficacy (β=.27, p <.001), as well as significant effects of vicarious learning (β=.10, p < .05), positive emotion (β=.30, p < .001), and negative emotion (β=-.15, p < .001) on self-efficacy. Furthermore, 40% of the variation in self-efficacy could be accounted for by five LEs.

VP as a Cause Model: Poor Fit with Mediated Impact of Verbal Persuasion

This model exhibited a poor fit: $\chi^2(13, N=529)=103.295$, $p < .001$; GFI = .956; AGFI = .878; RMSEA=.115; SRMR= .074; NFI = .892; IFI = .904; CFI= .903. Model B of Figure 2 indicated that verbal persuasion accounted for 55% of the variance in mastery experience (β=-.74, p < .001). The findings also indicated a significant positive relationship between mastery experience and self-efficacy (β = .27, p < .001), a significant relationship between vicarious learning and self-efficacy (β = .10, p < .05), and significant associations between positive emotion ((β = .31, p < .001) and negative emotion (β = -.15, p < .001) with self-efficacy. However, the impact of verbal persuasion on self-efficacy did not produce statistically significant results. The variance in self-efficacy (R^2=.38) was accounted for by LEs.

ME as an Outcome Model: Poor Fit with Mastery Experience as Mediator

This model exhibited a poor fit: $\chi^2(11, N=529)=82.150$, $p < .001$; GFI = .964; AGFI = .883; RMSEA=0.111; SRMR= .067; NFI = .914; IFI = .924; CFI= .924. Model C of Figure 2 indicated that 57% of the variance in mastery experience was explained by the other LEs. The results showed a significant positive relationship between verbal persuasion and mastery experience (β = .68, p < .001), a significant positive relationship between positive

emotion and mastery experience (β = .14, p < .01), and a significant negative relationship between negative emotion and mastery experience (β = -.09, p < .001), while no significant impact of vicarious learning on mastery experience was found. The results also showed a significant positive relationship between mastery experience and self-efficacy (β = .27, p < .05). Additionally, a significant positive relationship between vicarious learning (β = .10, p < .001), positive emotion (β = .31, p < .001), and negative emotion (β = -.10, p < .001) with self-efficacy was found. However, no significant impact of verbal persuasion on self-efficacy was found. The LEs explained 39% of the variance in self-efficacy.

VL as an Independent Cause Model: Poor Fit with Direct Impact of Vicarious Learning

The model showed a poor fit: χ^2(13, N=529)=103.295, p < .001; GFI = .966; AGFI = .890; RMSEA=0.108; SRMR= .067; NFI = .917; IFI = .928; CFI= .927. Model D of Figure 3 indicated that verbal persuasion, positive emotion, and negative emotion collectively explained 57% of the variance in mastery experience. The results showed a significant positive relationship between verbal persuasion (β = .69, p < .001) and mastery experience, and between positive emotions (β = .34, p < .01) and mastery experience, while no significant impact of negative emotions on mastery experience was found. The results also showed a significant positive relationship between vicarious learning and self-efficacy (β = .10, p < .01). Additionally, a significant positive relationship between mastery experience (β = .27, p < .001) and self-efficacy, a significant positive relationship between positive emotions (β = .30, p < .001) and self-efficacy, and a significant negative relationship between negative emotions (β = -.15, p < .001) and self-efficacy were found. However, no significant impact of verbal persuasion on self-efficacy was found. The LEs explained 40% of the variance in self-efficacy.

Emotions as an Outcome Model: Reasonable Fit with Emotions as Mediators

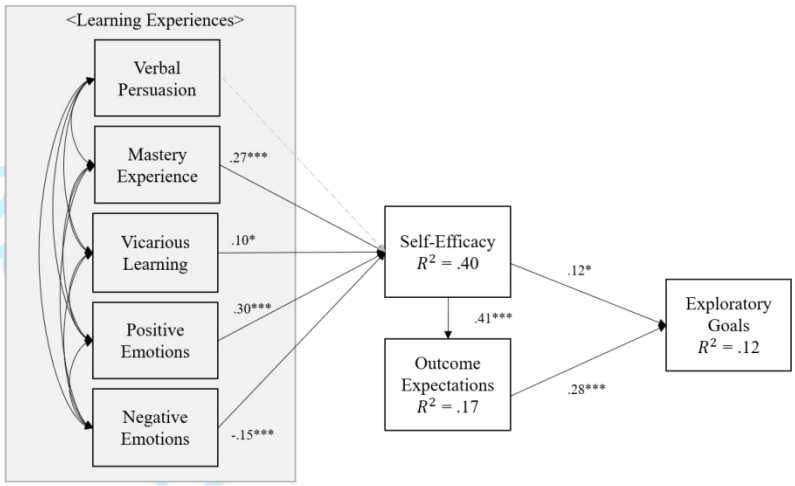
This model revealed a good fit: χ^2(14, N=529)=85.186, p < 0.001; GFI = 0.956; AGFI = 0.910; RMSEA=0.098; SRMR= 0.069; NFI = 0.920; IFI = 0.932; CFI= 0.931. This model investigated the mediating role of positive and negative emotions in the relationship between verbal persuasion, mastery experience, vicarious learning on self-efficacy. Model E of Figure 3 indicated that verbal persuasion accounted for 55% of the variance in mastery experience. Further, the effect of verbal persuasion on mastery experience was significant (β=.74, p <.001). The findings indicated that 18% of the variance in positive emotions and 4% of the variance in negative emotions were explained by vicarious learning and mastery experience. Vicarious learning had a

significant positive effect on positive emotions (β =.27, p <.001), while mastery experience also had a significant positive effect on positive emotion (β =.26, p <.001) and a significant negative effect on negative emotion (β = -.21, p <.001). However, no significant effect of vicarious learning on negative emotion was found. Further, mastery experience (β =.26, p <.001), vicarious learning (β =.10, p <.05), positive emotion (β =.30, p <.001), and negative emotion (β = -.15, p <.001) were found to have a positive influence on self-efficacy, while verbal persuasion did not have a significant impact. The LEs explained 39% of the variance in self-efficacy.

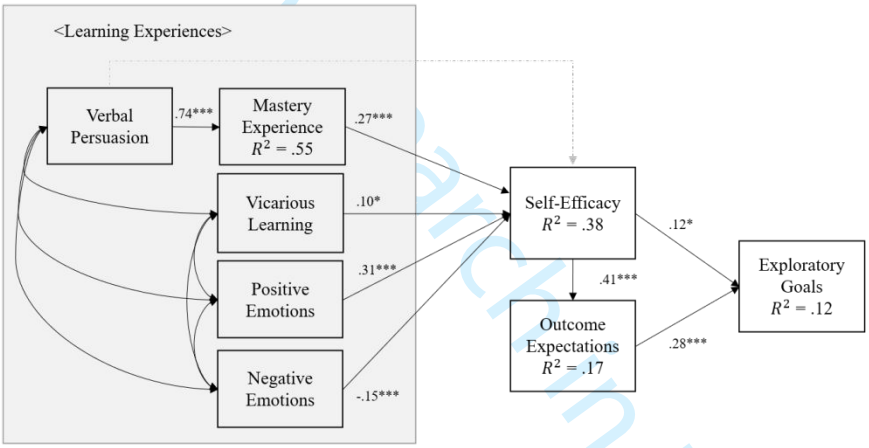
Figure 2.

The Results of Path Analysis of the Competing Models(1)

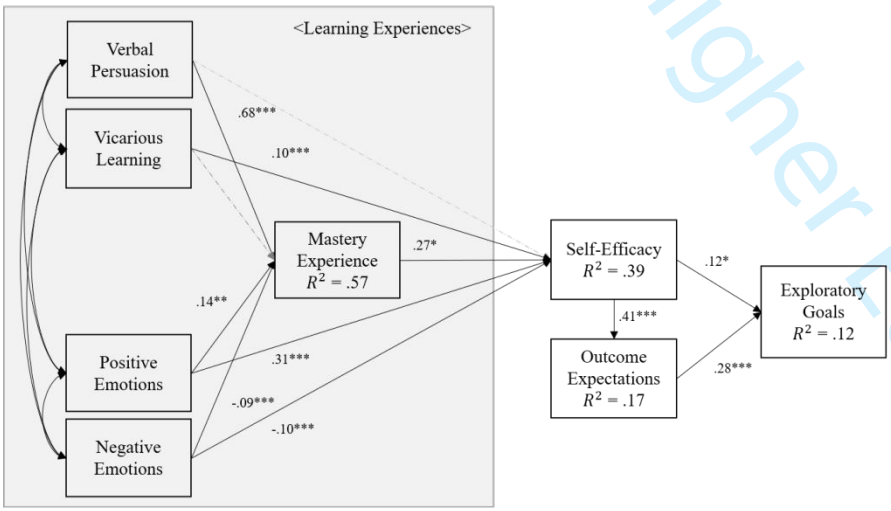
A. Parallel Model



B. VP as a Cause Model



C. ME as an Outcome Model

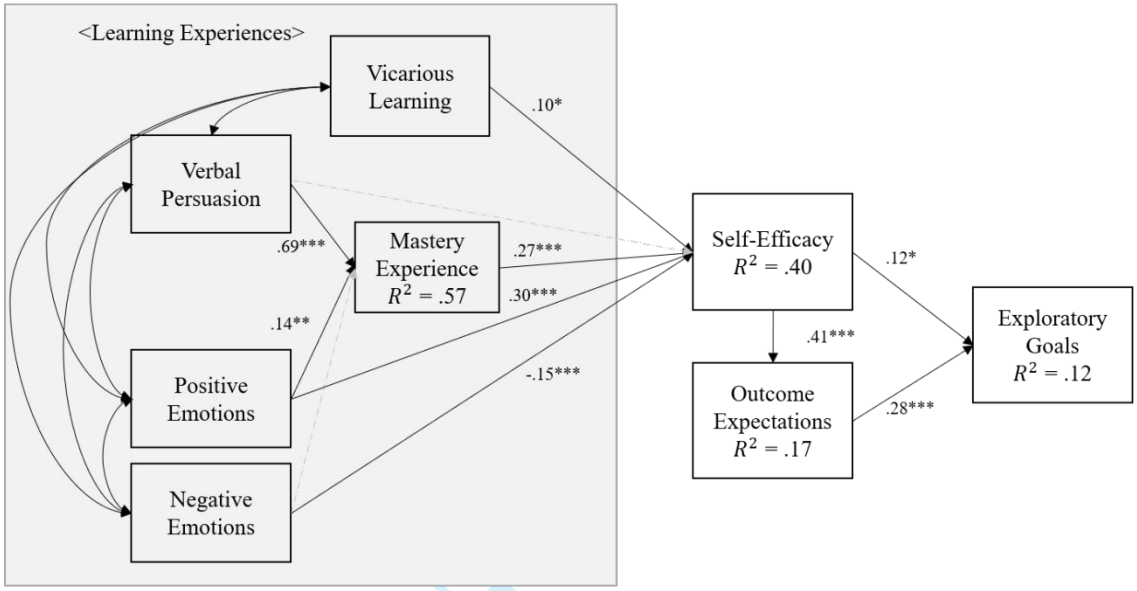


Note. Standardized estimates are presented. The dotted lines indicate the parameters that were not significant at the 0.05 level. *p < 0.05; ** p < 0.01; ***p < 0.001(two-tailed).

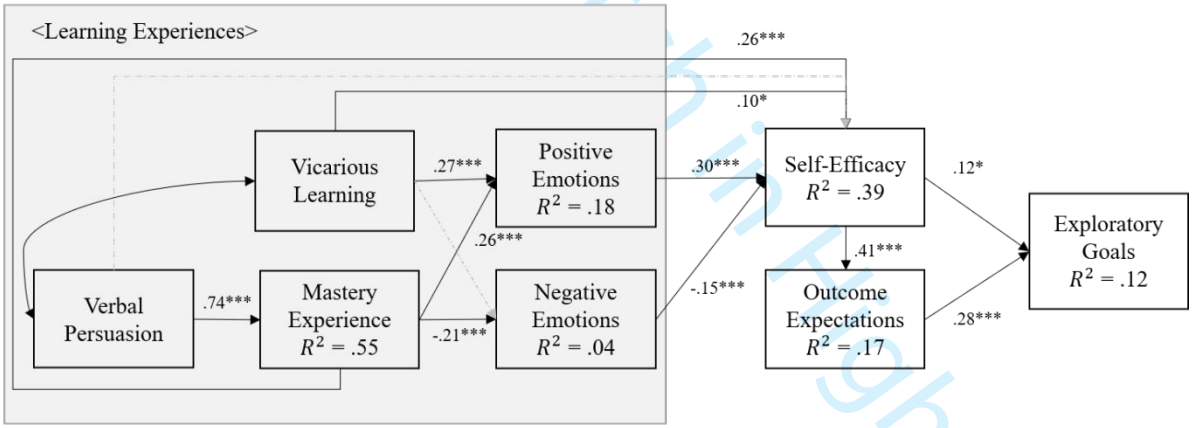
Figure 3.

The Results of Path Analysis of the Competing Models(2)

D. VL as an Independent Cause Model



E. Emotions as an Outcome Model



Note. Model D was constructed as a model involving Model B (Hypothesis 2) and Model C (Hypothesis 3). Model E was also constructed as a model involving Model B (Hypothesis 2), Model C (Hypothesis 3) and Model D (Hypothesis 4).; Standardized estimates are presented. The dotted lines indicate the parameters that were not significant at the 0.05 level. *p < 0.05; ** p < 0.01; ***p < 0.001 (two-tailed).

Table 4.

The Model Fit for the Competing Models

Model	X^2	df	GFI	AGFI	RMSEA	SRMR	NFI	IFI	CFI
A. Parallel Model	78.685 ***	10	0.966	0.879	0.114	0.067	0.845	0.862	0.860
B. VP as a Cause Model	103.295 ***	13	0.956	0.878	0.115	0.074	0.892	0.904	0.903
C. ME as an Outcome Model	82.150 ***	11	0.964	0.883	0.111	0.067	0.914	0.924	0.924
D. VL as an Independent Cause Model	103.295 ***	13	0.966	0.890	0.108	0.067	0.917	0.928	0.927
E. Emotions as an Outcome Model	85.186 ***	14	0.965	0.910	0.098	0.069	0.920	0.932	0.931

Notes. ME = Mastery Experience; VP = Verbal Persuasion; VL = Vicarious Learning; ***p<.001, **p<.01, *p<05.

Discussion

Rapid changes in the work environment have highlighted the critical role of career self-management in ensuring career success (Lent et al., 2013). Research has emphasized the importance of LEs as a key predictor of self-efficacy (Bike, 2013; Lent *et al*., 2017). This study sought to explore the process by which LEs integrate with each other to foster self-efficacy within the context of CSM.

The findings suggest that positive emotions mediate the relationship between learning experiences and self-efficacy, while negative emotions have a negative influence on this relationship. This implies that individuals who experience higher levels of positive emotions and lower levels of negative emotions are more likely to have higher levels of self-efficacy. The findings also suggest that verbal persuasion plays a significant role in the development of mastery experiences, highlighting the unique contribution of vicarious learning.

First, previous research has primarily focused on the direct influence of LEs on self-efficacy (Ehiobuche, 2024). However, career researchers have called for a more nuanced understanding of the relationships among LEs (Bandura, 1997; Bruce & Ross, 2008; Morris et al., 2017; Yada et al., 2019). This study contributes to the existing literature on the SCCT-CSM framework by examining the integration process of LEs and their influence on self-efficacy.

Second, this study contributes to the literature by highlighting the role of emotions in career exploration and decision-making. While previous research has largely considered the five factors of learning experiences (LEs) as independent variables, this study reveals that both positive and negative emotions mediate the relationships between these LEs and self-efficacy. Each factor of LEs remains emotionally neutral and is likely to influence the development of self-efficacy after emotional interpretation (Ireland, 2017). Individuals construct a self-perception by developing either positive or negative feelings which are acquired through either direct or indirect experiences.

Interestingly, the model explained only 4% of the variance in negative emotions, supporting the suggestion that negative emotions may develop differently than positive emotions (Ireland and Lent, 2018). Previous research suggested that negative emotions reflect broader personality factors, such as neuroticism or extraversion, as outlined in the Big Five theory (Gati *et al.*, 2011; Hacker *et al.*, 2013). This finding suggests that negative emotions may be driven more by personality traits rather than external environmental factors like mastery experience or

vicarious learning.

This study provides empirical evidence supporting the relationship between verbal persuasion and mastery experience (Ahn *et al.*, 2017; Morris and Usher, 2011; Mulholland and Wallace, 2001). While previous research has considered these two variables as independent and concurrent (Lent *et al.*, 20 016; Lent *et al.*, 2017; Ireland and Lent, 2018), this study confirms a significant relationship between them and emphasizes their relational properties. This finding suggests that the SCCT CSM model could be expanded to incorporate the internal dynamics of LEs, particularly the relationship between verbal persuasion and mastery experience (Mulholland and Wallace, 2001; Klassen and Durksen, 2014). Further, research has demonstrated that verbal persuasion can have different effects on self-efficacy depending on the source of feedback (Ahn *et al*., 2016; Ahn *et al.,* 2017). Therefore, future research and practical applications should investigate the influence of verbal persuasion on the mastery experience across various social channels.

The findings suggest that vicarious learning, while distinct from other learning experiences, can have a significant impact on self-efficacy, regardless of mastery experience or verbal persuasion. hese findings support the two-factor model of learning events proposed by Lent et al. (1991), where direct experiences (e.g., mastery experience, verbal persuasion) and indirect experiences (vicarious learning) contribute to self-efficacy development individually. Additionally, the results indicate that mastery experience has a stronger influence on self-efficacy compared to vicarious learning, further supporting Lent et al. (1991)'s assertion that direct experience can provide a more comprehensive explanation of self-efficacy.

Practical Implications

This research suggests that university career guidance programs should be expanded to incorporate the various aspects of LEs. While current career development programs often focus on self-awareness and career exploration, this research emphasizes the importance of considering students' unique backgrounds and assisting them in interpreting their past experiences within the context of career exploration and decision-making. To foster self-efficacy, this study underscores the importance of informal career development support, starting from early childhood. This research suggests that parents, teachers, and community members should provide sufficient opportunities for young students to engage in informal career development activities (Keller and Whiston, 2008; Han and Cho, 2016) in a way that encourages them to emotionally interpret diverse career experiences.

Limitations and Suggestions for Future Research

The cross-sectional design of this study limits the ability to draw causal inferences about the relationships between LEs and self-efficacy. Future research is recommended to validate the model using longitudinal designs. Further, research should prioritize collecting data from diverse cultural and contextual samples. Finally, future studies could refine the verbal persuasion items by incorporating different sources of feedback (Pfitzner-Eden F., 2016).

Conclusion

Given the rapid changes in the work environment, it is essential that undergraduate students actively engage in career self-management (Lent et al., 2016; Lent et al., 2017; Ireland and Lent, 2018). LEs are widely recognized as a significant factor in promoting self-efficacy within the context of career exploration and decision-making (Lent et al., 2016; Lent et al., 2017; Ireland and Lent, 2018). However, previous research has primarily focused on the direct impact of LEs on self-efficacy, highlighting the need for further investigation into the integration and impact of LEs on self-efficacy. This study found that both positive and negative emotions play a mediating role in the relationship between learning experiences and self-efficacy. Additionally, the results provided evidence for the influence of verbal persuasion on mastery experiences, highlighting the unique contribution of vicarious learning. These findings suggest implications for both university career guidance programs and informal career intervention strategies implemented throughout a student's life.

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