



International Journal of Educational Methodology

Volume 5, Issue 4, 567 - 575.

ISSN: 2469-9632

<http://www.ijem.com/>

Taiwanese University Students' Ideal L2 Selves and Autonomy: Does High School Program Make a Difference?

Yichen Lu

TransWorld University, TAIWAN

D. Ryan Berg*

TransWorld University, TAIWAN

Received: August 13, 2019 ▪ Revised: September 27, 2019 ▪ Accepted: October 10, 2019

Abstract: There has been an increased interest in L2 learners' motivation and autonomy over the past several decades, and both variables are recognized as characteristics of successful language learners. The L2 motivational self system (L2MSS) is a recent approach to L2 motivation research that sheds light on many aspects of a language learners' self. Additionally, autonomy is known to promote long-term foreign language learning success. Understanding these measures and what variables influence them can help educators determine how to best help their students achieve success in language learning. This study examines Taiwanese university students' ideal L2 selves and autonomy as measured on questionnaires. This study seeks to examine whether any differences exist between Taiwanese students who attended normal, comprehensive, or vocational high school programs in Taiwan. The results show that while differences exist and several of the L2MSS and autonomy variables are strongly correlated, there are no significant differences between students in these three groups. The results suggest that there may be other variables not measured in this study which do have an impact on a learners' L2MSS and/or autonomy.

Keywords: *Motivation, autonomy, L2 motivational self system, Taiwanese learners.*

To cite this article: Lu, Y., & Berg, D. R. (2019). Taiwanese university students' ideal L2 selves and autonomy: Does high school program make a difference? *International Journal of Educational Methodology*, 5(4), 567-575. <https://doi.org/10.12973/ijem.5.4.567>

Introduction

Over the past several decades, there has been an increased interest in examining learners' motivation and autonomy. Both variables have been recognized as important factors in learning and education and as characteristics of successful language learners. Motivation, for example, can have a great impact on L2 learners' learning outcomes. Driven by desire, traits, beliefs, and positive effect, "motivation is the process whereby goal-directed activities are instigated and sustained" (Schunk, Meece, & Pintrich, 2014, p. 5). Indeed, Cohen (2010) noted that motivation was one of the key components that determine how fast and well language learners learn an L2.

The L2 motivational self system (L2MSS; Dornyei, 2005, 2009) is a recent approach to L2 motivational research synthesized from the previous work of Gardner (1985), Noels, Pelletier, Clément, and Vallerand (2000), and Ushioda (2002). While Gardner's socio-educational model was the dominant theory of language learning motivation for many years, research in EFL contexts—where learners often have limited connections to native speakers and natural L2 environments—exposed the inadequacies of integrative orientation. Thus, EFL learners may lack an integrative orientation or a clear distinction of who owns the English language that they are learning (Dornyei, 2009). In today's globalized world, the integrative orientation lacks the ability to describe learners who are studying world Englishes for instrumental rather than integrative means (Dornyei, 1990; Warden & Lin, 2000).

Dornyei (2005) defined three main components of the L2MSS: the ideal L2 self, the ought-to L2 self, and the L2 learning experience. The ideal L2 self is the L2 speaker we would like to become; the ought-to L2 self is "the attributes that one believes one *ought* to possess (i.e., various duties, obligations, or responsibilities) in order to *avoid* possible negative outcomes" (pp. 105-106); finally, the L2 learning experience "concerns situation-specific motives related to the immediate learning environment and experience" (p. 106). While EFL learners may not have an integrative orientation, the L2MSS has been used in many studies with learners around the globe (see Dornyei & Ushioda, 2009, 2011). For example, Taguchi, Magid, and Papi (2009) performed a large-scale survey with Chinese, Japanese, and Iranian learners. Their findings first showed that the ideal L2 self had more explanatory power than the concept of an integrative

* Corresponding author:

D. Ryan Berg, TransWorld University, 1221 Zhennan Road, Douliu, Yunlin, Taiwan 64063. ✉ AFL.Ryan@gmail.com



orientation; the results also showed that Gardner's concept of instrumentality could be separated into instrumentality-promotion—associated with the ideal L2 self—and instrumentality-prevention—associated with the ought-to L2 self. Overall, their model fit the data well and accurately described their population: English learners of different cultural and educational backgrounds.

In Taiwan, however, there have been relatively few studies utilizing the L2MSS with EFL learners. Chu (2014), in examining 185 university students, found a positive correlation between their ideal L2 selves and their international posture. The findings showed that English learners in Taiwan relied heavily on their parents' expectations and preferences when choosing future goals and careers. Both Lo (2015) and Ko (2015) examined junior high school students. Lo qualitatively examined the L2 selves and international posture of both the learners and their parents, finding that the learners had a concept of their ought-to L2 self—shaped largely by their parents' expectations—but not their ideal L2 self. Ko examined the L2 selves of learners across urban and rural contexts, finding differences among the groups. She found that learners in an urban environment had stronger ideal L2 selves and instrumentality-prevention, while learners in a more rural environment had stronger ought-to L2 selves. Finally, Berg and Lu (2019) examined the relationship among L2 selves and language learning strategies with Taiwanese university English majors. They found many correlations between the measures of their L2MSS questionnaire and the Strategy Inventory for Language Learning (Oxford, 1990).

Autonomy is also a key factor in determining L2 learners' learning efficiency. Language learner autonomy has been investigated almost as long as motivation and is believed to promote long-term foreign language learning success (Little, 1995; Usuki, 2000). In more recent times, learners have been expected to more easily develop autonomy due to increasing applications of technology aiding learners and creating more connections to the L2 than before. Particularly in EFL settings where immediate and native sources for the L2 are not always available, learners must have autonomy to facilitate their own learning (Little, 1996).

The research on learner autonomy has gone through three main stages: beginning, divergence, and convergence (Wang, 2013). The beginning starts with Holec (1981), who defined autonomy as “the ability to take charge of one's own learning” (p. 3). Boud (1988) later added that students had to take “some significant responsibility for their own learning over and above responding to instruction” (p. 23). These early definitions of autonomy were mostly synonymous, but definitions soon began to diverge. Wenden (1991) proposed that autonomous learners should be capable of successfully deploying learning strategies and be familiar with knowledge about learning, thus introducing the concept of metacognition into autonomy. According to Wenden, autonomous learners embrace the attitude that enables them to use learning strategies and knowledge with confidence, flexibility, and appropriateness independent of the teacher. Little (1991) agreed that autonomy included metacognition but took it one step further, introducing the role of *metacognitive awareness*, which emphasized learners' psychological relations to the process and content of the learning situations. He argued that this metacognitive awareness was necessary for critical reflection and decision making.

Later, Little (1995) argued that autonomy included both motivational and metacognitive dimensions, but Littlewood (1996) argued that autonomy included ability and willingness. Ability was composed of both “*knowledge* about the alternatives from which choices have to be made and the necessary *skills* for carrying out whatever choices seem most appropriate” (p. 428), while willingness “depends on having both the *motivation* and the *confidence* to take responsibility for the choices required” (p. 428). As can be seen, the divergence phase of research on autonomy was marked by researchers creating their own definitions and concepts.

The convergence phase began with Sinclair (2000) summarizing the previous research on autonomy in order to form a more coherent whole. Sinclair saw autonomy as a human capacity which could be acquired and developed, a willingness to take responsibility, a type of metacognitive ability, a variable in different contexts, and something that could be interpreted differently in different cultures.

Studies of autonomy in Asian contexts have been done in China (Gan, Humphreys, & Hamp-Lyons, 2004; Gieve & Clark, 2005), Hong Kong (Braine, 2003; Chan, 2001; Chan, Spratt, & Humphreys, 2002; Littlewood, 1999, 2000), Japan (Aoki & Smith, 1999; Mineishi, 2010; Smith, 2001), and Taiwan (Chang & Geary, 2015; Y. Lo, 2010; Yang, 1998).

Yang (1998) created a 4-year learning strategy instruction course to promote learner autonomy. She reported that the instruction taught students “how to assess their own language proficiency, set goals, evaluate progress, and enable[d] students to experience greater overall autonomy in learning” (p. 133). Lo (2010) and Chang and Geary (2015) also looked at learners in Taiwan and found that creating reflective portfolios and keeping learning logs, respectively, could effectively promote learners' autonomy.

Throughout the research on autonomy in Asian contexts, one issue that has been repeatedly brought up is whether language learner autonomy is compatible with Asian learning contexts (Aoki & Smith, 1999; Ho & Crookall, 1995), which often are very much teacher dependent instead of student-centered. As such, the issue of autonomy among Asian learners of English has still not reached a consensus.

The distinction between autonomy and motivation is not clear. Motivation and autonomy have been tied together since the 1980s (McCombs & Whisler, 1989). Little (1996) also noted that learner autonomy required “a positive attitude to the purpose, content, and process of learning” (p. 204). Garcia and Pintrich (1996) also confirmed the relationship between autonomy and motivation when they found that “college students’ motivation, like that of the elementary school students discussed previously, was positively affected by the experience of autonomy” (p. 484).

Research continued throughout the 1990s; however, researchers in the 2000s were still finding links between motivation and autonomy (Spratt, Humphreys, & Chan, 2002; Usuki, 2001). Indeed, Spratt et al. (2002) found that “motivation may lead to autonomy or be a precondition for it” (p. 262). While much research has been done in the area of motivation and autonomy, there still exists some gap. While previous research in Taiwan has examined university students’ autonomy (e.g. Chang & Geary, 2015; Y. Lo, 2010), these were qualitative studies and did not quantitatively examine the data to determine any links between the variables. Furthermore, no research has examined the differences in autonomy and motivation in the Taiwan context that may be caused by different high school programs. This study seeks to fill that gap.

Research Questions

This study investigates Taiwanese university English majors’ ideal L2 selves and their levels of autonomy to examine whether any relationships exist among the variables of these measures and whether they differ or are affected by the high school program that the learners attended. This study, then, proposes the following research questions:

1. What variables comprise Taiwanese university English majors’ motivational self systems and autonomy?
2. Are there any correlations among or relationships between the variables of the motivational self system and autonomy?
3. Do the motivational self systems and levels of autonomy among these learners vary between students who went to normal, comprehensive, and vocational high schools?

Methodology

Participants

The subjects for this study are 96 Taiwanese university English majors from a private university in central Taiwan. There are 46 males and 50 females, ages 18-25 ($m = 20.6$). Divided by year, there are 25 freshmen, 27 sophomores, 22 juniors, and 22 seniors. They self-reported that they had studied English for an average of 11.5 years, but only two had studied abroad before. They self-rated their proficiency level as 9 beginners, 27 post-beginners, 27 lower-intermediate, 30 intermediate, and 3 upper-intermediate. Only 47 had previously taken the TOEIC (Test of English for International Communication) and scored 225-985. Of the 96 subjects, 32 had graduated from normal high schools, 12 had graduated from comprehensive programs, and 52 had graduated from vocational high schools.

Instruments

Two questionnaires were used for this study. The first was a modified version of the Chinese questionnaire from Taguchi et al. (2009). The questionnaire was converted to Traditional Chinese and the language was slightly modified by the first author—an experienced Chinese-English translator—for a Taiwanese audience. In addition, because their “findings justify the replacement of integrativeness with the ideal L2 self” (p. 78), those three items were removed from the questionnaire. The first part of the questionnaire was rated on a scale measuring from 1 (*strongly disagree*) to 6 (*strongly agree*). The second part of the questionnaire was rated on a scale from 1 (*not at all*) to 6 (*very much*). This scale was found to be highly reliable with a Cronbach’s Alpha of .920. All variables—with the exception of *travel orientation*—achieved satisfactory levels of reliability: criterion measures ($\alpha = .850$), ideal L2 self ($\alpha = .898$), ought-to self ($\alpha = .816$), family influence ($\alpha = .725$), travel orientation ($\alpha = .588$), instrumentality-promotion ($\alpha = .736$), instrumentality-prevention ($\alpha = .831$), assimilation ($\alpha = .725$), ethnocentrism ($\alpha = .731$), anxiety ($\alpha = .870$), attitude toward learning ($\alpha = .831$), attitude toward L2 community ($\alpha = .845$), and cultural interest ($\alpha = .798$).

The second instrument was a validated autonomy questionnaire from Huang and Wang (2015). This questionnaire, created by sampling from 2,312 Taiwanese learners across junior, senior, and vocational high schools as well as university freshmen, included measures of motivation, learning strategy usage, and metacognitive awareness. This instrument was measured on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*). This scale achieved an acceptable Cronbach’s Alpha of .866. The autonomy variables included motivation ($\alpha = .718$), learning strategies ($\alpha = .819$), and metacognition ($\alpha = .841$).

Procedures

These questionnaires were served using Google Forms, an online survey website. Subjects were given access to the questionnaire through a link and given one hour to complete the questionnaires. Most respondents finished the questionnaires in less than 30 minutes. The data was then downloaded to Microsoft Excel, organized, and imported into SPSS 23 for data analysis. The procedures include Cronbach's Alpha for reliability, variable means, canonical correlation analysis, and a MANOVA to examine the impact of high school program on the variables. The L2MSS variable *travel orientation* was not included in the analyses due its low reliability score.

Results

Table 1 displays the results of the means for each variable in the two measures. Students who graduated from normal high school programs have higher motivational self system measures on the *criterion measures* and *ideal L2 self*, as well as *family influence*, *instrumentality-promotion*, *attitude toward the L2 community*, and *cultural interest*. As for autonomy, students who graduated from normal high school programs also measured higher in *motivation* and *metacognition*. It should be noted that the differences among the three groups are quite small, showing that students from the different high school programs do not differ that much at all, as measured on these questionnaires.

Table 1. Variable Means for Motivational Self System and Autonomy

Factor	Normal	Comprehensive	Vocational	Mean
Criterion Measures	4.52	4.03	4.39	4.39
Ideal L2 Self	4.76	4.52	4.56	4.62
Ought-to Self	3.08	3.13	3.27	3.19
Family Influence	3.34	3.05	3.29	3.28
Instrumentality-Promotion	4.52	4.50	3.37	3.27
Instrumentality-Prevention	3.08	3.33	3.37	3.27
Attitude toward Learning	4.37	4.02	4.40	4.34
Attitude toward L2 Community	4.95	4.85	4.80	4.86
Assimilation	2.67	2.92	2.88	2.82
Ethnocentrism	2.96	2.65	3.05	2.97
Anxiety	3.23	4.06	3.83	3.66
Culture	5.07	4.89	4.96	4.99
Autonomy-Motivation	4.06	3.98	3.54	3.50
Autonomy-Strategies	3.50	3.39	3.54	3.50
Autonomy-Metacognition	3.80	3.45	3.71	3.71

The students who graduated from vocational school programs had higher *ought-to self*, *instrumentality-prevention*, *attitude toward learning*, *ethnocentrism*, and *autonomy-strategies* measures. Additionally, the students who graduated from comprehensive high school programs led only in *assimilation* and *anxiety* measures.

Despite the differences in variable means, a MANOVA showed no significant differences among the three school groups on the L2MSS, $F(24, 164) = .884, p = .623, \text{Wilk's } \Lambda = .784$. Moreover, a MANOVA showed no significant differences among the three school groups in measures of autonomy, $F(6, 182) = .966, p = .450, \text{Wilk's } \Lambda = .939$. That is say, there was no difference among students who graduated from normal, comprehensive, and vocational school programs in either the L2MSS or autonomy.

To examine the relationships among the variables, a partial correlational analysis was conducted. The results showed that the L2MSS *criterion measures* were strongly correlated with all three autonomy measures. This is also true for the *ideal L2 self*, *ought-to self*, *instrumentality-promotion*, *attitude toward learning*, *attitude toward the L2 community*, and *assimilation*. The measures of *ethnocentrism*, *anxiety*, and *cultural interest* were only partially correlated with autonomy, and *instrumentality-prevention* had no significant correlations with autonomy. Interestingly, *anxiety* was the only L2MSS variable that was negatively correlated with autonomy. The details of these results can be seen in Table 2.

Table 2. Partial Correlation of Motivational Self System and Autonomy Variables

Factor	Motivation	Strategies	Metacognition
Criterion Measures	.596***	.581***	.624***
Ideal L2 Self	.524***	.293**	.524***
Ought-to Self	.324**	.393***	.449***
Family Influence	.103	.238*	.246*
Instrumentality-Promotion	.550***	.403***	.571***
Instrumentality-Prevention	.108	.184	.108
Attitude toward Learning	.617***	.474***	.501***
Attitude toward L2 Community	.613***	.336**	.469***
Assimilation	.240*	.410***	.320**
Ethnocentrism	.038	.285**	.248*
Anxiety	-.069	-.160	-.272**
Cultural Interest	.313**	.076	.210*

Note. *** $p = .000$, ** = $p < .01$, * = $p < .05$

To further examine the relationships among the L2MSS and autonomy, a canonical correlation analysis (CCA) was run. The purpose of CCA “is to evaluate the degree that two variable sets are related to each other and then determine how the specific variables function in this multivariate relationship” (Nimon, Henson, & Gates, 2010, p. 704). The results proved significant with Wilk’s $\Lambda = .192$, $p = .000$. Indeed, the canonical correlation of the first root, .825, with an eigenvalue of 2.13, shows an overall strong positive correlation among the L2MSS and autonomy variables. Several, but not all, of the individual L2MSS variables showed strong correlations with autonomy. Most prevalent were the criterion measures ($r = .811$), attitude toward learning ($r = .756$), and instrumentality-promotion ($r = .748$). The results for all the L2MSS variables are laid out in Table 3.

Table 3. Correlation Coefficients for L2MSS variables and Autonomy

Component	Coefficient
Criterion Measures	.810
Ideal L2 Self	.702
Ought-to L2 Self	.505
Family Influence	.213
Instrumentality-Promotion	.748
Instrumentality-Prevention	.142
Attitude toward Learning	.756
Attitude toward L2 Community	.736
Assimilation	.365
Ethnocentrism	.171
Anxiety	-.210
Cultural Interest	.360

Table 4 lays out the coefficients and total percentage of variance explained for the autonomy variables which explained 55.16% of the variance in the L2MSS.

Table 4. Correlation Coefficients and Cumulative Percentage of Variance Explained for Autonomy Variables

Component	Coefficient	Cum % Total
Autonomy – Motivation	.930	71.39
Autonomy – Strategies	.711	18.69
Autonomy – Metacognition	.878	9.92

Discussion and Conclusion

The first research question sought to examine the composition of Taiwanese university English majors’ L2 motivational self systems and autonomy. The results showed that the questionnaire used by Taguchi et al. (2009), with the exception of the *travel orientation* variable, was valid and all factors achieved reliable measures. Similarly, the three autonomy factors—*motivation*, *learning strategies*, and *metacognition*—all reached acceptable levels of reliability.

That these students did not have a *travel orientation* could be due to the fact that so few of them—only two—had ever studied abroad. Since the subjects are located in central Taiwan, they may not have that much contact with English native speakers or a more globalized world, such as one might encounter in larger, more international cities. As such,

while they may appreciate the L2 culture and community and have visions of their *ideal* and *ought-to* selves, they may not desire to leave Taiwan or travel abroad. Another factor could be their low proficiency in English: they may feel that their English is not good enough for traveling abroad and interacting with others. If these students had higher proficiency or were located in a larger city, they may have had a *travel orientation* and more desire to travel, study, or live abroad.

The second research question examined whether there were any relationships among the variables in the L2MSS and autonomy measures. As the findings show, the *criterion measures*, as well as the *ideal L2 self*, the *ought-to self*, *instrumentality-promotion*, *attitude toward learning*, *attitude toward the L2 community*, and *assimilation* were all significantly and strongly correlated with all three autonomy factors.

Furthermore, a canonical correlation analysis found a strong positive correlation between the L2MSS and autonomy variables, overall. Several of the L2MSS variables were also strongly correlated with autonomy, with the *motivation* variable of autonomy explaining the largest amount of variance in the L2MSS. This corroborates the findings of previous research which found links between motivation and autonomy (Dickinson, 1995; Garcia & Pintrich, 1996; Littlewood, 1996; McCombs & Whisler, 1989).

Family influence, *ethnocentrism*, *anxiety*, and *cultural interest* were only marginally correlated with measures of autonomy. This could be because these measures are motivating to learners but do not push them to push themselves. Interestingly, *family influence* and *ethnocentrism* are only correlated with the *strategies* and *metacognition* measures of autonomy, not with the *motivation* measure. The reasons for this remain unclear. *Cultural interest*, on the other hand, is correlated with the *motivation* and *metacognition* measures of autonomy. It could be that this variable, which measures "the learner's interest in the cultural products of the L2 culture, such as TV, magazines, music and movies" (Taguchi et al., 2009, p. 75) motivates students to learn and helps them become more aware of their learning, but does not provide them with new strategies for learning.

Anxiety was the only motivational variable negatively correlated with autonomy according to the CCA, and only with *metacognition*. It may be that *anxiety*, defined as "the feeling of tension and apprehension specifically associated with second language contexts, including speaking, listening, and learning" (MacIntyre & Gardner, 1994, p. 284) lessens a learner's metacognitive awareness; as anxiety increases, the learner becomes less objective about his or her learning. Easing anxiety, on the other hand, would allow a learner to once again metacognitively examine their learning and become better learners. This supports the findings of previous research which "consistently yielded negative correlations between L2 anxiety and various L2 achievement measures" (Papi, 2010, p. 469).

Instrumentality-prevention, which had a low overall correlation with autonomy as per the CCA, was the only motivation variable not correlated with any measures of autonomy. This variable, "measuring the regulation of duties and obligations such as studying English in order to pass an examination" (Taguchi et al., 2009, p. 75), should perhaps not be correlated with autonomy and is thus what one might expect to see. Studying English out of a sense of duty is not done when one is autonomous. *Instrumentality-promotion*, "measuring the regulation of personal goals to become successful such as attaining high proficiency in English in order to make more money or find a better job" (p. 74) is what an autonomous learner would do. Indeed, *instrumentality-prevention*, dealing with duties and obligations, is more closely aligned with *perceived responsibility*, a factor which Huang and Wang (2015) found no support for. They noted that "the perception of taking responsibility does not play a powerful role in formulating one's learner autonomy ability" (p. 10). As such, these results support previous literature showing relationships between measures of motivation and autonomy.

The third research question asked whether there were differences in the L2MSS and autonomy measures according to the type of high school that respondents had attended. The results showed that students from vocational schools had higher *ought-to selves* and *instrumentality-prevention*. This could mean that they have higher pressure to achieve future goals than students who attended normal programs and view learning English as a duty or obligation. They also have higher *attitudes toward learning* and *autonomy-strategies* than the other groups. The reason for this remains unclear.

Perhaps unsurprisingly, students who attended normal high school programs had higher levels of *criterion measures*, as well as *ideal L2 selves*, *family influence*, *instrumentality-promotion*, *attitudes toward the L2 community*, and *autonomy-motivation* and *autonomy-metacognition*. Students from these schools should generally do better in language programs and have higher proficiency than students from vocational schools. As such, they view English as a means of getting ahead in life and are self-motivated and autonomous. They can visualize their *ideal L2 self* and think objectively about their learning.

Students from comprehensive programs, which are similar to normal programs but done at vocational schools, are often in the middle. Indeed, they have the highest scores for only *assimilation* and *anxiety*. It is not clear why this is. However, the results of the MANOVA showed that there were no significant differences among the groups in either of the factors. It is possible that the high school program had no effect on students' motivation and autonomy, or that the effect did not last into university. It may also be that the university atmosphere draws students toward a middle ground, thus negating any effect from a high school program.

Conclusion

This study sought to examine Taiwanese university English majors' L2MSS and autonomy, the relationships among those measures, and whether any differences existed among the subjects due to the type of high school they had attended. The results of a MANOVA and correlation analyses showed that elements of motivation and autonomy were related, supporting previous literature, and that while differences existed among the students who had gone to normal, comprehensive, and vocational schools, none of the differences were significant.

This study is limited in that it examined subjects from only one school in central Taiwan. Future studies should sample from multiple schools and different geographical areas. It may be that different types of universities—private, normal, or national—or geographical areas—urban or rural—may have an impact on motivation and autonomy. This study is also limited by the sample size. Future studies should increase the sample size in order to be able to generalize the findings to a larger population and further conduct a confirmatory factor analysis.

This study is also somewhat limited in that it used existing questionnaires instead of fielding and validating a new questionnaire. However, the autonomy questionnaire was validated with Taiwanese students, and the L2MSS questionnaire has been used and validated in multiple studies as well among a Chinese population.

Future studies may find it useful to use a different motivational questionnaire or examine different factors. Taguchi et al. (2009) did not have measures of *linguistic self-confidence* or *interest in the English language* in their Chinese questionnaire; incorporation of these factors or other factors into future motivation questionnaires may yield fruitful results in the Taiwanese context. What is clear from this study is that even though no significant differences existed between students from different high school programs, there are relationships between elements of motivation and autonomy, and there may be other variables that affect these measures. Future studies should continue to examine these variables in the Taiwan context across different age groups and education levels. EFL teachers and researchers should continue to investigate motivation and autonomy and promote autonomous learning that will benefit learners in the long term.

References

- Aoki, N., & Smith, R. C. (1999). Learner autonomy in cultural context: The case of Japan. In S. Cotterall & D. Crabbe (Eds.), *Learner autonomy in language learning: Defining the field and effecting change* (pp. 19–28). New York, NY: Peter Lang.
- Berg, D. R., & Lu, Y. (2019). The effect of high school program and university study length on Taiwanese EFL university students' motivational identities and learning strategy use. *Journal of Literature, Languages and Linguistics*, 53, 33–43. <https://doi.org/10.7176/JLLL/53-05>
- Boud, D. (1988). Moving towards autonomy. In D. Boud (Ed.), *Developing student autonomy in learning* (2nd ed., pp. 17–39). London, UK: Kogan Page.
- Braine, G. (2003). From a teacher-centered to a student-centered approach: A study of peer feedback in Hong Kong writing classes. *Journal of Asian Pacific Communication*, 13(2), 269–288. <https://doi.org/10.1075/japc.13.2.05bra>
- Chan, V. (2001). Readiness for learner autonomy: What do our learners tell us? *Teaching in Higher Education*, 6(4), 505–518. <https://doi.org/10.1080/13562510120078045>
- Chan, V., Spratt, M., & Humphreys, G. (2002). Autonomous language learning: Hong Kong tertiary students' attitudes and behaviours. *Evaluation & Research in Education*, 16(1), 1–18. <https://doi.org/10.1080/09500790208667003>
- Chang, L. Y.-H., & Geary, M. P. (2015). Promoting the autonomy of Taiwanese EFL learners in higher education by using self-assessment learning logs. *Studies in English Language Teaching*, 3(4), 339–354. <https://doi.org/10.22158/selt.v3n4p339>
- Chu, H.-L. (2014). *The investigation of international posture and L2 self among Taiwanese college students* (Master's thesis, Ming Chuan University). Retrieved from <http://handle.ncl.edu.tw/11296/ndltd/34136697274669092684>
- Cohen, A. D. (2010). Focus on the language learner: Styles, strategies and motivation. In N. Schmitt (Ed.), *An introduction to applied linguistics* (2nd ed., pp. 161–178). London, UK: Hodder Education.
- Dickinson, L. (1995). Autonomy and motivation: A literature review. *System*, 23(2), 165–174. [https://doi.org/10.1016/0346-251X\(95\)00005-5](https://doi.org/10.1016/0346-251X(95)00005-5)
- Dornyei, Z. (1990). Conceptualizing motivation in foreign-language learning. *Language Learning*, 40(1), 45–78. <https://doi.org/10.1111/j.1467-1770.1990.tb00954.x>
- Dornyei, Z. (2005). *The psychology of the language learner: Individual differences in second language acquisition*. Mahwah, NJ: Lawrence Erlbaum Associates.

- Dornyei, Z. (2009). The L2 motivational self system. In Z. Dornyei & E. Ushioda (Eds.), *Motivation, language identity and the L2 self* (pp. 9–42). Bristol, UK: Multilingual Matters.
- Dornyei, Z., & Ushioda, E. (Eds.). (2009). *Motivation, language identity and the L2 self*. Bristol, UK: Multilingual Matters.
- Dornyei, Z., & Ushioda, E. (2011). *Teaching and researching motivation* (2nd ed.). New York, NY: Longman/Pearson.
- Gan, Z., Humphreys, G., & Hamp-Lyons, L. (2004). Understanding successful and unsuccessful EFL students in Chinese universities. *The Modern Language Journal*, *88*(2), 229–244. <https://doi.org/10.1111/j.0026-7902.2004.00227.x>
- Garcia, T., & Pintrich, P. R. (1996). The effects of autonomy on motivation and performance in the college classroom. *Contemporary Educational Psychology*, *21*(4), 477–486. <https://doi.org/10.1006/ceps.1996.0032>
- Gardner, R. C. (1985). *Social psychology and second language learning: The role of attitudes and motivation*. London, UK: Edward Arnold.
- Gieve, S., & Clark, R. (2005). The Chinese approach to learning: Cultural trait or situated response? The case of a self-directed learning programme. *System*, *33*(2), 261–276. <https://doi.org/10.1016/j.system.2004.09.015>
- Ho, J., & Crookall, D. (1995). Breaking with Chinese cultural traditions: Learner autonomy in English language teaching. *System*, *23*(2), 235–243. [https://doi.org/10.1016/0346-251X\(95\)00011-8](https://doi.org/10.1016/0346-251X(95)00011-8)
- Holec, H. (1981). *Autonomy and foreign language learning*. New York, NY: Pergamon Press.
- Huang, S.-H. C., & Wang, C.-H. (2015). Developing and validating a foreign language learner autonomy scale. *Spectrum: NCUE Studies in Language, Literature, Translation, and Interpretation*, *13*(1), 1–20.
- Ko, Y. H. (2015). *A self system perspective on early adolescents' English learning motivation: Differences in urban and rural areas and the intervention program* (Master's thesis, National Tsing Hua University). Retrieved from <http://handle.ncl.edu.tw/11296/ndlt/71233250699725863590>
- Little, D. (1991). *Learner autonomy 1: Definitions, issues and problems*. Dublin, Ireland: Authentik Language Learning Resources.
- Little, D. (1995). Learning as dialogue: The dependence of learner autonomy on teacher autonomy. *System*, *23*(2), 175–181. [https://doi.org/10.1016/0346-251X\(95\)00006-6](https://doi.org/10.1016/0346-251X(95)00006-6)
- Little, D. (1996). Freedom to learn and compulsion to interact: Promoting learner autonomy through the use of information systems and information technologies. In R. Pemberton, E. S. L. Li, W. W. F. Or, & H. D. Pierson (Eds.), *Taking control: Autonomy in language learning* (pp. 203–218). Hong Kong: Hong Kong University Press.
- Littlewood, W. (1996). "Autonomy": An anatomy and a framework. *System*, *24*(4), 427–435. [https://doi.org/10.1016/S0346-251X\(96\)00039-5](https://doi.org/10.1016/S0346-251X(96)00039-5)
- Littlewood, W. (1999). Defining and developing autonomy in East Asian contexts. *Applied Linguistics*, *20*(1), 71–94. <https://doi.org/10.1093/applin/20.1.71>
- Littlewood, W. (2000). Do Asian students really want to listen and obey? *ELT Journal*, *54*(1), 31–36. <https://doi.org/10.1093/elt/54.1.31>
- Lo, H. Y. (2015). *Parental influence on Taiwanese adolescents' English learning motivation, L2 selves, and international posture* (Master's thesis, National Tsing Hua University). Retrieved from <http://handle.ncl.edu.tw/11296/ndlt/32214896151085898128>
- Lo, Y. (2010). Implementing reflective portfolios for promoting autonomous learning among EFL college students in Taiwan. *Language Teaching Research*, *14*(1), 77–95. <https://doi.org/10.1177/1362168809346509>
- MacIntyre, P. D., & Gardner, R. C. (1994). The subtle effects of language anxiety on cognitive processing in the second language. *Language Learning*, *44*(2), 283–305. <https://doi.org/10.1111/j.1467-1770.1994.tb01103.x>
- McCombs, B. L., & Whisler, J. S. (1989). The role of affective variables in autonomous learning. *Educational Psychologist*, *24*(3), 277–306. https://doi.org/10.1207/s15326985ep2403_4
- Mineishi, M. (2010). East Asian EFL learners' autonomous learning, learner perception on autonomy and portfolio development: In the case of educational contexts in Japan. *International Journal of Arts and Sciences*, *3*(17), 234–241. Retrieved from http://openaccesslibrary.org/images/HAR-RLN173_Midori_Mineishi.pdf
- Nimon, K., Henson, R. K., & Gates, M. S. (2010). Revisiting interpretation of canonical correlation analysis: A tutorial and demonstration of canonical commonality analysis. *Multivariate Behavioral Research*, *45*(4), 702–724. <https://doi.org/10/c6tfrh>

- Noels, K. A., Pelletier, L. G., Clément, R., & Vallerand, R. J. (2000). Why are you learning a second language? Motivational orientations and self-determination theory. *Language Learning, 50*(1), 57–85. <https://doi.org/10.1111/0023-8333.00111>
- Oxford, R. L. (1990). *Language learning strategies: What every teacher should know*. Boston, MA: Heinle & Heinle.
- Papi, M. (2010). The L2 motivational self system, L2 anxiety, and motivated behavior: A structural equation modeling approach. *System, 38*(3), 467–479. <https://doi.org/10.1016/j.system.2010.06.011>
- Schunk, D. H., Meece, J. L., & Pintrich, P. R. (2014). *Motivation in education: Theory, research, and applications* (4th ed.). Boston, MA: Pearson.
- Sinclair, B. (2000). Learner autonomy: The next phase? In B. Sinclair, I. MacGrath, & T. Lamb (Eds.), *Learner autonomy, teacher autonomy: Future directions* (pp. 4–14). Harlow, UK: Longman.
- Smith, R. C. (2001). Group work for autonomy in Asia: Insights from teacher-research. *AILA Review, 15*, 70–81.
- Spratt, M., Humphreys, G., & Chan, V. (2002). Autonomy and motivation: Which comes first? *Language Teaching Research, 6*(3), 245–266. <https://doi.org/10.1191/1362168802lr106oa>
- Taguchi, T., Magid, M., & Papi, M. (2009). The L2 motivational self system among Japanese, Chinese and Iranian learners of English: A comparative study. In Z. Dornyei & E. Ushioda (Eds.), *Motivation, language identity and the L2 self* (pp. 66–97). Bristol, UK: Multilingual Matters.
- Ushioda, E. (2002). Language learning at university: Exploring the role of motivational thinking. In Z. Dornyei & R. Schmidt (Eds.), *Motivation and second language acquisition* (pp. 93–125). Manoa, HA: University of Hawaii Press.
- Usuki, M. (2000). *Promoting learner autonomy: Learning from the Japanese language learners' perspectives* (Research Report No. ED450588). Retrieved from <http://files.eric.ed.gov/fulltext/ED450588.pdf>
- Usuki, M. (2001). *Learner autonomy: Learning from the students' voice* (Research Report No. ED452698). Retrieved from Hokuriku University website: <http://files.eric.ed.gov/fulltext/ED478012.pdf>
- Wang, Z. (2013). *Language learner autonomy: Validate its constructs and investigate Taiwanese students' tendency* (Master's thesis, National Changhua University of Education). Retrieved from <http://handle.ncl.edu.tw/11296/ndltd/58450717563728943697>
- Warden, C. A., & Lin, H. J. (2000). Existence of integrative motivation in an Asian EFL setting. *Foreign Language Annals, 33*(5), 535–545. <https://doi.org/10.1111/j.1944-9720.2000.tb01997.x>
- Wenden, A. (1991). *Learner strategies for learner autonomy: Planning and implementing learner training for language learners*. New York, NY: Prentice Hall.
- Yang, N.-D. (1998). Exploring a new role for teachers: Promoting learner autonomy. *System, 26*(1), 127–135. [https://doi.org/10.1016/S0346-251X\(97\)00069-9](https://doi.org/10.1016/S0346-251X(97)00069-9)