



Understanding Motivational Fluctuations among Young Rural EFL Learners: A Longitudinal Case Study

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This three-year longitudinal study examines Taiwanese rural junior high school students' motivational changes regarding learning English. The same questionnaire measuring their levels of motivation was conducted throughout five semesters across three school years. Seven motivational aspects, including intrinsic, extrinsic, task value, control beliefs, self-efficacy, expectancy and test anxiety, were measured each semester. The overall findings suggest that these rural students started with higher levels of intrinsic, extrinsic and task-related motivation compared to the other motivational aspects; also that girls generally presented higher motivation levels than boys. More generally, students reported mild-to-low level motivation, which indicated that rural students' EFL motivation would decrease during their school years. The results suggest both English teacher and homeroom teacher appear to play vital roles in affecting rural students' motivation. Such findings signal a need for English teachers and educational authorities to reconsider the methods used for both developing and improving rural students' motivation to learn English throughout their junior high school years. Other factors, including gender and English engagement after school, were also found to be effective. This study also suggests practical recommendations for English learning and teaching in rural Taiwanese high schools, which may be effective in other EFL contexts.

Keywords: English learning motivation, motivational changes, rural school students, longitudinal study

Introduction

Motivation in learning a second or foreign language (L2) has been widely studied. L2 classrooms abound with complicated and dynamics agents that constantly interact with each other. For instance, Muñoz and Tragant (2001) found that learners' interest in L2 may not always be stable but is likely to change from time to time; also, Henry and Apelgren (2008) stated that it is likely to decline or increased over time; Onoda (2008) also discovered that changes can be either positive or negative. Meanwhile, L2 motivation researchers found that increased attention motivational variations depending on the language learning context, such as variations in individuals, interpersonal relationships, and the various dynamic ways of learning the target language, all of which affect motivation (Dörnyei & Ushioda, 2011; Kikuchi, 2019; Ushioda, 2012; 2013).

EFL students have limited exposure to English outside the class or school. Hence, in traditional classrooms, maintaining students' motivation can be a big challenge for teachers, since in rural areas opportunities to obtain access to the English language can are far more less than they are in urban settings. As Hardré and Sullivan (2008) stated, due to limited access to crucial resources, rural schools usually provide fewer extracurricular programs than their non-rural counterparts, whereas teachers are often the

most critical factors that affect rural students' learning (Hardré, 2007; Wang, 2107). Accordingly, rural students often face the combined risks of low achievement, low motivation, and lack of school success (Lichter, Roscigno, & Condrón, 2003). Around 33% of junior high schools in Taiwan are in rural communities (MOE, 2014). However, compared to urban educational settings, few studies have been carried out in rural schools (Gándara, Gutiérrez, & O'Hara, 2001). Although motivation studies have generated much literature, researches on motivation *changes* are rare (Dörnyei, MacIntyre, & Henry, 2015; Yamaoka, 2019). Therefore, by examining the changes of motivation of junior high school students in a rural area, this study should shed the light on this neglected theme.

Before entering junior high school, students in Taiwan will have received four years of English curriculum in their elementary schools. However, the transition from elementary to junior high can be one of the most stressful times in their lives (Chambers, 2019; Kozumi & Matsuo, 1993) since they encounter different educational environments, such as new buildings, teachers, classmates, and rules, so it is a crucial time to be continuing with their English studies. Because language learning is a long-term process, the motivation for it fluctuates and is changeable; therefore, this study aims to track rural students for three years in order to offer insights into how crucially motivational features can change over time. Hence, the purpose of this study was not to generate a new model, but to take a closer look at motivational changes in a sample of EFL students in a rural junior high school. To further this study, the following two research questions were asked:

1. How do rural high school students' motivational dispositions regarding English learning change over the years?
2. How do students' motivation and their gender, school-class and after school engagement, affect each other?

Literature Review

Motivation and Second/Foreign Language Learning

Motivation is an internal drive that encourages the achievement of a specific goal, initiates learning and sustains a later, long-term learning process (Dörnyei, 2001). It is also considered to be a predictor of success in second or foreign language learning. Students with high intensity of motivation often perform better than those who have a low intensity. Early motivation researchers, Gardner and Lambert (1959), identified two types of motivation, (i) the impetus to learn within an L2 community, and (ii) integrative motivation, which is the desire to learn the language and to integrate successfully into an L2 community, and instrumental motivations, which is the external force required to acquire the target language.

Later, Deci and Ryan (1985) proposed another now widely accepted model of L2 motivation research, self-determination theory, by further distinguishing between intrinsic and extrinsic motivation. They argued that intrinsic motivation refers to enjoying doing something for personal satisfaction, while extrinsic motivation means doing something for external reasons. In order to make individuals intrinsically motivated, Ryan and Deci (2000) proposed three core needs to be fulfilled: autonomy, competence and relatedness. That is, learners should be allowed to make their own decisions and be responsible for their behaviors; then, they should be assigned challenge and achievable tasks to develop their competence; and finally the education setting should offer learners a sense of belonging and develop their identifications.

Dörnyei's L2 motivational framework (1994) provides a clear structure that is based on an educational context situated at three levels, the language level, the learner level, and the learning situation level. The language level refers to student language learning motivation, including both instrumental and integrative orientations. The learner level involves a learner's individual characteristics which they bring into the learning process. The learning situation level relates to the L2 learning classroom, which includes three

motivational components: course-specific, teacher-specific, and group-specific. Dörnyei (2001) highlighted the issue that early motivational model was only concerned with grouping these key L2 motivational variables, rather than how the learner, language and learning situation levels interact with each other.

Regarding biological features, the relationship between gender and motivation has been examined in several studies. For example, Gardner (1985) reported that girls generally present favorable attitudes towards language learning. Dörnyei and Clément's study (2001) also supported the notion that girls in general tend to score higher on most motivational measurements, intrinsic motivation in particular (Williams, Burden, & Lanvers, 2002). In their study of Hungarian students, Csizer and Dörnyei (2005) pointed out that schoolboys appeared less motivated in relation to English learning. Although the differences between boys and girls are not simply because of their natural differences but also because of their interactions with family, school and peers; hence, the literature seems to agree that gender does affect language learning.

Student motivation is complicated because it is also affected by learners' surroundings factors, including family members, peers, teachers, administrators and the school environment. Motivation crucially affects school-related outcomes for students, particularly regarding such areas as attention, behavior, goals, work quality, academic performance and school completion (Hardré & Sullivan, 2008; Pintrich, 2003). Interestingly, according to Shirai (2012), language-learning tends to differ from other school subjects in terms of motivation, and other L2 empirical studies have produced evidence that language learners are more easily influenced by relevant environmental elements, although how these features interact to influence the individual learner can be difficult to predict (Dörnyei & Ushioda, 2011). Ever since Gardner and Lambert's pioneer work in Canada in the 1950s, motivation has been both actively researched and conceptualized, school-related motivation is a complex dynamic system, either to study or to influence (Pintrich, 2003).

Researching on EFL Motivational Changes

Motivation is not static but dynamic and it fluctuates over time; hence, L2 learners experience a cycle involving motivational instability, variability, change and variation; several empirical studies investigating L2 long-term motivational dynamics have identified motivational changes that fluctuate over time (Dörnyei, 2001; Dörnyei, Henry, & MacIntyre, 2015; Dörnyei & Otto, 1998; Kikuchi, 2019; Pawlak, 2012; Swayer, 2007). For example, Ushioda (2001) discovered that Irish adult learners of French were able to achieve more specific L2-related goal over an 18 months period. More recently, Kikuchi (2019), who conducted a two-year qualitative study investigating motivational trajectories with four young Japanese adults, found that they were easily negatively affected over the period, by both their teacher's and their peers' motivational needs.

Some researchers believe that learner motivation can be affected by a variety of contextual factors, such as the behavior of classmates, the classroom space, and their teachers' methods of instruction (Jodaei, Zareian, Reza Amirian, & Reza Adel, 2018; Waning, Dörnyei, & de Bot, 2014), and even small conditions differences at the beginning can occur massive effects later (Nitta, 2013). Other studies even show students' motivation levels seem to decline as they grow older (Dörnyei & Csizer, 2002; Ghenghesh, 2010; Sawyer, 2007). Also, that school environment may have a negative effect on students' learning motivation (Wigfield & Eccles, 2000). Interestingly, such motivational decreases may not always be negative, since some students might need these breaks to regain their passion for learning at school (Onoda, 2008).

The most common method used in motivational studies involves using questionnaires in order to compare learners' motivation chronologically. For instance, Canadian researchers, Gardner, Masgoret, Tennant, and Mihic (2004), who examined 197 Canadian university student learners of French, found that their attitude and motivational level scores dropped from the beginning to the end of their one-year course.

Kozumi and Matsuo (1993) focused on 296 Japanese seventh-grade students learning English for motivational changes over a year and reported that their motivation levels gradually became more stable when they had more realistic learning goals to pursue. Their results also found that girls generally scored higher in most attitudinal and motivational variables than boys.

In a three-year longitudinal study, Irie (2005) tracked 86 Japanese junior high school students' motivational changes. Following a mixed-method design, she found many students' motivation levels decreased at the beginning and towards the end of the study, which she attributed to two 'Japanese contextual' factors—the compulsory nature of English teaching and the Japanese tendency for self-criticism. However, she revealed an importance of teacher factor helped most students to maintain a stable motivational level.

Tracking 481 Japanese students' motivational patterns from junior high school stage until the third year of university, Hayashi (2005) used Deci and Ryan's (1985) self-determination framework to ask participants to respond to the following L2 motivational questionnaire items retrospectively: (i) when was the motivation strong (ii) when was it weak, and why was it strong or weak? He found that the reasons why students' motivational levels fluctuated were due to extrinsic motivations. He further explained that only when the students displayed positive extrinsic factors, such as getting good performance on entrance exams, could their initially high motivation be sustained. Hayashi also found a pattern regarding students' motivation, which gradually declined from junior high school to university level, with a slight increase at the ends of junior high and senior high school, but it dropped sharply after enrolling in university.

Similarly, Sawyer (2007) examined students' EFL motivation starting from their first year of junior high school to their third year at university. He discovered a fluctuation in students' motivation levels over time, which was high in the first year but gradually decreased and then increased again, forming a U-shaped curve throughout the study. Sawyer also found that teachers were a crucial factor affecting junior high school students' motivation whereas high school and university students were mostly affected by their peers.

To explore the changes in Korean high school students' motivation and attitudes towards English learning, Kim and Kim (2016) conducted a project with a total of 1,471 students completed the same questionnaire at three different time periods. Their findings were that for high school students, English was deemed as an opportunity for competition rather than simply for self-development. Thus, a competitive motivation appeared to be important in English learning. However, it should be noted that, in line with Gardner et al. (2004), their study also discovered a motivational decline over the years among Korean high school students.

In Asian countries, such as Japan, Korea, Taiwan, Thailand, where there are similar educational conditions, these studies all concluded that, for many students, extrinsic motives, such as compulsory learning, particular teaching techniques, self-development, and high school and university entrance exams, are the most affective factors in relation to English learning.

Method

Participants

Participants in this study were first year junior high school students enrolled in 2015 in a central county of Taiwan. The school met the criteria for rural areas as identified by the Ministry of Education. Usually, junior high school students have four English class periods a week, 40 minutes per class. The target was 13 to 14 years old students who were surveyed in their first year of junior high school. Table 1 shows the profiles of the students that were collected each semester. During data collection, some students were absent on other activities, hence the numbers of completed questionnaires varied.

TABLE 1
Students' Profiles

Semesters		1 st Semester	2 nd Semester	3 rd Semester	4 th Semester	5 th Semester
Gender	Girl	48	53	60	43	48
	Boy	41	45	46	42	42
Total		89	98	106	85	90

Table 2 shows the distribution of English teaching resources outside regular classes. In their first semester, half took extra English classes after school in the private sector. However, the percentage gradually decreased, in the fourth semester, although the number of students receiving private English lessons rose to 42.4%, but later dropped to almost 34%. Meanwhile, those who engaged in self-study, or even did no after-school learning, increased in the third semester, indicating that more students tended to review at home (40.6%) or just did not additional English learning (31.1%).

TABLE 2
Distribution of English Language Teaching Resources after Regular Classes

	After-class tutorial	Private sector	Family members	Self-study	None	Students
1 st Semester	0%	50.6%	0%	32.6%	25.8%	89
2 nd Semester	14.3%	38.8%	0%	41.8%	28.6%	98
3 rd Semester	0.9%	34.9%	1.9%	40.6%	31.1%	106
4 th Semester	1.2%	42.4%	4.7%	45.9%	25.9%	85
5 th Semester	3.3%	34.1%	0%	37.4%	30.8%	90

Instruments

To examine Taiwanese rural students' motivational changes, the data was collected by means of a motivational questionnaire developed by adopting items from a previous validated study by Pintrich, Smith, Garcia, and McKeachie (1991), which was translated and modified to meet with the students' profiles. To fulfill the purposes of this study, the questionnaire was revised to focus on English learning and to allow for the cognitive maturity of junior high school students, the questions were written as clearly as possible in Chinese, which is their first language. The five-point Likert scale with five representing 'strongly agree' and one representing 'strongly disagree', was used in order to measure participants' self-perceptions of their EFL motivation.

Five versions of the motivational questionnaire, which contained the same questions, but in different orders, were distributed to the same cohort across five semesters over three academic years in order to examine the changes in motivation scores. The first part of the questionnaire related to their demographic background, gender, class, length of time learning English, and their after-school learning. The second part included questions about the three major motivation-related components: the value component, the expectancy component and the affective component. All items were considered to be self-reporting. The motivational components, together with their definitions, are presented in Table 3 (see Appendix for English version of student questionnaire).

TABLE 3
Components of Motivational Variables

Component	Definition	Items
1. Intrinsic goal orientation	This concerns the degree to which the student perceives him/herself to be participating in a task for reasons such as challenge, curiosity, and/or mastery.	4
2. Extrinsic goal orientation	This concerns the degree to which the student perceives him/herself to be participating in a task for reasons such as grades, rewards, performance, evaluation by others, and competition.	4
3. Task value	This refers to students' perceptions of the course material in terms of interest, importance, and utility.	6
4. Control of learning beliefs	This refers to students' beliefs that their efforts to learn will result in positive outcome.	8
5. Self-efficacy (for learning and performance)	This is a self-appraisal of one's ability to master a task which including judgments about one's ability to accomplish a task and one's confidence in one's skills to perform that task.	5
6. Expectancy	This refers to performance expectations and task performance.	3
7. Test anxiety	This refers to negative thoughts that disrupt performance as well as affective and physical arousal aspects of anxiety.	5

Note. The variables are from Pintrich, P. R., Smith, D. A. F., García, T., and McKeachie, W. J. (1991).

Procedures and Data Analysis

The researcher carried out pre-arranged on-site visits to all the classes during which, paper-based questionnaires were administered to all. During the first month of each semester, the researcher re-visited each class and administered the amended questionnaire. During its completion, the researcher made sure the students did not share their responses or confer with their peers. At the beginning of the procedure, the purpose of the survey was briefly explained, together with their right to choose not to answer the questionnaire as well as the confidentiality of their responses, using the standard protocol. Students provided both the names of their class and their English teacher. The researcher collected all questionnaires and reminded them of the confidentiality of all collected data.

At the end of each semester, the data obtained from the questionnaires was analyzed using SPSS. Statistical analyses, which include descriptive analysis, repeated measures, and Mann-Whitney U test, were performed in order to assess the patterns and identify any changes in English learning motivation.

Results

Rural students' motivation to learn English was investigated five times over three academic years at junior high school. Table 4 shows the overall motivational changes during each semester. It is noticeable that in the first semester the motivation to learn English was at its strongest, whereas in the fifth semester it was at its lowest. Over the five semesters, they showed a mild level of motivation, which suggests that time could be an important factor to consider, although that only marginally significant value accrued between the first and the fifth semesters ($z = -1.956, p = .051$).

TABLE 4
Descriptive Statistics of Overall Motivational Components over 5 Semesters

1 st Semester (n = 89)		2 nd Semester (n = 98)		3 rd Semester (n = 106)		4 th Semester (n = 85)		5 th Semester (n = 90)	
<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
3.31	0.66	3.17	0.61	3.19	0.54	3.26	0.51	3.17	0.53

Table 5 shows overall motivation levels for rural students to be significantly different over time: $F(6, 2808) = 103.96, p < 0.001$, and that, while their extrinsic motivation was at its strongest, their test anxiety was at its lowest.

TABLE 5
Mean Scores by Class, Gender and Time

Motivational Aspects	Overall		Class				Gender		Semester				
	M	SD	01	02	03	04	Boy	Girl	1 st	2 nd	3 rd	4 th	5 th
Intrinsic motivation	3.44	0.77	3.37	3.61	3.48	3.29	3.23	3.68	3.62	3.33	3.41	3.49	3.35
Extrinsic motivation	3.47	0.77	3.46	3.55	3.42	3.42	3.35	3.61	3.61	3.53	3.28	3.56	3.39
Task value	3.41	0.79	3.41	3.54	3.34	3.34	3.25	3.60	3.53	3.24	3.45	3.46	3.38
Control beliefs	3.20	0.53	3.19	3.27	3.30	3.07	3.13	3.28	3.15	3.08	3.24	3.26	3.28
Self-efficacy	2.99	0.85	2.85	3.27	2.97	2.87	2.93	3.07	3.06	2.98	3.03	3.07	2.84
Expectancy	3.17	0.86	3.05	3.44	3.09	3.08	3.07	3.28	3.35	3.17	3.13	3.16	3.06
Test anxiety	2.84	0.52	2.92	2.80	2.88	2.77	2.79	2.90	2.86	2.86	2.83	2.84	2.82

With respect to the seven motivational components differ regarding class difference, gender and time, the results are presented in Table 5. In terms of time difference, students' intrinsic ($\chi^2 = 9.86$, $p = 0.043$) and extrinsic ($\chi^2 = 15.78$, $p = 0.003$) motivations were significantly different over the five semesters. Although the remaining five components (i.e., task value, control beliefs, self-efficacy, expectancy and test anxiety) fluctuated slightly from time to time, they did not show any significant difference.

TABLE 6
Motivational Changes between Semesters

Semester components	First-Second		Second-Third		Third-Fourth		Fourth-Fifth		Fifth-First	
	z	p	z	p	z	p	z	p	z	p
Intrinsic motivation	-2.476	0.013	-0.266	0.790	-1.058	0.290	-1.424	0.154	-2.590	0.010
Extrinsic motivation	-0.507	0.612	-2.827	0.005	-3.052	0.002	-1.789	0.074	-1.869	0.62
Task value	-2.217	0.027	-1.354	0.176	-0.312	0.755	-0.926	0.354	-1.541	0.123
Control beliefs	-0.753	0.452	-1.703	0.089	-0.676	0.499	-0.085	0.932	-1.595	0.111
Self-efficacy	-0.518	0.605	-0.075	0.940	-0.780	0.435	-2.059	0.039	-1.526	0.127
Expectancy	-1.314	0.189	-0.734	0.463	-0.640	0.522	-0.960	0.337	-2.356	0.018
Test anxiety	-0.164	0.870	-0.353	0.724	-0.599	0.549	-0.706	0.480	-0.548	0.583

For the motivational changes between semesters, a Mann-Whitney U test was applied. The results are shown in Table 6. During the first and second semesters, the students' intrinsic motivation was found to be significantly decreased in the second semester ($z = -2.476$, $p = .013$), although later it gradually increased, but with no significant difference. The task value result showed a significant value ($z = -2.217$, $p = .027$), and the mean value indicates that perceptions of the course materials in relation to interest, importance and utility dropped significantly in their second semester.

In the first two semesters in junior high school, the students seemed to apply positive extrinsic motivation in relation to their academic performance, peer relationships and rewards. However, such extrinsic motivations dropped to the lowest level ($M = 3.28$) in their third semester, that is, the beginning of second year of school study which made a significant difference between the second and fourth semesters. This suggests that the difficulty of English lessons may be linked to their academic performance, which affects their learning English motivation.

These students presented a lower level of self-efficacy throughout the five semesters (see Table 5), and a significant value was obtained between the fourth and fifth semesters ($z = -2.059$, $p = .039$, Table 6). The results suggest that these rural students may not have been confident in mastering what they have learned in English lessons or of being good at performing tasks. Students' expectations, on the other hand, made a significant difference between their second and third year (see Table 5), the mean value ($M = 3.06$) in the fifth semester decreased significantly ($z = -2.356$, $p = .018$, Table 6) compared with their first semester when they had just enrolled in the senior high school. In general, the mean value of these students' expectation in relation to task performance decreased over the semesters, which suggests that

they may not have expected to do any better as the English lessons were getting more difficult.

Table 7 presents an overall picture of gender differences among these rural school students. Most previous studies have found that girls generally perform better in language learning, therefore, because such a possibly biological feature means that girls may have an advantage in linguistic development, it is likely to lead to differences in both motivation and attitude towards English learning. Consequently, a significant difference was found ($F = 11.79, p < .001$)—and rural schoolgirls ($M = 3.35$) exhibited higher motivation levels than boys ($M = 3.11$).

TABLE 7
Students' Motivational Dispositions in relation to Gender Differences

Motivational aspects	1 st Semester		2 nd Semester		3 rd Semester		4 th Semester		5 th Semester	
	Boy	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy	Girl
Intrinsic motivation	3.38	3.91	3.06	3.65	3.18	3.72	3.41	3.57	3.18	3.55
Extrinsic motivation	3.46	3.77	3.42	3.67	3.13	3.47	3.47	3.65	3.31	3.48
Task value	3.35	3.73	3.00	3.52	3.24	3.71	3.42	3.50	3.25	3.54
Control beliefs	3.08	3.22	2.94	3.25	3.18	3.32	3.22	3.30	3.26	3.32
Self-efficacy	2.91	3.23	2.90	3.08	2.94	3.15	3.10	3.04	2.81	2.87
Expectancy	3.10	3.63	3.09	3.26	3.06	3.23	3.17	3.15	2.97	3.17
Test anxiety	2.77	2.98	2.78	2.95	2.82	2.84	2.77	2.90	2.78	2.86

Table 8 shows the results of the seven motivational component differences between boys and girls over the five semesters. The results indicate that girls mostly showed greater intrinsic motivation than boys, except in the fourth semester. Notably, boys showed relatively low extrinsic motivation in the third semester. However, both intrinsic ($z = -2.164, p = .030$) and extrinsic ($z = -3.158, p = .002$) motivation showed a significant increase in the fourth semester. In general, boys' motivation increased in their second year of junior high school, whereas girls' motivation fluctuated only slightly, hence no significant changes were found. Regarding expectancy, only in the first semester did any differences. Later, no gender differences were found regarding learning and future use of English. It should be noted that in the fourth semester, the gender factor appeared to make no difference to motivational levels.

TABLE 8
Gender Differences relating to Motivation Types (Mann-Whitney U Test)

Motivational aspects	1 st Semester		2 nd Semester		3 rd Semester		4 th Semester		5 th Semester	
	z	p	z	p	z	p	z	p	z	p
Intrinsic motivation	-2.61	.009	-3.55	<.001	-3.773	<.001	-1.02	.310	-2.384	.017
Extrinsic motivation	-1.57	.12	-1.22	.22	-2.65	.008	-1.07	.285	-1.35	.176
Task value	-2.11	.035	-2.94	.003	-3.158	.002	-.52	.603	-2.109	.035
Control beliefs	-1.29	.20	-2.29	.022	-1.33	.182	-.15	.881	-.484	.628
Self-efficacy	-1.55	.12	-1.05	.294	-1.66	.098	-.155	.877	-.820	.412
Expectancy	-2.62	.009	-1.03	.30	-1.83	.068	-.245	.806	-1.649	.099
Test anxiety	-1.67	.096	-1.31	.19	-.051	.959	-.651	.515	-.609	.543

The effect of extra exposure to English after school learning regarding students' overall motivation is examined across the semesters (Table 9). A very small number of students received English tuition from private sources, such as by after-class tutorials offered by their school English teachers, or by family members, Table 9 shows only the Mann-Whitney U Test results of three types of extra English learning engagements

TABLE 9
Overall Motivation Regarding Types of After-school English Engagements

	Semester	1 st	2 nd	3 rd	4 th	5 th
		Mean				
Private sector	Yes	3.52**	3.41***	3.44***	3.45***	3.31*
	No	3.09**	3.02***	3.06***	3.12***	3.08*
Self-study	Yes	3.58**	3.42***	3.35**	3.38	3.39**
	No	3.18**	2.99***	3.09**	3.14	3.02**
None	Yes	2.77***	2.78***	2.78***	2.88***	2.77***
	No	3.49***	3.33***	3.38***	3.40***	3.34***

Mann-Whitney U test: * $p < .05$, ** $p < .01$, *** $p < .001$

Receiving extra learning from the private sector clearly plays an important role in affecting rural students' motivation. Those who took extra English lessons in private language schools over the five semesters generally presented higher levels of motivation than those who did not. Similarly, those who self-studied English also registered a significant difference, except in the fourth semester. By contrast, students who did no additional studying after school presented with significantly lower motivation levels. It is natural to connect with students' levels of motivation with what the students do after regular English classes. If they did nothing concerning English language, it appears that they are less interested in learning English.

To sum up, the findings of this study shows that rural school students' motivation fluctuates over time. At the beginning of the study, the students displayed higher intrinsic and extrinsic motivation levels—the girls in particular. However, both boys' and girls' intrinsic and extrinsic motivation changed significantly over time. It should be noted that their motivation was overall lower than the mid value of 3.5 which suggests that the students of this study appeared to be less interested in learning English.

Discussion

The purpose of this longitudinal study was to explore rural junior high school students' motivational changes. Although, due to the relatively small cohort, the collected data may somehow limited insight into what is a complex issue, there were sufficient clear responses to the research questions to provide meaningful results.

Changes in the Levels of Motivation from the 1st Semester to the 5th Semester

Mean scores on the overall motivation across the five semesters fluctuated slightly from entrance to the fifth semester of junior high school study. These students' general motivation did not change significantly over the period and they had a mild-to-low level of motivation at the beginning of their junior high school study and a slight decline throughout their three academic years and into their fifth semester. This finding of lower level of motivation is in line with previous studies of rural students (D'Amico, Matthes, Sankar, Merchant, & Zurita, 1996; Lichter, Roscigno, & Condron, 2003). With regard to the seven motivational aspects, the rural students initially scored relatively positively for Intrinsic, Extrinsic and Task Value during their first semester. More specifically, a notable change occurred in the second semester with motivational aspects where their intrinsic orientation decreased significantly. Although the initial motivated behaviors do not promise the continuation of this state in the following school years, such a motivational decline suggests that students might have encountered difficulties in relation to learning English when they were at junior high school, as was found by Nitta's study (2013).

The findings of this study echo what previous researchers have suggested—that young students' interests in learning can both change over time (Chamber, 1999; Henry & Apelgren, 2008; Kim & Kim,

2016; Muñoz & Tragant, 2001), and decline as they grow older (Dörnyei & Csizer, 2002; Ghenghesh, 2010; Hayashi, 2005; Sawyer, 2007). Although this study did not obtain evidence to confirm whether the school environment had a negative effect on rural students' motivation levels, as Wigfield and Eccles (2000) found, it did show that students were more positively motivated at the beginning of their junior high school studies, but that later it declined.

Interestingly, students' extrinsic orientation scores fluctuated significantly during two periods of time—between the second-third semesters and third-fourth semesters (see Table 5). The mean value of extrinsic orientation in the third semester, which was in the second-year study, dropped to its lowest ($M=3.28$). However, this decline did not continue, but reversed during the next semester after which it stabilized. The results indicate that learner motivation is not always stable but changes over time (e.g., Dörnyei, Henry, & MacIntyre, 2015; Kikuchi, 2019). There may have a variety of reasons affecting student motivation, Kim and Kim's (2016) research findings offer a possible explanation that students may have problems in adjusting themselves to English learning at the junior high school stage, when extrinsic factors, such as grades, rewards or peer comparisons, probably play vital roles in increasing or decreasing motivation. Hayashi (2005) also reported that positive extrinsic reasons help sustain students' initial motivation.

In the fifth semester, students' self-efficacy for learning and performance dropped significantly compared to the fourth semester (see Table 6). In fact, it should be noted that these students generally possessed a relatively low levels of self-efficacy, which suggests that rural students initially lacked confidence when engaged in English learning tasks. Similarly, their expectation levels had also decreased significantly by the fifth semester. Because expectancy relates to what students expect for themselves—i.e., to do better in future learning—this result suggests a general sense of frustration among rural students regarding English learning.

The students in this study did not experience gains in extrinsic motivation by the final semester, as previous studies showed (e.g., Hayashi, 2005; Sawyer, 2007). However, it should not be concluded that high school entrance exams did not make these rural students more goal oriented. In fact, when they were into their fifth semester, they probably did not sense such an extrinsic reason strongly enough, since the entrance exam would not be held until the sixth semester, which was still several months away when this study ended. It is very important for teachers to understand how and why their students lack motivation to learn and to apply their knowledge and skills more effectively in an attempt to improve their levels of motivation (Hardré, 2012; Hardré & Sullivan, 2008).

A possible explanation for the declines in motivation is the transition problem—from primary school to junior high school—which impact greatly on young learners (Chambers, 2019; Koizumi & Matsuo, 1993). English learning at primary school level is usually fun and easy, but when they get to junior high school, it becomes more test-oriented and focused on memorizing vocabulary, acquiring grammatical rules, and translations, which are the popular strategies for senior high school entrance exam preparation in Taiwan. Therefore, as students get older, learning English in traditional way becomes difficult and is very much less fun than it used to be (Koizumi & Matsuo, 1993).

Affective Factors in Ongoing Motivational Dispositions

Factors relating to rural students, such as gender, class, and after school English lessons showed interesting results in this study. Firstly, students' motivation levels were different in relation to the class differences between the classes they were in. In the fifth semester, of the four classes, Class 2 generally presented as relatively high in terms of motivation (see Table 5), which was significantly different from the other classes ($M = 3.35$, $SD = 0.52$). This implies that contextual factors, such as the teachers and/or their peers in the same class may affect motivation levels (Wanninge, Dörnyei, & de Bot, 2014).

For junior high school students, the teacher factor is especially affective in shaping students' learning motivation (Hardré & Sullivan, 2008; Irie, 2005; Swayer, 2007; Wang, 2017). The students in this study formed a heterogeneous group, in that they selected randomly and allotted to one of four classes. Each

class was assigned a homeroom teacher together with and different subject teachers. For the purpose of this study, the four classes were taught by four different English teachers. Therefore, it could be that the English teacher and the homeroom teacher of Class 02 might have adopted different teaching styles and/or employed different strategies in shaping and sustaining students' levels of motivation.

This study showed there to be gender differences within some of the seven motivational aspects; results that are consistent with the findings of previous studies, in that, across most of the school years, girls generally scored higher in motivational dispositions, especially in the 'intrinsic motivation' and 'task value' areas (Csízer & Dörnyei, 2005; Dörnyei & Clément, 2001; Kozumi & Matsuo, 1993; Williams, Burden, & Lanvers, 2002). However, such gender factors appeared not to make any significant difference in the fourth semester. Surprisingly, in most motivational aspects, boys' motivation increased, and both intrinsic and extrinsic motivations were found to be more significant than in the previous semester. On the other hand, girls seemed to maintain steady motivational dispositions in the fourth semester. Such findings suggest that the second year of junior high school might be a turning point for English teachers to manage students' learning progress and motivation, since gender appears to make little difference at this stage.

With regard to self-efficacy and test anxiety, both boys and girls scored lower than the average mean over the five semesters; thus, gender seems not to make any difference. This suggests that rural students might lack a certain degree of confidence and/or beliefs in their own abilities. As Bandura (1997) explained, learners' levels of self-efficacy are highly correlated to the accomplishment of tasks, rather than to their actual ability. Hence, English teachers perhaps need to adjust their teaching methods in order to help their students to understand what they are teaching, and to build up their confidence. They could also help them to set appropriate goals by formulating clear learning objectives and encouraging them to achieve their goals by preventing them from consistently experiencing failure. In this way, negative feelings may be reduced and replaced by positives.

In relation to types of English engagement received after school, the findings show that students, who are either attending private lessons in private schools and/or doing self-study at home, regularly present higher motivation traits over the years. However, receiving private tutoring after school is linked to family financial support, while self-studying relates more to students' willingness to study English at home. Nevertheless, it is worth noting that, by the fifth semester, the students who chose to do no additional English learning after school, totaled 30.8% (see Table 2). Reasons why those students did nothing after school varied from lack of parental support, not being equipped with adequate study skills, or perhaps because they were aware that by studying other subjects it would be easier to score higher grades in examinations, rather than learning a foreign language, which they might have no need, or few opportunities, to use in future.

Finally, motivation is complex, but it is manageable; thus, for rural students, for motivation to be encouraged, they need to be both self-focused and content-focused (Hardré, 2012). Hence, to foster rural students' motivation, teachers and schools should work closely to promote positive perceptions and to raise their competence and skills levels.

Conclusions and Implications

This longitudinal study examined students' motivational changes in an identified rural junior high school in Taiwan by observing changes in seven motivational aspects across five semesters. The findings confirm that students' overall motivation fluctuates over time and declines as they get older, and that relationships between affective factors such as differences in classes, teachers, gender and after-school English engagements had a considerable effect on each other. In terms of motivational dispositions, three components, (i) intrinsic motivation, (ii) extrinsic motivation, and (iii) task value, were found to be higher during the first semester then gradually decreased.

According to Hardré (2012), motivating students and retaining it is always a challenge for teachers in

rural schools because of resource constraints and, as this study has found, the various motivational dispositions examined in this study. This study confirms other researchers' findings that the teacher's role is crucial in affecting rural students' motivation; hence, investing in motivating students and developing positive concepts in relation to learning, which, of course, can also be applied to all school subjects, could be the most valuable investment of all. Hence, the findings of this study suggest the following pedagogical implications.

Firstly, that both teachers and administrator must find ways to foster and maintain rural students' motivation levels. As this study has found, (i) learning in senior high schools is very really different from learning in the primary schools, and (ii) because rural students may lack family support for learning English at home, the 'climate' that schools and teachers create, as Hardré (2007) put it, is crucially important in successfully motivating their students. Therefore, it is crucial for teachers to recognize individual student's motivation levels and also to identify, and respond to, their concerns. Hence, as Chambers (2019) suggests, teachers need to design and employ reflective exercises in order to respond to rural students' previous learning experiences in their elementary schools, so as to maintain and enhance their motivational levels and interest. Secondly, L2 learning styles of rural students, for reasons described in this study, are different from those of urban students, therefore, since rural students arrive at junior high school with lower self-efficacy levels, in order to prevent them from losing faith in their ability to learn, teachers should encourage them to improve their confidence in their ability to be successful, since consistently failure results in negativity.

The findings of this study confirm existing empirical evidence regarding motivational changes in Taiwanese junior high school EFL students that have focused specifically on rural students. This study did not set out to offer a comprehensive solution to rural students' motivational deficits, instead, it was intended to illustrate the challenges that rural students must overcome during their junior high school studies. There is a growing need to understand more about the contextual variables in foreign/second language learning; therefore it is hoped that this study will contribute to the bank of knowledge regarding students in EFL rural high school classrooms and to encourage further longitudinal studies into motivational changes.

Acknowledgements

The author would like to thank the participating teachers, students and the schools for their contribution to the research and the anonymous reviewers for their helpful comments on earlier versions of this paper. This project was partially supported by the Ministry of Science and Technology in Taiwan (MOST 106-2410-H424-015).

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Appendix

Student Motivational Questionnaire (English Version)

<i>Component</i>	<i>Questionnaire items</i>
1. Intrinsic goal orientation	<ul style="list-style-type: none"> • In an English class like this, I prefer course material that really challenges me so I can learn new things. • In an English class like this, I prefer course material that arouses my curiosity, even if it is difficult to learn. • The most satisfying thing for me in this English course is trying to understand the content as thoroughly as possible. • When I have the opportunity in this class, I choose course assignments that I can learn from even if they don't guarantee a good grade.
2. Extrinsic goal orientation	<ul style="list-style-type: none"> • Getting a good grad in English class is the most satisfying thing for me. • The most important thing for me right now is improving my overall grade point average, so my main concern in this class is getting a good grade. • If I can, I want to get better grades in this class than most of the other students. • I want to do well in this class because it is important to show my ability to my family, friends or others.
3. Task value	<ul style="list-style-type: none"> • I think I will be able to use what I learn in this English class in other courses. • It is important for me to learn the course material in this class. • I am very interested in the content area of this English course. • I think the course material in this English class is useful for me to learn. • I like the subject matter of this course. • Understanding the subject matter of this course is very important to me.
4. Control of learning beliefs	<ul style="list-style-type: none"> • If I study in appropriate ways, then I will be able to learn the material in this course. • If I don't understand the course material of this class, it is because English is too difficult. • It is my own fault if I don't learn the material in this course. • If I can understand the course material in this class, it is because of the English teacher. • If I work hard enough, I will understand the course material. • If I don't understand the course material, it is because I didn't try hard enough. • If I don't learn the course material well in this class, that is because of the English teacher. • If I am able to understand the course material, it is because the course material is easy to learn.
5. Self-efficacy (for learning and performance)	<ul style="list-style-type: none"> • I'm certain I can understand the most difficult material presented in the readings for this course. • I'm confident I can understand the basic concepts taught in this course. • I'm confident I can understand the most complex material presented by the English teacher in this course. • I'm confident I can do an excellent job on the assignments and test in this course. • I am certain I can master the skills being taught in this class.
6. Expectancy	<ul style="list-style-type: none"> • I believe I will receive an excellent grade in my English class. • I expect to do well in this class. • Considering the difficulty of this course, the teacher, and my skills, I think I will do well in this class.
7. Test anxiety	<ul style="list-style-type: none"> • When I take an English test I think about how poorly I am doing compared with other students. • When I take an English test I think about items on other parts of the test I can't answer. • When I take tests I think of the consequences of failing. • I have an uneasy, upset feeling when I take an English exam. • I feel my heart beating fast when I take an English exam.