Show Them How, but Don't Intrude: Autonomy Support Promotes EFL Classroom Attendance and Achievement, Teacher Control Hinders It

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Moving from secondary to tertiary education, students in Japan often need extra support to become accustomed to the more autonomous learning environment of university. In order to document the influence university teachers may have on this process, I investigated how teachers support or thwart students' autonomy, and the effects of these practices on attendance and achievement. 250 students from 4 universities completed surveys on their instructors' teaching styles. Students who perceived more support from their teachers showed higher attendance and achievement, while students who perceived more intrusive teaching had lower attendance and course grades. Implications for teaching at the university level are discussed.

中等教育から高等教育へ移る中で、学生は、より自律した学習環境に慣れる為のサポートがしばしば必要になる。この論文では、大学教員の学生に対する自律の支援または自律へのお節介な介入が出席率や学習達成度に及ぼす影響を検討するため、四校の大学から250名の学生を調査し、教員による自律への支援・介入の授業スタイルについてアンケートを実施した。アンケートの結果、自律支援が学生の出席率と学習達成度を高める一方、自律への介入を感じた学生は出席率と学習達成度が低くなったことがわかった。この調査結果がもたらす高等教育現場への影響を論じる。

A major goal in many tertiary language learning contexts is to help students to become independent lifelong learners (Fryer, 2015). The transition from secondary to tertiary education generally involves moving from teacher- or parent-directed regulation of engagement, motivation, and learning towards self-regulation (Dresel et al., 2015). In order to lead students toward more independent learning, support for individuals' autonomy might help them in this process (Nakata, 2010; Ushioda, 2011). Support for students' autonomy involves promoting sustainable and continuous engagement by providing interest and a sense of identification with the learning tasks, even in compulsory educational situations (Reeve & Assor, 2011).

For Japanese university language learners taking compulsory language courses, especially many false beginners (Richards & Schmidt, 2010), English is viewed as an obstacle or unnecessary impediment to the completion of their more relevant majors (Fryer, Bovee, & Nakao, 2014; Fryer, Ozono, Carter, Nakao, & Anderson, 2013). Many of these students subsequently fail to attend classes, in part due to issues of motivation (Fryer, Ginns, Howarth, Anderson, & Ozono, 2017). In this situation, teachers' actions, including those intended to benefit students, may be interpreted negatively if they are seen as controlling (Reeve, 2012), potentially compounding the problem. When this happens, students may choose to disengage (Jang, Kim, & Reeve, 2016). This is perhaps evidenced in the tertiary setting by class non-attendance.

In this paper, I explore the role of students' perceptions of their teacher as supportive or controlling, and the effect of these factors on attendance and course achievement. Using structural equation modeling, I propose a model for motivational processes supporting students' language learning during the transition to the more autonomous tertiary learning environment.

Autonomy Supportive Teaching

Autonomy support has been defined as "whatever a teacher says and does during instruction to facilitate students' perceptions of autonomy and experiences of psychological need satisfaction" (Reeve, 2012, p. 167). The opposite, autonomy thwarting, is represented by teachers' controlling behaviors which remove students' agency (Reeve & Jang, 2006). These broad definitions allow for multiple interpretations across cultures. It is thus important to elaborate what may support or thwart students' autonomy in Japanese tertiary EFL courses.

Empirical studies have offered a number of suggestions regarding behaviors that teachers can use to facilitate autonomous motivation. While research has indicated that choice may help support a sense of autonomy (Dörnyei & Csizer, 1998), choice by itself is not always appropriate across cultures (Furtak & Kunter, 2012; Iyengar & Lepper, 1999). Instead, a sense of choice in line with cultural practice and values is more likely to promote a sense of

autonomy (Katz & Assor, 2006). Students who feel that their choices are in line with their cultural values might feel autonomously motivated (Chirkov, 2009). In many situations, relevance of the learning task is important for supporting autonomy (Assor, Kaplan, & Roth, 2002). In Japanese culture, this may involve providing clarity, guidance, and appropriate pacing (Oga-Baldwin & Nakata, 2015).

One of the first studies that indicated specific behaviors that support or damage students' sense of autonomy and promote motivation was conducted in a laboratory setting. Reeve and Jang (2006) used pairs of undergraduate students acting in a teacher-student paradigm and investigated the correlations between certain types of instructional behaviors and students' perceptions of autonomy. The study found that teachers who listen, provide useful guidance at the right time, and allow students to find their own ways to approach learning tasks were more supportive of autonomy. At the same time, controlling instructional styles, such as monopolizing learning materials, providing students with a right answer without opportunity for induction, and uttering directives and commands, correlated negatively with students' experiences of autonomy, and thus, were perceived as autonomy thwarting. Based on these experimental designs, we can assume that these behaviors might also apply in real classrooms in similar ways.

Looking at real students' experiences has yielded similar results. Autonomy-thwarting behaviors are found in studies of demotivation (Kikuchi, 2009; Sakai & Kikuchi, 2009). Sakai and Kikuchi (2009) investigated possible causes of demotivation among Japanese high school students. Their analysis yielded teachers' competence and teaching styles (i.e., teachers' one-way explanations, inappropriate pacing of the lessons, poor pronunciation, and ambiguous instructions) as a demotivating factor in high school English class. Through interviews and questionnaires with Japanese university students, Kikuchi (2009) found learners attributed their demotivation to learn English to teachers' instructional behaviors such as uncommunicative teaching styles and inefficient support. Under the framework of autonomy supporting and thwarting, failure to teach clearly and communicatively represents autonomy thwarting.

Large scale longitudinal studies of autonomy-supporting and autonomy-thwarting behaviors clearly indicate the effects on students' behavior and achievement. Jang and colleagues (2012) found that a large sample of Korean secondary students who received more autonomy support from their teachers showed higher engagement and achievement over the course of a semester. In a follow up study, the researchers demonstrated that engagement significantly increased in relation to teacher autonomy support, and decreased in relation to perceptions of autonomy-thwarting behaviors (Jang, Kim, & Reeve, 2016). Both studies used well-tested instruments and robust longitudinal models of the classroom environment. These results indicate the importance of autonomy-supporting and thwarting behaviors for defining the classroom dynamic.

The above literature defines autonomy-supporting and thwarting teaching, as well as their outcomes in general education. Extensive research has also indicated the positive effects of autonomy on learning and achievement in foreign language education. Noels and her colleagues (1999) demonstrated that greater autonomy support had a positive influence on students' intrinsic motivation. Teachers who gave clear and informative instruction in support of students' autonomy helped students to feel a stronger desire to learn the language, as well as a desire to continue learning beyond the current course. At the same time, teachers who were more controlling increased student anxiety and decreased students' motivational intensity and perceptions of their ability.

Further studies found similar results with students learning Spanish as a foreign language. Noels (2001) showed that students felt less autonomous and intrinsically motivated about language learning when they found their teachers to be more controlling. They were likewise better supported by teachers who were more informative in their communication. Another study in a similar context looked at students of Japanese as a foreign language in Canada. Through interviews with select groups of students, the researchers found that students were more autonomously motivated by teachers who provided autonomy support by generating additional interest in the target culture (McEown, Noels, & Saumure, 2014).

In Japanese universities, Fryer and Bovee (2016) found that teachers have a positive effect on students' beliefs about the value of their efforts and the learning tasks. This study showed that while students had negative perceptions of required online vocabulary assignments, teachers could influence students with negative attitudes toward e-learning coursework to have more positive attitudes. However, this study again did not directly measure the negative effects that teachers could have on task effort and completion.

The question remains as to the effects of teachers' support in Japanese tertiary contexts. Many students in Japanese universities perceive attendance as optional (Fryer et al., 2017), especially in

compulsory classes (Fryer et al., 2013); thus, the ability of the teacher to provide students with high quality instruction may have a strong effect on the decision of students whether or not to attend class. Recognizing that teachers can either thwart or support autonomy, more information is needed to understand how teachers' practices may influence students' behavior with regard to their learning, such as class attendance, as well as their resulting course achievement.

Research Questions

Building on the literature on how teachers can create a motivating learning environment, this study addresses the following research questions:

1. To what extent do autonomy-supportive teaching behaviors predict students' attendance and achievement in tertiary foreign language classes?

2. To what extent does positive affect for foreign language predict students' attendance and achievement in tertiary foreign language classes?

3. To what extent do autonomy-thwarting teaching behaviors predict students' attendance and achievement in tertiary foreign language classes?

4. To what extent does negative affect for foreign language predict students' attendance and achievement in tertiary foreign language classes?

Based on the previous literature, autonomy-supportive teaching practices and positive student affect were predicted to positively influence both achievement and attendance, while autonomy-thwarting teaching and negative student affect would negatively influence these outcomes (Jang et al., 2012; 2016). The hypothesized structural equation model is presented in Figure 1.
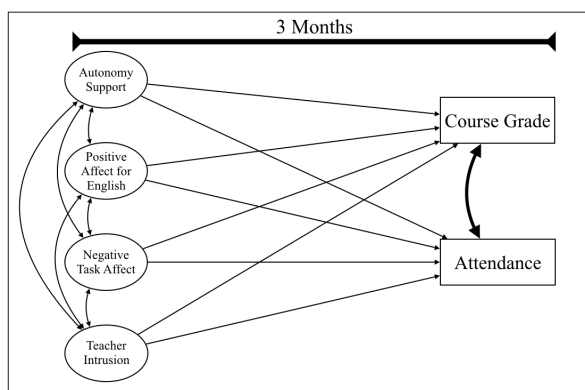

Figure 1. Hypothesized structural model.

Method
Participants

The participants of this study were 250 first-year undergraduate students (female $n = 100$) studying at 4 different universities in western Japan. The gender balance in each class was representative of the gender balance at each school. These universities ranged from selective national universities to non-selective private institutions. Fourteen different classes participated in the study. Class sizes ranged from 8 to 32 students per class. Students were assigned to these classes based on their English proficiency. All classes were mandatory first and second-year courses, though class curriculum varied between speaking/listening classes, reading/writing classes, and four-skills classes depending on the institution. Based on placement test results, all participating classes were designated at the lowest proficiency level of A1 on the Common European Framework of Reference (CEFR). All students were majoring in vocational fields such as business, commerce, engineering, or nutrition and were taught in their language classes by native English speakers. Prior studies have noted that students in similar settings may suffer from motivational deficits and struggle to pass compulsory first-year courses (Fryer et al., 2013).

Students completed surveys in the final minutes of their third compulsory English class. Surveys were written in Japanese. The third class was used to allow students to have a clear idea of their teachers' personalities and approaches to instruction based on the first two classes of the semester; participating teachers also agreed that this class would cause the least interruption to the semester plan. Participation in this study was voluntary by both students and teachers, as was noted both on the surveys and by the instructors conducting the classes. Classes were not observed by external researchers or administrators. Survey completion required roughly 10 minutes of class time.

Instruments
Survey

Japanese versions of the scales measuring autonomy-affecting teaching behaviors used by Assor and colleagues (2002) were constructed using translation and back-translation by bilingual individuals. Prior to implementing this study, a pilot study was conducted during first-year students' orientation at one of the participating universities to determine internal validity of the factors. Four factors were indicated from this pilot: two supporting student autonomy and two thwarting autonomy.

These factors were further validated in subsequent focus-group interviews with students at each university. The final factors measuring support for foreign language learning were autonomy support (Cronbach's α = .72) and positive affect for learning English, similar to intrinsic motivation (Cronbach's α = .80), while autonomy thwarting factors were negative task affect (Cronbach's α = .76), and teacher intrusion (Cronbach's α = .79). All scales showed acceptable internal reliability (Cronbach's α > .70; Devellis, 2012).

Course Grade

Students' achievement was measured using their course grade. Grading scales were from 0–100%, with passing marks set at 60%. Grades were based on a combination of weekly assignments and a final test graded by the instructor in each class. Grades were calculated at the end of the semester.

Attendance

As a further measure of students' behavioral engagement and motivation for the course, weekly attendance was recorded for each participant. Attendance might provide indication of students' willingness to participate in the classes under the comparatively open policies and normalcies of Japanese universities (Fryer et al., 2017). Courses were held once a week for 15 weeks, and the minimum attendance required to pass each course was set at 10 times per semester. This data was collected at the end of the semester.

Analyses

A two-step approach to construct validation was employed in this study. As recommended by Anderson and Gerbing (1992), confirmatory factor analyses were first used to ensure construct validity of the factors. Following the confirmation of construct validity, the structural model was tested. In the structural model, the latent factors from the survey were treated as correlated factors, representing the fact that they were measured together and thus no causal influences could be drawn. The four factors were hypothesized to influence students' attendance and achievement in class measured at the end of the semester. Gender was used as a correlate with survey attitudes and course outcomes. Fit was determined to be acceptable using standard structural equation modeling cutoffs (Kline, 2011): fit is acceptable if root mean square of error approximated (RMSEA) < .08, comparative fit index (CFI) and Tucker-Lewis Index (TLI) > .90. Confirmatory factor

analyses and structural equation models were conducted using M*Plus* 7.3 (Muthén & Muthén, 2015).

Standardized correlations (*r*-values) and predictive coefficients (betas, β) were interpreted according to standard procedures (Keith, 2015). Both betas and *r*-values are represented on a scale from -1.0 to 1.0, with negative values representing a negative relationship; movement of one standard unit on the scale for the predictor variable indicates a corresponding decrease on the standardized scale for the outcome variable. Positive values representing a positive relationship, i.e. one standard unit increase for the predictor corresponds to an increase for the outcome variable. Predictive coefficients (betas) were interpreted using Keith's (2015) suggested guidelines. Betas below 0.05 are "too small to be considered meaningful"; those above 0.05 but less than 0.10 are considered "small but meaningful"; those above 0.10 but less than 0.25 are considered "moderate"; and those above 0.25 are considered "large."

The nested nature of the data (i.e., participants nested within classes) was accounted for using cluster-robust standard errors. For this analysis, each individual class was treated as a cluster. Intraclass correlations for the predictor variables ranged from .02 to .06. The number of level 2 clusters (i.e., the number of classes) was potentially small enough to lead to biased results (< 50; Maas & Hox, 2005) and other computational issues (Steenbergen & Jones, 2002); therefore, cluster-robust standard errors were used. Missing data accounted for less than 1% of the volume of cases and missing data was treated with full information maximum likelihood estimation in M*Plus*.

Results

Confirmatory factor analyses results indicated sufficient fit for the four-factor hypothesized model, $\chi^2 (48) = 90.159$, p < .001, $\chi^2/df = 1.87$, RMSEA = .059 [CI = .035, .052], CFI = .95, TLI = .93. Factor correlations were low to moderate (*r* = .04 ~ .64), indicating sufficient discriminant validity between factors and little collinearity. Factor coefficients were all strong, with the weakest loading at .52. Modification indices indicated no mis-specified factors (i.e., all modification index values > 20 and expected parameter changes smaller than the smallest coefficient in the hypothesized confirmatory model). Table 1 displays the factor coefficients and the related items. Analyses confirm that the latent factor model was sufficient to test the structural predictive relationship between these latent factors and the expected outcome variables (Anderson & Gerbing, 1992; Kline, 2010).

Table 1. *Factor Items With Wordings and Measurement Coefficients*

Factor	Item Wording	Coefficient
Teacher autonomy support	My teacher listens to my opinions 先生が自分の考えや意見を聞いてくれる	.52
	My teacher helps me find my own way to study 先生が自分の勉強方法を見つけれるよう力付けてくれる	.77
	My teacher shows me how to solve problems in my own way 先生が自分自身での問題の解決方法を教えてくれる	.76
Positive affect for English (Intrinsic Motivation)	I feel at ease when studying English 英語を勉強するとき楽な気分になる	.64
	I enjoy studying in English class 英語の授業を楽しめる	.80
	The material in this English class interests me 英語の授業内容に興味がもてる	.89
Negative task affect	My teacher forces me to read boring materials 先生に退屈な教科書、話、説明などを読ませられる	.75
	My teacher makes me practice annoying conversations 先生にわずらわしい会話を練習させられる	.79
	My teacher forces me to complete worksheets I do not understand 先生に理解できないようなプリントをさせられる	.67
Teacher Intrusion	My teacher doesn't let me work at my own pace 先生は自分のペースで勉強させてくれない	.67
	My teacher always tells me what to do 先生はいつも命令している	.80
	My teacher forces me to do everything his/her way 先生は自分に全てにおいて先生の方法を押し付けている。	.83

Note. Course *grade* and *attendance* were strongly positively correlated (*r* = .50). Perceptions of *autonomy support* correlated with positive affect for English (*r* = .45), but showed no other meaningful correlations. *Positive affect for English* negatively correlated with both *negative task affect* (*r* = -.48) and *teacher intrusion* (*r* = -.40). *Negative task affect* strongly correlated with *teacher intrusion* (*r* = .64).

Confirmation of the measurement model thus allowed for testing of the structural model. Course achievement, and attendance were all added to the model for testing. Model fit for the structural model was again acceptable, χ^2 (72) = 112.119, p < .001, χ^2/df = 1.55, RMSEA = .055 [CI = .038, .071], CFI = .95, TLI = .93. The complete structural model with standardized coefficients is presented in Figure 2. The correlation matrix for this model is displayed in Table 2.
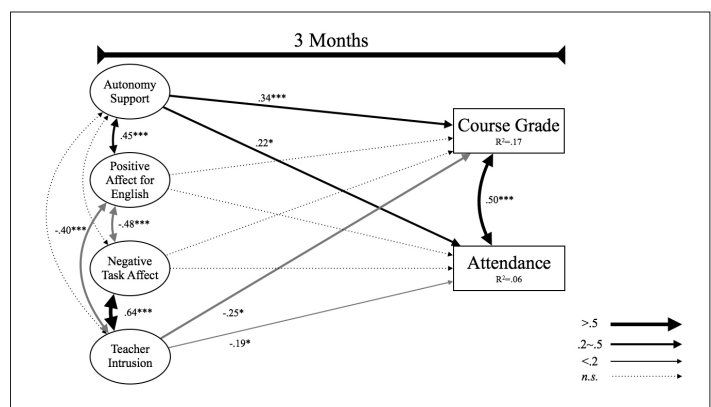

Figure 2. Predictive structural model with standardized results.

Table 2. *Correlation Matrix for the Structural Model, With Descriptive Statistics and Internal Reliabilities*

Variable	1.	2.	3.	4.	5.	6.	7.
1. Autonomy Support	-	.45***	.03	-.11	.37***	.16*	-.17*
2. Positive Affect for English		-	-.40***	-.48***	.22**	.02	-.16*
3. Negative Task Affect			-	.64***	-.03	-.04	.02
4. Teacher Intrusion				-	-.21**	-.13	.27***
5. Grade					-	.53***	-.26**
6. Attendance						-	-.12
7. Gender							-
Mean	4.44	3.62	2.52	2.45	76.36	12.64	-
SD	.79	.99	.91	.95	15.74	2.33	-
95% CI	4.34, 4.54	3.50, 3.75	2.41, 2.63	2.33, 2.57	74.40, 78.32	12.35, 12.93	-
Cronbach's α	.72	.80	.76	.79	-	-	-

Note. Gender: Female = 0, Male = 1, $* \leq .05$, $** \leq .01$, $*** \leq .001$

Autonomy-supportive teaching predicted course grade (β = .34) and attendance (β = .22). Teacher intrusion showed a negative relationship with students' ultimate course achievement (β = -.25) and student attendance (β = -.25). No other effects were found. The model predicted roughly 17% of the variance on students' achievement, and 6% of the variance for attendance.

Discussion

The analysis for research question 1, *To what extent do autonomy-supportive teaching behaviors predict students' attendance and achievement in tertiary foreign language classes?*, indicated a positive relationship between teachers' autonomy-supportive behaviors and students' course grade and attendance, demonstrated by the positive coefficients in the model. In answer to question 2, *To what extent does positive affect for foreign language predict students' attendance and achievement in tertiary foreign language classes?,* students' positive affect for learning English correlated with their perceptions of autonomy support. However, it did not show a direct influence on achievement or attendance. Thus, liking English class made little difference on student attendance and achievement; students' perceptions of their teacher as one who would respect their ideas and opinions had a larger effect. The total pattern of effect sizes described in the results are comparable, and in some cases superior, to those found in the work on the L2 Motivational Self-System.

In the results for research question 3, *To what extent do autonomy-thwarting behaviors predict students' attendance and achievement in tertiary foreign language classes?,* the structural regression coefficients indicated that students' perceptions of their teachers as intrusive negatively predicted final course outcomes. In the results for research question 4, *To what extent does positive affect for foreign language predict students' attendance and achievement in tertiary foreign language classes?,* a negative affect for learning tasks did not influence attendance or course grade, but did strongly correlate with feelings of teacher intrusion. Teachers thus could also have a negative effect on student learning behaviors, while a dislike for English (sometimes colloquially known as *eigo-girai* or 'hating English') had no discernable effect. These results differ from work on e-learning in similar settings (Fryer & Bovee, 2016).

Unsurprisingly, course grade and attendance also strongly correlated. Students who came to class more regularly were more likely to receive higher grades. One possibility is that students' perceptions that the learning situation - most specifically how supportive or intrusive their teachers were - had an impact on attendance, and these results indicate that autonomy supportive teaching may function to promote students' choice to attend class.

Implications

These results indicate the more situational, interpersonal nature of classrooms in tertiary settings. Students in compulsory classes are required to enroll for a specific day and time. Thus, their intrinsic motivation or task amotivation may be less important because they are required to attend the specified class. At the same time, they retain greater choice as to whether or not to attend class than in secondary settings, and teachers' support may facilitate or prevent this attendance. As such, we may infer attendance as a sign of volitional engagement. Although teachers might cite the idea that students are not interested in class, in this situation, positive or negative task affect had no significant effect on the measured classroom outcomes and was moderately-to-strongly correlated with perceived instructional behaviors. This would indicate that the level of interest that students brought to classes might not be as important as the way teachers created a classroom culture. Rather than students' pre-existing motivation, teachers should focus on promoting a positive classroom climate.

Accordingly, teachers should play a larger role in creating a classroom environment where students agree to attend class and participate in the learning tasks. This finding agrees with results found in other settings, where teacher behaviors can influence students' effort beliefs and perceptions of task value (Fryer & Bovee, 2016) as well as students' choice to actively engage or disengage in their schoolwork (Jang et al., 2016).

Limitations

Interpretation of these findings should be done cautiously. These results come from one semester of students' tertiary education. Longitudinal data can provide a more complete picture of the effects of teachers' instruction. This model used a limited number of variables; additional variables, such as students' own perceptions of their abilities, goals, and engagement may have additional effects. Finally, what teachers did and said in these classes that supported students' autonomy remains unclear; for this, more qualitative data on classrooms is necessary.

Conclusion

These results indicate the importance of an autonomy supportive environment for student learning in tertiary settings, and indicate the potential mediating role that it plays. University students, as quasi-adult members of Japanese society, are learning how to behave independently. By providing them with the guidance and tools necessary to succeed on their own and avoiding excessive intrusion on their gradually forming independence, teachers may provide them with an environment where they can thrive.

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