The GAS that Fuels Motivation: Satisfying the Need for Relatedness in the Guided-Autonomy Syllabus

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Abstract

The guided-autonomy syllabus (GAS) is a 15-week course designed for the EFL university classroom to foster learner autonomy skills. Previous classroom research with GAS, based on a self-determination theory framework, revealed its potential to facilitate learner autonomy and enhance learning motivation of students in the EFL context. A previous study of GAS warranted the examination of the need to satisfy the basic psychological need of relatedness. The aim of this study was to measure the influence of a restructured GAS on students’ learning motivation and perceived autonomy, which has been shown to satisfy the need for relatedness. The restructured GAS included the new components of (a) class journals to increase student-teacher communication and (b) in-class peer advising sessions. Pre- and post-survey responses from students who experienced GAS showed that the students perceived the course as more autonomy-supportive. There were also significant increases in intrinsic forms of motivation and significant decreases in amotivation. One control group showed a significant increase in one form of intrinsic motivation, while the other control group displayed no significant increases or decreases. The results from this study suggest that adding components that aim to satisfy the basic psychological need for relatedness to the GAS enhances its potential to increase student learning motivation. These results are discussed based on the principles of self-determination theory.

1 Introduction

The self-determination theory (SDT), a macro theory of human motivation, posits that humans are innately curious and are intrinsically motivated to develop knowledge and learn (Deci & Ryan, 2000). SDT classifies learning motivation into intrinsic and extrinsic motivation, and amotivation. Intrinsic motivation is the most internal form of motivation as it is internally generated. SDT breaks down extrinsic motivation into four regulations (integrated, identified, introjected, and external). For instance, studying the target language is extrinsically motivated by integrated regulations when learning is adopted into one’s values and needs but is contingent upon reward (e.g. study is beneficial for the future). Identification regulation is learning that is personally important,
but also contingent upon an external reward (e.g. one studies because everyone else is doing so). Introjected regulation is when learning is not fully accepted as the student’s own (e.g. does not want to get a bad grade), and external regulation is when learning is done to satisfy external demands or rewards (e.g. one is forced to study by the curriculum or teacher). Amotivation is the lack of intent to learn. External and introjected regulation are said to be more extrinsic orientations towards learning, while identified and integrated are more intrinsic. Identified and integrated regulations are instrumental motivators. These external regulations are on a continuum with amotivation to the far left and intrinsic motivation placed on the far right (see Figure 1). According to SDT, these regulations reflect to what extent a person’s values have been internalized.

Fig. 1. Intrinsic-extrinsic motivation continuum (Deci & Ryan, 2000)

“Internalization is the process of taking in a value or regulation” (Deci & Ryan, 2000, p. 60). Internalization occurs based on prior experiences and current situational factors. Research in SDT has found that students’ amotivation will decrease and extrinsic forms of motivation will be internalized when the three basic human needs of autonomy, competence, and relatedness are satisfied in an autonomy-supportive environment (Niemiec & Ryan, 2007). The need for autonomy is satisfied when the student feels he or she is choosing to study for himself or herself and is not compelled by some external force. The need for competence is satisfied when the student feels it is possible to carry out or complete a task. The need for relatedness is met when the student feels that his peers and teacher are supportive.

Research in SDT points to the importance of not undermining intrinsic motivation (Niemiec & Ryan, 2007). The undermining of intrinsic motivation happens in controlling environments with external forces, such as when a teacher constantly monitors and evaluates without giving clear reasons (Kage & Namiki, 1990). In a Japanese EFL context, completely eliminating external forms of motivation in an educational institution involving the award of diplomas, credits, and test scores is not feasible. However, some forms of instrumental motivation actually play a key role in language learning in Japan (Kimura, Nakata, & Okumura, 2001).

This undermining of intrinsic motivation may be the reason why the educational field is in a never-ending discussion on the need to motivate students. When students do not seem to be motivated, SDT suggests the following:

Because extrinsically motivated behaviors are not typically interesting, the primary reason people initially perform such actions is because the behaviors are prompted, modeled, or valued by significant others to whom they feel (or want to feel) attached or related. This suggests that relatedness, the need to feel belongingness and connectedness with others, is centrally important for internalization … For example, Ryan, Stiller, and Lynch (1994) showed that the children who had more fully internalized the regulation for positive school-related behaviors were those who felt securely connected to, and cared for by, their parents and teachers. (Deci & Ryan, 2000, p. 73)

The authors investigated learning motivation in the Japanese EFL context using the guided-autonomy syllabus (GAS). Fukuda, Sakata and Takeuchi (2011) used a modified version of the Academic Motivation Scale (AMS; Vallerend, Blais, Briere, & Pelletier, 1989), which is based on the intrinsic-extrinsic motivation continuum of SDT. The analysis of the responses for the pre- and post-AMS revealed the potential of GAS to enhance intrinsic motivation towards learning a foreign language. In their study of two groups of students, one group had a significant increase in
intrinsic motivation after the course. However, the other had an insignificant but slight decrease in intrinsic motivation, including a slight increase in amotivation. The authors argued that the difference was due to one aspect of the course, which was the building of the student-teacher relationships. Within the theoretical framework of SDT, the importance of the student-teacher relationship is the basic psychological need for relatedness. Relatedness is defined as “the need to establish close bonds and secure attachments with others, and it reflects the desire to be emotionally connected to and interpersonally involved in warm, caring relationships” (Reeve, Deci, & Ryan, 2004, p. 35). Along with the need for autonomy and competence, relatedness is one of the three basic psychological needs that must be satisfied for students to be actively engaged in the classroom. SDT calls upon the teacher to intrinsically motivate the students by providing a classroom environment in which students perceive the course as autonomy-supportive and feel that their needs are met (Reeve, Deci, & Ryan, 2004). In the study by Fukuda et al. (2011), the major difference between the two classes was that one teacher was frequently available to the students and had a substantial amount of weekly written communication providing students with more opportunities to satisfy their need for relatedness. Thus, the GAS was then restructured to include in each class: (a) a class journal to enhance student-teacher communication in the form of advising; and (b) in-class peer advising activities. The aim of this study is to measure how students’ learning motivation increased in the restructured GAS.

2 Theoretical background

2.1 Learning motivation in the EFL context

Learning motivation is vital in language learning and has been under debate for some time now. Research on learning motivation in the language learning classroom began with the pioneering work of Gardner and Lambert (1959, cited in Ushioda, 2012) who paid more attention to the social-psychological factors of learning (e.g. cultural and attitudinal) and less on instructional variables (e.g. teacher and teaching methods) for his Canadian ESL students. However, Dornyei (1990) argued that a distinction has to be made between the ESL and EFL contexts. Since then, research in EFL learning motivation has flourished. Noels and her colleagues (2000, 2001) studied intrinsic motivation, which they argued, was central “to sustained effort at the learning task” (2000, p. 425) while validating the theoretical framework of SDT within EFL research. Honda and Sakyu (2004, 2006) went on to conduct research under the SDT framework in the Japanese EFL context, and confirmed its validity as well. Since then, research using the SDT framework in the Japanese EFL context has flourished (e.g. Hiromori, 2006; Murai 2010; Otoshi & Hefferman, 2008, Tanaka, 2009; Tanaka & Hiromori, 2007; Yashima, 2009).

Fukuda et al. (2011) suggested using the SDT framework as well in the Japan university EFL context. GAS not only introduces and raises awareness of learner autonomy, but also enhances learner motivation by attempting to satisfy students’ needs for autonomy, competence, and relatedness. In short, the previous GAS aimed to satisfy the need for (a) autonomy through the gradual transfer of learning responsibility to students, (b) competence by raising students’ confidence in learning English, and (c) relatedness by providing a cooperative and safe learning environment in which students can work with their peers and teacher. The previous GAS was based on the Can-do Booster worksheet (Fukuda et al., 2011, Appendix), which focused on each aspect of the learner autonomy process (see Table 1; e.g. envisioning the ideal self, setting long and short term goals, creating learning plans, executing those plans while monitoring learning, evaluation of learning and learning plans, and revision of learning goals to restart the self-coaching learning cycle in Figure 2).
### Table 1. Content of the Can-Do Booster worksheet (Fukuda et al., 2011)

<table>
<thead>
<tr>
<th>Worksheet Content</th>
<th>Aims of each activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 1. Current and Future Goals</td>
<td>Students remember long-term and short-term goals they have and/or make new ones in life and learning</td>
</tr>
<tr>
<td>No. 2. Achieving in the past and Creating Goals</td>
<td>Students relate their goals to English, and revisiting their goals potentially helps sustain motivation.</td>
</tr>
<tr>
<td>No. 3. My Learning Styles</td>
<td></td>
</tr>
<tr>
<td>No. 4. How I Stay Motivated Students reflect on past experiences learning styles.</td>
<td></td>
</tr>
<tr>
<td>No. 5. My Daily Plan</td>
<td>After revisiting No. 1 to 4, students try to set a new study goal along with a study plan.</td>
</tr>
<tr>
<td>No. 6. The Learning Contract</td>
<td>After student-and-teacher counseling sessions, students create learning contracts which they can change any time after assessment.</td>
</tr>
<tr>
<td>No. 7. Self-Assessments</td>
<td></td>
</tr>
<tr>
<td>No. 8. When I’m Feeling Down</td>
<td>This is a reading section of the journal in that it reminds students what to do when their motivation is down trying to enhance it.</td>
</tr>
<tr>
<td>No. 9. My Happy &amp; Positives!</td>
<td>Students can log in the small successes they have in their everyday life and studies.</td>
</tr>
<tr>
<td>No. 10. My Summer English Plan</td>
<td>Towards the end of the course, students create a plan to continue their studies autonomously with teacher guidance.</td>
</tr>
</tbody>
</table>

**Fig. 2. Self-coaching learning cycle in GAS (Fukuda et al., 2011)**

### 2.2 Learner autonomy in the EFL context

In the Japanese EFL context, study time needs to be increased significantly for students to gain proficiency in their English skills (Jimbo, 2011). With the limited time available for English courses in any educational setting, educational institutions must equip learners with the autonomy skills necessary to study effectively out-of-class or upon completion of any courses to meet any language goals. Though learner autonomy was first introduced into foreign language education by Holec (1981, cited in Little, 2012) for its importance for lifelong learning, the term did not officially enter the Japanese educational context until 2002 with the new national curriculum (Kojima, 2010). Intended to promote learning in the EFL classrooms in Japan, learner autonomy is still in its developing stages (Collins & Suzuki, 2012; Kojima, 2010).

Learner autonomy is the capacity for the language learner to take effective and efficient control over their (a) learning behavior, (b) learning situation, and (c) psychological aspects of learning (Benson, 2011). In other words, autonomous learners are able to manage their own learning,
choose suitable content for their language learning, and understand the cognitive processes of effectively learning a language. Researchers agree that learner autonomy is a capacity the learner already possesses. Nevertheless, it is crucial for educators to assist in helping learners develop this capacity (Benson, 2011). Research in EFL shows that learner autonomy skills are an integral part of the development of the target language proficiency (Apple, 2011; Dafei, 2007; Dislen, 2011; Little, 2007; Okazaki, 2012; Qi, 2011). However, in mainstream English lessons in Japanese secondary EFL educational contexts, the primary focus is on merely practicing the language based on the target grammar or providing opportunities to practice situational language use (Tanaka, 2012) without any activities to develop learner autonomy skills. Students who have been taught in such mainstream lessons have difficulties with autonomous learning after entering the more autonomous tertiary educational context (Jimbo, 2011). Thus, training to develop learner autonomy skills is essential (Victori, 2007) and Japanese universities are now developing strategies to enhance learner autonomy skills in their students and in teacher training (Kojima, Hiromori, & Ozeki, 2010).

Veerappan, Suan and Sulaiman (2011) noted the importance of the process of scaffolding in developing learner autonomy skills in language learners. They argue that the first step in the learning process should be teacher-controlled with a gradual shift in learning responsibility where “the teacher only guides or provides partial guidance to the students” (p. 935). GAS aims to foster learner autonomy skills in this manner (see Table 2). The first phase of the GAS syllabus is teacher-centered with lectures on second language acquisition and learner autonomy. In the second phase of the GAS, most students have set short- and long-term learning goals in creating weekly learning plans. In the following weeks in class, they reflect on their weekly learning and then revise their learning plans with advice mainly from the teacher. In the final phase of GAS, students take complete responsibility for their learning and class time is used for language practice based on students’ individual learning goals and plans. Time is also allotted for students to self-assess their learning and revise their learning plans.

### Table 2. Three phases of GAS (Fukuda et al., 2011)

<table>
<thead>
<tr>
<th>Phase 1 (Weeks 1–5)</th>
<th>Teacher lectures and student discussion and assignments on learner autonomy, self-coaching, and study management. (Envisioning the ideal L2 self, setting short- and long-term goals, and creating first learning plans)</th>
</tr>
</thead>
<tbody>
<tr>
<td>100% teacher-centered</td>
<td></td>
</tr>
<tr>
<td>Phase 2 (Weeks 6–10)</td>
<td>From the teacher’s advice, the students develop learning plans and execute them. (Creating weekly learning plans and revising them. There are also lectures, discussions, and assignments in self-assessment learning management, learning strategies, and affect in language learning)</td>
</tr>
</tbody>
</table>
| 50% teacher-centered  
50% student-centered |                                                                                                                                                                                                 |
| Phase 3 (Weeks 11–15) | Students take responsibility for their learning and create their own learning plans, execute them, and revise them based on reflection and self-assessment. (Students create future learning plans as they develop self-coaching skills by continuing their weekly learning. Advice from peers and teacher come only when asked) |
| 100% student-centered |                                                                                                                                                                                                 |

### 2.3 Learner motivation and learner autonomy in the EFL context

The SDT “explicitly relates motivation to autonomy” (Dickenson, 1995, p. 171). Karatas, Alci, Yurtseven and Yuksel (2015) found that autonomous learning and intrinsic motivation predict academic achievement. Research results such as these beg the question whether autonomy precedes motivation or vice versa. Spratt, Humphreys and Chan (2002) studied this exact question by reviewing a large-scale study in Hong Kong claiming that motivation precedes autonomy in that motivation is a key factor that influences the extent to which learners are ready for autonomous learning. Conversely, Dickenson (1995) argued that learners must perceive that they are in control
of their own learning in an autonomy-supportive environment. In their study with 332 student learning Spanish, Noels, Clément and Pelletier (2001), working within the SDT framework, provided empirical evidence and concluded that autonomy and motivation had a connection. Moreover, they argued that intrinsic motivation was enhanced when teachers supported students’ autonomy. As Dickenson (2005) discusses based on SDT principles (Deci & Ryan, 1985), effective learning is a result of an autonomy-supportive environment and an environment that the learners feel is informational. An informational environment facilitates independent learning by providing opportunities for choice and decision-making. Similarly, for participants were in a blended learning context, Murphy and Hurd (2011) argue that it is the teacher’s role to create and maintain an autonomy-supportive environment for students to develop learner autonomy skills.

Dickenson (2005) also points out that sometimes in formal education settings, it is necessary to use controlling or extrinsic incentives to coerce students to learn to develop intrinsic motivation. One way is by helping learners perceive grades and feedback as informational events that help students keep their self-determination. In the tertiary educational context, in which teachers can be responsible for hundreds of students and only meet their students once a week, Garcia and Pintrich’s (1996) study suggests that creating an autonomous environment is key in fostering intrinsic motivation as well as “continuing motivation” (p. 477). They found that the perception of autonomy predicted motivation later in the semester.

As noted above, students’ perceived autonomy in the learning context helps to satisfy the need for relatedness, which internalizes external forms of motivation. Ryan, Stiller and Lynch (1994) investigated the influence relatedness with teachers had on students’ learning motivation and found that the closer the students felt they were to the teacher, the higher the learning motivation. They reported that students who possess trusting relationships with their teacher felt that the classroom was more informative as well. For example, if the teacher says learning a language is important, the students who trust the teacher may feel the same and this extrinsic motivation internalizes (Bao & Lam, 2008; Ryan & Connell, 1989). In the tertiary context, the teacher can show that he or she cares about the students by allowing student input in the decision-making process (Garcia & Pintrich, 1996). Finally, Conttia (2007) found learner motivation to increase while developing autonomous learning skills, and also found that social factors strongly influenced learners’ success. These conclusions point to the significance of the student-teacher relationships and social settings, as well as the importance of providing an autonomy-supportive environment to enhance intrinsic motivation.

2.4 Relatedness in the classroom

Ryan and Powelson (1991), in their publication titled “Autonomy and Relatedness as Fundamental to Motivation and Education,” argue that the needs for autonomy and relatedness strongly influence motivational orientations and learning outcomes. They define relatedness as “the emotional and personal bonds between individuals … [however] … more than mere connection. Relatedness refers to the experience of connecting with others in ways that conduce toward well-being and self-cohesion in all individuals involved” (Ryan & Powelson, 1991, p. 53). Moreover, Ryan and Powelson found that when teachers put effort in providing an autonomy-supportive classroom environment, students felt closer to the teacher. As mentioned above, satisfying this need for relatedness plays a pivotal role in the internalization of values in educational contexts. Providing empirical evidence for this claim, Furrer and Skinner (2003) found children’s motivation and academic achievement to be predicted by relatedness. At the higher educational level, Beachboard, Beachboard, Li and Adkinson (2011) found that an increased sense of relatedness along with higher order thinking assignments were “substantial predictors of educational outcomes relevant to literacy, critical thinking, and, especially, job preparation” (p. 853).

Roorda, Koomen, Split and Oort (2011) conducted a meta-analytic review to investigate the associations between affective qualities of student-teacher relationships, school engagement, and academic achievement. Their analysis of 99 studies revealed significant associations among relationships and school engagement, and relationships and academic achievement. Working within
the SDT framework, Reeve (2006) found students’ classroom engagement depended on the quality of a supportive classroom climate. He argues that nurturing student’s internal motivations by adopting an autonomy-supportive motivating style is the key to developing a high-quality student-teacher relationship. Bao and Lam (2008) found that when the need for relatedness was satisfied with children who did not have a choice of what to learn in a compulsory educational context, they perceived a sense of autonomy in their learning, which increased their learning motivation.

Likewise, Ando and Okada (2013) suggest that autonomy and relatedness have a reciprocal relationship. In other words, students perceived that autonomy-support is enhanced when teachers put effort into building trusting relationships, and when students feel they have a trusting relationship with their teacher, they feel their classroom is an autonomy-supportive environment. As illustrated in Figure 3, both autonomy and relatedness are important in the classroom to increase motivation and ultimately academic achievement (Ando & Okada, 2013). Skinner and Belmont (1993) also provided empirical evidence by investigating the connection between autonomy and relatedness with elementary school students. They found that students’ feelings of autonomy gradually increased in classrooms where teachers reported putting effort in building rapport.

![Diagram](image)

**Fig. 3. Effect of relatedness and autonomy support on motivation (Ando & Okada, 2013)**

### 2.5 Motivation, autonomy and relatedness in the EFL context

From an educational standpoint, SDT proposes that learning motivation is driven by intrinsic and extrinsic motivation (Deci & Ryan, 2000), and claims that extrinsic motivation undermines intrinsic motivation to learn. Research has also claimed that extrinsic motivation can be internalized when the needs of autonomy, competence and relatedness are satisfied (Goda, 2014; Neimic & Ryan, 2007). However, as pointed out above, in a classroom environment, relatedness may hold the key to enhancing learning motivation.

In recent literature on learning motivation in language learning, Dornyei (2009) proposes the *L2 motivational self system*. This theory is based on three decades of research in language education and has three components: (a) ideal L2 self; (b) ought-to L2 self; and (c) the L2 learning experience. The theory claims that learning motivation can be enhanced by (a) holding an ideal and ought-to self and (b) learning in a good L2 learning environment. Research in the EFL context has focused on the first two components in Japan (see Ryan, 2006; Yashima, 2010) and Asia (see Yang & Kim, 2011). For instance, Yashima (2010), in her research with young learners, notes that satisfying the need for competence is of key importance because, in the EFL context where students learn in school, it is hard to satisfy autonomy. She maintains that by providing students with these opportunities to gain confidence to learn English, extrinsic motivation internalizes towards more intrinsic forms of motivation.
However, research conducted on the third component, the L2 learning experience, is limited. Dornyei (2009) notes that the L2 learning experience is “the immediate learning environment and experience (e.g. the impact of the teacher, the curriculum, the peer group, and the experience of success)” (p. 29). In the Hungarian secondary and university EFL context, Csizer and Kormos (2009) report that the learning experience is strongly connected to effort towards learning. Studies such as this and others in Japan (see Taguchi, Magid, & Papi, 2009) focus on aspects of the L2 learning experience without directly investigating the influence of the student-teacher relationship. In the Japanese EFL context, Hiromori (2006) concludes that satisfying the need for competence and relatedness is key in enhancing intrinsic motivation.

Though not specific to SDT and relatedness, research in language learning has discussed the importance of the social environment for motivation (Ushioda, 2005) and autonomy (Dam, 1995). For instance, Williams and Burden (1997) discuss important factors in the classroom as being interactions with significant others (e.g. teachers and peers), and Crandall (1999) suggests peer support as a motivator for the “shy, insecure, or even uninterested student” (p. 234). In addition, though the study is limited with its participant size, Dornyei (2002) provided empirical evidence of the motivational impact of peers on motivation with learning tasks in his 44-student Hungarian class. He found that task motivation is co-constructed by the participants, suggesting the influence of peers on learning motivation. This is in line with Dam’s (1995) theory of learner autonomy in that learning is not only “individual and cognitive,” but also a “social phenomenon grounded in interaction and collaboration” (Little, 2012, p. 23). In the Japanese ELF context, Shinohara (2012) found a significant correlation between junior high school students that felt a strong relationship with their teacher and their positive preferences towards English learning.

Alm (2006) notes that EFL language learners have two communities they can relate to: (a) the community of the other learners in the classroom: and (b) the community of the speakers of the target language. He argues that the sense of relatedness is critical for learners’ task engagement. Using e-learning technology to satisfy the need for relatedness in a language learning course, he writes that his students achieved positive learning outcomes in terms of task completion, because the need for relatedness was satisfied. Most recent research within the SDT framework and in language learning found relatedness to be the strongest predictor of learning motivation (Akbari, 2015).

Fukuda et al. (2011) introduced a practical method of satisfying the need of relatedness through journal writing. They claimed that it not only enhanced learning motivation, but also promoted stronger student-teacher communication at secondary and tertiary levels. In their research, they described that at the end of every class students were given time to reflect on the lesson and write comments or questions about the lesson or anything in general to the teacher. The teacher would then give written feedback in the next class. Interestingly, some students mentioned that reading the teacher’s comments was the best part of the class. Their conclusions were similar to Urdan and Schoenfelder (2006) who examined the effects of student-teacher relationships stating that learning motivation emerges from interaction in the classroom. They concluded that classroom dialogue was the major factor in building an appropriate social context for learning.

In sum, relatedness is fundamental to motivation and education and learning goals and class climate depend on this affective need (Ryan & Powelson, 1991). Relatedness “is deeply associated with a student feeling that the teacher genuinely likes, respects, and values him or her” (Niemiec & Ryan, 2009, p. 139). SDT posits that relatedness facilitates internalization into more intrinsic forms of motivation. Students “tend to internalize and accept as their own the values and practices of those to whom they feel, or want to feel, connected, and from contexts in which they experience a sense of belonging” (Niemiec & Ryan, 2009, p. 139). Students who do not feel a strong relationship with their teacher “are more likely to move away from internalization and thus respond only to external contingencies and controls” (Niemiec & Ryan, 2009, p.139). Cornelius-White’s (2007) meta-analysis found that compared to other educational interventions, a stronger correlation existed between academic achievement and positive relationships, non-directivity, empathy, warmth, and encouraging creative thinking. Relatedness becomes key in the classroom for students to not only sense more autonomy, but also internalize their motivation to learn. In a language learning
classroom, relatedness becomes the fuel for language study and practice that is necessary to enhance proficiency. In the higher educational context, relatedness is potentially the fuel to continue learning even after a course has been completed.

3 Study

Our previous study (Fukuda et al., 2011), also in the SDT framework, suggested that GAS satisfied students’ need for autonomy and competence. However, it was speculated that the students’ need for relatedness was not satisfied. For the present study, GAS was restructured by (a) adding a class journal writing component as a mechanism to build stronger student-teacher relationships and (b) allotting more time for peer advising to strengthen peer relationships. For comparison purposes, we collected data not only from students taking the GAS course, but also from two other English courses with syllabi based on commercial textbooks. We discuss the influence the GAS course and the two other courses had on learning motivation based on SDT principles. The research questions (RQ) were as follows:

RQ1: Does the restructured GAS increase learning motivation compared to textbook-based syllabi?

RQ2: Does the restructured GAS satisfy the need for relatedness in the Japanese EFL context?

3.1 Participants and courses

Differences in language learning motivation and perceived autonomy were measured using three convenient samples. The samples were drawn from three required English courses taught at the authors’ institution. Face-to-face classes were held for 90 minutes and each class met once a week for 15 weeks. All classes were titled Basic English with every student enrolled in each course based on student ID number and assigned to the class by the administration. At the subject institution, each teacher in charge of a Basic English course is free to choose their own content, methodology, textbook and grading schemes. All participants were first year university students in their first semester from the same department, consisting of humanities and science majors.

Students in the GAS course (N = 45) had in-class peer advising sessions for at least 20 minutes each week in groups of four to five students. In the first and second phases of the GAS course, students were randomly assigned to a group based on where they were sitting that day. In the third phase of the course, students were assigned to groups based on learning goals. The teacher tried to create groups of students that had similar learning goals so that they could discuss their learning and advise each other on different learning resources, learning plans, learning motivation, and the self-assessment of their learning.

At the end of each class, students were asked to write their thoughts about (a) the class, (b) their current language learning, and (c) any questions in a class journal that was submitted to the teacher. The class was given five minutes at the end of each class to write their thoughts and given five minutes at the beginning of each class to read the teachers comments or ask any questions about the comment. The class journal was printed on a A4-sized sheet of paper (see Appendix 1). The students wrote in the language of their choice (i.e. English or Japanese). The teacher would then respond by writing comments or advice in English to each student. Writing these responses took about 45-60 minutes each week with the objective of providing learning advice and to enhance rapport.

The other two courses (Control 1 and Control 2) implemented a more teacher-centered approach following prescribed syllabi designed by Japanese commercial textbook publishers. The aim of the class for Control 1 was to increase reading skills, as set out in the syllabus. The syllabus for Control 2 stipulated that the class aim was to increase vocabulary. These textbooks had 15 units each with one unit to be completed each week. Both textbooks started with a warm-up listening activity and then had a vocabulary activity to build schema, before students worked on a reading passage. After the reading passage, students worked on reading comprehension exercises and
grammar or writing exercises. Students completed homework, such as reading, writing, and vocabulary activities in the textbooks, and in each class in the following week, all answers were checked in class, followed by teacher explanations. Both classes had a mid-term and a final examination based on textbook content (e.g. grammar and vocabulary knowledge), which contributed the most weight towards the final grade. The mid-term and final examinations for the GAS course were written essay study questions, in which students wrote about their learning goals and plans, learning experience in the course, and about learner autonomy.

All three courses were taught by different teachers. All three were Japanese teachers and each had more than 20 years of experience teaching at the institution. All three teachers were male. The teacher in charge of the GAS course studied in the field of intercultural communication and the two in our control groups were English literature experts.

The teacher of the GAS course made sure to conduct the course in a similar fashion as in the previous study (Fukuda et al., 2011). However, this time the teacher agreed to spend at least three 90-minute time periods a week in the self-access center on out-of-class student communication, as well as use the class journals every week to maintain detailed communication to foster stronger student-teacher relationship. The teacher also agreed to implement at least 20 minutes of peer advising in each class and gave five minutes at the beginning and the end of each class for the class journal activity. The two control groups did not use a class journal in their courses, nor did they conduct peer advising in the class. The teachers of the other two courses had offices on the same campus as the students and agreed to make themselves available to students during their office hours and whenever students made an appointment to meet them. Because all three teachers were full-time staff, time outside of class was voluntary and they were not reimbursed.

### 3.2 Data collection and analysis

Data for learning motivation were collected using the *Language Learning Orientation Scale* (LLOS), which is based on SDT principles, and developed and validated by Noels, Pelletier and Vallerand (2000, Appendix 2). The Japanese version of the LLOS used in this study was further validated by Honda and Sakyu (2004). It includes questions such as “I am studying English in order to get a more prestigious job later on” on a 5-point Likert scale. The LLOS includes seven subscales: amotivation, external regulation, introjected regulation, identified regulation, and three subscales for intrinsic motivation. Noels et al. (2000) report on a three-part taxonomy of intrinsic motivation proposed by Vallerand (1997). The three-part taxonomy consists of the following intrinsic motivators, which are experienced when a learning task is “self-initiated and challenging” (Noels et al., 2000, p. 38):

- **Knowledge**: the motivation to study to explore new ideas or develop knowledge
- **Accomplishment**: the motivation to study for the sensation of task mastery or goal achievement
- **Stimulation**: the motivation to study by task performance or mere appreciation, fun, or excitement

In the LLOS, each subscale consisted of three items to measure motivational orientations. We did not use one item from the introjected subscale, because it asked the question “To show myself that I am a good citizen because I can speak a second language.” We felt that this question did not apply to the Japanese EFL environment. Pretest surveys were administered on the first day of all three courses in the first 15 minutes of class. Internal consistency among constructs were tested using Cronbach’s Alpha. All data were calculated using the Statistical Package for Social Sciences (SPSS ver. 16.0J). Construct reliability analysis results show that all constructs were above the $\alpha = .60$ level (see Table 3). Though considered lenient in educational research, due to the low number of questions ($N = 20$), as proposed by Nishino (2005), we considered an alpha level of .60 to be acceptable for the present study. Furthermore, the LLOS pretest for all three groups showed no significant differences in our non-parametric Kruskal-Wallis test at the $p < .05$ level (see Table 4).
As mentioned above, Bao and Lam (2008) found that students’ perceived autonomy was higher when the need for relatedness was satisfied. Thus, for the present study, we measured perceived autonomy to examine whether the need for relatedness was satisfied in the courses. The perceived autonomy of the students was measured using the Learning Climate Questionnaire (LCQ), which is based on SDT principles. It was developed by Williams, Grow, Freedman, Ryan and Deci (1996). The LCQ was developed with an understanding that people flourish in autonomy-supportive environments, and versions have been created and administered in higher education, health care, the workplace, and sports. The LCQ can be downloaded from the SDT website (http://www.selfdeterminationtheory.org/). A version for the EFL context was developed for this study and piloted by the authors a year before this study in two required freshman English classes with 93 students. We achieved a reliability alpha level of $\alpha = .92$. The LCQ contains 15 questions, such as “I feel that my teacher provides me choices and options” on a 5-point Likert scale (see Appendix 3). The alpha level for the LCQ for this study was .98 (see Table 3).

Pre- and post-study LLOS and LCQ were administered to measure any changes in learner motivation and their perceived autonomy in the GAS and the two other English courses (Control 1 and Control 2). As in the previous study (Fukuda et al., 2011), we analyzed the data as ordinal data, because Likert-scale responses have “rank order” and “intervals between values cannot be presumed equal” (Jamieson, 2004, p. 1212). We also administered the Wilcoxon test, which is more powerful than the $t$-test for non-normal distributions (Knapp, 1990), such as the data we collected with Likert-scale survey responses. A $p$-value of .05 was set as the significance threshold for the present study. Finally, to triangulate the quantitative data, four students from the 3 courses (two from the GAS course, and one each from Control 1 and Control 2) volunteered as informants to discuss the data results. These students were the first to respond to an email sent out after all data

### Table 3. Pre-survey results of LLOS and LCQ reliability analysis (N = 110)

<table>
<thead>
<tr>
<th>Motivational Subscales</th>
<th>N of items</th>
<th>$\alpha$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amotivation</td>
<td>3</td>
<td>.91</td>
</tr>
<tr>
<td>External</td>
<td>3</td>
<td>.64</td>
</tr>
<tr>
<td>Introjected</td>
<td>2</td>
<td>.60</td>
</tr>
<tr>
<td>Identified</td>
<td>3</td>
<td>.88</td>
</tr>
<tr>
<td>Intrinsic Knowledge</td>
<td>3</td>
<td>.83</td>
</tr>
<tr>
<td>Intrinsic Accomplishment</td>
<td>3</td>
<td>.81</td>
</tr>
<tr>
<td>Intrinsic Stimulation</td>
<td>3</td>
<td>.89</td>
</tr>
<tr>
<td>LCQ</td>
<td>15</td>
<td>.98</td>
</tr>
</tbody>
</table>

### Table 4. Pre-survey results of LLOS Kruskal-Wallis Test (N = 115)

<table>
<thead>
<tr>
<th>Motivational Subscales</th>
<th>$X^2$</th>
<th>$p$</th>
<th>Mean Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>GAS</td>
</tr>
<tr>
<td>Amotivation</td>
<td>3.32</td>
<td>.19</td>
<td>58.62</td>
</tr>
<tr>
<td>External</td>
<td>2.34</td>
<td>.31</td>
<td>59.61</td>
</tr>
<tr>
<td>Introjected</td>
<td>.33</td>
<td>.85</td>
<td>61.78</td>
</tr>
<tr>
<td>Identified</td>
<td>2.52</td>
<td>.28</td>
<td>58.57</td>
</tr>
<tr>
<td>Intrinsic Knowledge</td>
<td>4.23</td>
<td>.12</td>
<td>57.24</td>
</tr>
<tr>
<td>Intrinsic Accomplishment</td>
<td>1.43</td>
<td>.49</td>
<td>58.44</td>
</tr>
<tr>
<td>Intrinsic Stimulation</td>
<td>.55</td>
<td>.76</td>
<td>61.06</td>
</tr>
</tbody>
</table>
had been collected and analyzed. The informants said that they were available, because they lived near the university. The discussion was held in a private room next to the university’s self-access center and was conducted in Japanese.

3.3 Results and discussion

The results of the data analysis show that amotivation had decreased significantly and intrinsic motivation had increased significantly (see Table 5) among students in the GAS course. In our post-survey within-group analysis of LLOS, we found that students in the GAS course had significant increases in the intrinsic motivators of Knowledge ($p < .05$) and Accomplishment ($p < .05$), but not Stimulation ($p > .05$), accompanied by a significant decrease in amotivation ($p < .05$). Results confirm that the restructured GAS increases learning motivation to explore new ideas or develop knowledge (Knowledge subscale) or study for the sensation of task mastery of goal achievement (Achievement subscale). However, more research needs to be conducted for learning motivation for the mere appreciation, fun, or excitement (Stimulation subscale) to make GAS more effective. In a compulsory educational context, relatedness has the potential to internalize intrinsic forms of motivation. These results suggest that the restructured GAS did satisfy the need for relatedness.

As we will discuss below, our student informants mentioned that factors of procrastination and negative emotions influenced their learning. Vallerand and Ratelle (2002) introduce three social factors as determinants of intrinsic motivation: situational factors, contextual factors, and global factors. The situational factor is a transient variable in which motivation comes from a specific activity at a specific time (e.g. receiving praise from the teacher). Contextual factors are recurrent variables which occur in a specific context, but not others, and which influences motivation (e.g. the teacher is a factor for the student in the school but not at home). Global factors are factors that influence motivation across several domains of a student’s life (e.g. best friends who do everything together from school to clubs and leisure time may influence each other’s motivation). Global factors that were not controlled for may have influenced the students, causing habits of procrastination and negative emotions towards study at a certain time conflicting with their learning goals and plans. These may have influenced the students’ motivation somehow and is subject to further research.

For Control 1 (the reading skills course), there was a significant increase in the intrinsic motivation of Accomplishment ($p < .05$). After discussion, the students from this course mentioned that finishing the whole course book cover-to-cover gave them a sense of achievement. For Control 2 with the aim of increasing vocabulary skills, there were no significant differences in any of the subscales. Although insignificant, Control 1 also had a noticeable decrease in amotivation, which, we suspect, is due to the significant increase in the subscale of Accomplishment. As Vallerand and Ratelle (2002) discuss, amotivated students feel helpless, begin to question the activity they are doing, and do not see learning as useful. This course (Control 1) may have enhanced perceived competence, which in turn increases motivation, because students were able to complete the text and pass the exams, which are both examples of positive feedback (Vallerand & Reid, 1984). However, this warrants further investigation as well. Also, research has shown that giving competence to lower level learners who usually have lower motivation to study can potentially increase motivation (Hiromori, 2003). Through our discussion, we found that only Control 1 completed their textbook, which may have influenced motivation, though this warrants further investigation.

To figure out why the subscale of Simulation had not increased significantly, we called on a group of four students at the end of the course for a discussion. In our discussion, one student from the GAS class mentioned that though students did gain motivation to study more, because their awareness of learner autonomy had increased, he noted that many students had a habit of procrastination. Interestingly, another student from the GAS class also talked about wanting to learn more about how to stop procrastinating as well as to overcome negative feelings towards learning. Thus, we speculate that students needed more time and activities to understand the content of the GAS course (i.e. planning and monitoring) by adding these components to GAS in the future. Finally, to
answer our first research question, results confirm that the restructured GAS increased learning motivation to some extent compared to text-book based courses. The restructured GAS also decreased amotivation significantly.

Table 5. Pre- and post-test results of the language learning orientations scale

<table>
<thead>
<tr>
<th></th>
<th>GAS (N = 45)</th>
<th>Control 1 (N = 32)</th>
<th>Control 2 (N = 33)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amotivation</td>
<td>1.97</td>
<td>1.82</td>
<td>2.21</td>
</tr>
<tr>
<td>External Regulation</td>
<td>2.69</td>
<td>2.78</td>
<td>2.72</td>
</tr>
<tr>
<td>Introjected Regulation</td>
<td>2.60</td>
<td>2.49</td>
<td>2.44</td>
</tr>
<tr>
<td>Identified Regulation</td>
<td>3.60</td>
<td>3.83</td>
<td>3.33</td>
</tr>
<tr>
<td>Intrinsic Knowledge</td>
<td>3.24</td>
<td>3.52</td>
<td>3.08</td>
</tr>
<tr>
<td>Intrinsic Accomplishment</td>
<td>2.75</td>
<td>3.14*</td>
<td>2.67</td>
</tr>
<tr>
<td>Intrinsic Simulation</td>
<td>3.17</td>
<td>3.14</td>
<td>3.14</td>
</tr>
</tbody>
</table>

*p < .05

The GAS course was perceived as more autonomy-supportive than the two control groups. The descriptive statistics for the LCQ showed (max score 6.0) that perceived autonomy in the GAS course (M = 5.24) was much higher than in the two control groups (M = 3.09, M = 2.89). We also tested to examine whether there were any associations between perceived autonomy and each of the seven motivational subscales. Results from the analysis of the LCQ data reveal that the course type (i.e. GAS or textbook-based course) was strongly associated with perceived autonomy (p < .00, r = .73, eta2 = .72) and slightly associated to amotivation subscale (p < .05, r = .07, eta2 = .07). These results suggest that an autonomy-supportive class climate potentially decreases amotivation, and that the need for relatedness was satisfied in the GAS course. To answer our second research question, the restructured GAS did satisfy the need for relatedness in the Japanese EFL context.

Results from our analysis and the discussion above suggest that GAS, with the added components of class journals and peer advising, potentially satisfies the need for relatedness, decreases amotivation, and increases intrinsic motivation. The results are directional, but this study has increased our understanding of GAS and has provided insight into how it could be further modified. For instance, as one student informant mentioned, incorporating components to help students overcome procrastination and negative feelings towards learning may prove beneficial and increase intrinsic motivation (e.g. Stimulation subscale)

As with all research in learning motivation and learner autonomy, ours is not without its limitations. One limitation of our study – and perhaps all studies that measure motivation – was its cross-sectional methodology of investigation using a pre- and post-survey. Furthermore, research in autonomy still needs to be more longitudinal. If possible, we would like to visit the students in this study before they graduate to evaluate how the course has influenced them by measuring their language learning motivation and learning autonomy skills. Another limitation of the study is the variable of the teacher in each course, which will be difficult to measure though it influences other variables greatly. All three teachers were liked by all students with similar comments in the end-of-semester student evaluations. As a blind reviewer of this article noted, some teachers can motivate a class just by their personality, and thus, this variable must not be overlooked. Subsequent studies can conduct research in courses involving the same teacher. We would also like to see GAS implemented and studied in other tertiary institutions and educational levels and settings.
4 Conclusion

This study set out to further pursue research proposed by Fukuda et al. (2011). The previous study found that the GAS had the potential to enhance students’ learning motivation. However, their previous research suggested that students’ need for relatedness has to be satisfied to enhance their learning motivation significantly. Thus, in this study, we compared a restructured version of GAS, which emphasized the student-teacher relationship and peer relationships. This was realised through the addition of a class journal and in-class peer advising. Pre- and post-study survey results from students taking the restructured GAS course suggest that relatedness is essential in enhancing students’ language learning motivation. When compared to other textbook-based courses, the addition of techniques to satisfy the need of relatedness significantly increased students’ intrinsic motivation while decreasing amotivation.

However, these results do call for more research in EFL to investigate the potential of satisfying the basic psychological need for relatedness, as well as to find practical classroom techniques to enhance student-teacher and peer relationships. Fukuda & Yoshida (2012) found that motivation towards out-of-class study was connected to strong student-teacher relationships. Thus, a deeper understanding of how student-teacher relationships and communication can be strengthened at different levels of education should be conducted, addressing questions such as how teachers advise students inside and outside of class or how effective peer advising can be conducted in the classroom (see Ludwig & Mynard, 2012, for a discussion on advising in EFL). As noted by our informants, students would like more advice on how to overcome procrastination and negative feelings of motivation. Classroom practice and advice to students as discussed here has potential to better GAS, to enhance intrinsic motivation, study time and, ultimately, language proficiency.

The results of this study also suggest the necessity for teachers to learn how to provide students with more autonomy-supportive learning environments for more active student engagement. To do so from an SDT perspective, teachers could (a) nurture students’ internal motivation (e.g. by providing activities that are not only fun, but challenging as well), (b) use more informational and non-controlling language, (c) communicate the value of uninteresting activities, and (d) acknowledge and accept students’ expressions of negative feelings (Reeve, Deci, & Ryan, 2004). As discussed above, it is common in the Japanese EFL classroom at the tertiary level for teachers to have more than 50 students whom they meet only once a week. Thus, as in the case of GAS, written communication and in-class peer advising may be useful techniques to implement to create a more autonomy-supportive environment for students. In addition, the Learning Climate Questionnaire could be used to ask students directly if they feel comfortable and safe in the classroom or if it has satisfied their need for relatedness. This quick 15-item questionnaire takes no more than 10 minutes and may help the teacher understand each student and the classroom atmosphere better. After a better understanding of the students’ feelings and the learning climate, instead of competitive activities, more cooperative and collaborative activities could be included. These activities should emphasize trust, cooperation, and communication. An easy start would be to conduct an activity in which students can get to know each other and the teacher better.

In sum, more research needs to be conducted on GAS and the area of relatedness in EFL and language learning. This study has revealed the potential of GAS to enhance students’ intrinsic motivation to learn in the EFL context. It goes without saying that learning motivation is necessary for students on their journey to become successful language learners who can continue their studies autonomously.

References


Appendices

Appendix 1

Class journal

Attendance & Feedback Sheet

1. Please write your feedbacks/comments/questions to your teacher.

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Comments/Questions</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>/</td>
<td></td>
<td></td>
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<tr>
<td>2</td>
<td>/</td>
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<td>3</td>
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<td>4</td>
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<td>5</td>
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<td>10</td>
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<td>11</td>
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<td>12</td>
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<td>13</td>
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<tr>
<td>14</td>
<td>/</td>
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<td></td>
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<tr>
<td>15</td>
<td>/</td>
<td></td>
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</tr>
</tbody>
</table>

Name

Photo Here

Appendix 2

Language Learning Orientations Scale (adapted from Noels et al., 2000)

Amotivation Subscale
1. I cannot come to see why I study a second language, and frankly, I don’t give a damn.
2. Honestly, I don’t know, I truly have the impression of wasting my time in studying a second language.
3. I don’t know; I can’t come to understand what I am doing studying a second language.

External Regulation Subscale
1. Because I have the impression that it is expected of me.
2. In order to get a more prestigious job later on.
3. In order to have a better salary later on.

Introjected Regulation Subscale
1. To show myself that I am a good citizen because I can speak a second language.
2. Because I would feel ashamed if I couldn’t speak to my friends from the second language community in their native tongue.
3. Because I would feel guilty if I didn’t know a second language.

Identified Regulation Subscale
1. Because I choose to be the kind of person who can speak a second language.
2. Because I think it is good for my personal development.
3. Because I choose to be the kind of person who can speak a second language.

Intrinsic Motivation—Knowledge Subscale
1. For the pleasure that I experience in knowing more about the literature of the second language group.
2. For the satisfied feeling I get in finding out new things.
3. Because I enjoy the feeling of acquiring knowledge about the second language community and their way of life.

Intrinsic Motivation—Accomplishment Subscale
1. For the pleasure I experience when surpassing myself in my second language studies.
2. For the enjoyment I experience when I grasp a difficult construct in the second language.
3. For the satisfaction I feel when I am in the process of accomplishing difficult exercises in the second language.

Intrinsic Motivation—Stimulation Subscale
1. For the “high” I feel when hearing foreign languages spoken.
2. For the “high” feeling that I experience while speaking in the second language.
3. For the pleasure I get from hearing the second language spoken by native second language speakers.