The Effects of a Teacher’s Formative Feedback on the Self-Regulated Learning of Lower-Proficiency Japanese University Learners of English: A Qualitative Data Analysis Using TEM

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Abstract

The present study examined the effects of a teacher’s formative feedback on the self-regulated learning (SRL) of lower-proficiency university learners in a Japanese university. Formative feedback was given to the students on a designated reading task every two weeks over a semester. The descriptions that students wrote about their learning on a reflection sheet were the data resource for the present study. To closely observe the gradual changes in the learners’ SRL, two qualitative analysis methods were employed: coding and the Trajectory Equifinality Model (TEM), which is a relatively new analysis method for qualitative research. The findings revealed that the teacher’s formative feedback influenced the learners’ SRL. Overall, this feedback first impacted their cognitive, metacognitive, and behavioral SRL strategies and then their self-efficacy. In addition, it was suggested that the participants’ SRL trajectories were affected by their initial orientation to an English class and the social environment.

1. Background

Less proficient Japanese English learners attending universities seem to be poor at self-regulated learning (SRL), in which they monitor and control their learning to improve their learning quality, judging from their descriptions on a reflection sheet for their lessons. Reflection is one of the three phases of SRL. However, students’ written accounts are usually short and only express their impressions of a lesson, which suggests that they do not engage in their learning iteratively and responsibly. Takeuchi (2003) notes that successful Japanese English learners tend to set a goal and plan well for their learning, whereas unsuccessful learners do not. In addition, the latter often do not find out how and what to study for a number of years (Tsuchiya, 2006). Researchers on foreign language education have introduced the ideas of SRL, but few studies have investigated what modes of instruction work for learners who do not or cannot engage in
Examining the effects of a teacher’s formative feedback, which is considered important in leading and modifying SRL in such learners, is necessary. In contrast to summative feedback, which is given post-test or end of the term, formative feedback is continuously and verbally offered throughout the learning process. Thus, formative feedback is presumed to work on a learner’s behaviors and mental disposition cyclically and gradually. A new qualitative research method called the Trajectory Equifinality Model (TEM) (Yasuda & Sato, 2012) is adopted in the present study to capture such cyclical and gradual changes in learners. TEM is a methodological framework that closely perceives personal growth over time within historical, social, and cultural contexts.

1.1 Formative feedback

Formative feedback is given to a learner based on a formative assessment. Shute (2008) defined formative feedback as “information communicated to the learner that is intended to modify his or her thinking or behavior for the purpose of improving learning (p. 154).” Formative assessment includes three viewpoints: 1) where the learner is right now, 2) where the learner is going, and 3) how to get there (Black & Wiliam, 2009; Sadler, 1989). Some researchers (Black & Wiliam, 2009; Butler & Winnie, 1995; Nicol & Macfarlane-Dick, 2005) emphasize that formative assessment and feedback are crucial to enhancing students’ SRL. In addition, formative feedback is considered especially favorable for novices and struggling students in that it can effectively reduce cognitive load (Shute, 2008). Therefore, we can expect to see its effect on learners in this study.

1.2 Formative feedback in foreign language education

Research on formative assessment and feedback for overall education began in the 1990s. However, in foreign language education, as Ketabi & Ketabi (2014) and Wicking (2016) reported, term test-based summative assessment methods remain dominant, and few studies have examined the effect of formative assessment and feedback on foreign language learning and teaching, including in Japan. The keywords ‘formative assessment’ and ‘feedback’ are seldom found in the major academic journals in Japan (ARELE, JACET, JALT), although we find words such as ‘corrective feedback’ and ‘peer feedback’ used for speaking or writing activities. Tsuchiya (2017) discovered that university students recognize that they have received less formative feedback when learning English from teachers before and after entering university.

1.3 Self-regulated learning and formative feedback

Zimmerman (1989) defined students’ SRL as follows: “In general, students can be described as self-regulated to the degree that they are metacognitively, motivationally, and behaviorally active participants in their own learning process (p. 329).” In the SRL framework,
metacognition means a learner’s monitoring and controlling while learning, motivation is holding self-efficacy or feeling competence, and behavior refers to regulating social and physical environments to optimize his/her learning. Zimmerman (2012) proposed that to self-regulate appropriately, learners should undergo a cyclical process—a forethought phase, a performance phase, and a self-reflection phase—(Figure 1), and should utilize self-regulated learning strategies (SRLS) for metacognition, motivation, and behaviors in each phase (Zimmerman, 1989).

**Figure 1.** Self-regulatory phases and processes (Zimmerman, 2012: 279)

Nicol and Macfarlane-Dick (2005) reviewed considerable prior research showing that external feedback had a positive impact on a learner’s SRL, identified seven effective feedback practices, and presented a conceptual model of self-regulated learning and formative feedback

**Figure 2.** A conceptual model of self-regulated learning and feedback principles (Nicol & Macfarlane-Dick, 2005: 5; modified by the author)
(Figure 2). This model recognizes that there are limits to learners’ SRL; a teacher offers a learning task and determines assessment standards, and therefore, the model fits the purpose of the present paper investigating how formative feedback from a teacher in a class of English as a foreign language (EFL) can contribute to learners’ SRL.

1.4 Research questions

Few empirical studies have examined educational interventions to improve learners’ SLR. However, it has been reported that even university students have difficulties in properly monitoring and controlling their learning (Ambrose et al., 2010; Butler & Winnie, 1995). This study’s participating students might be categorized as such learners. SRL can make a difference in a learner’s performance (Pintrich & De Groot, 1994; Munezane, 2015; Nitta & Baba, 2015); thus, it is worthwhile to determine an effective mode of instruction that can contribute to developing learners’ SRL, especially for those who fail to regulate their learning. In the present study, the educational treatment comprises the provision of formative assessment and feedback repeatedly over a semester. The research questions are as follows:

RQ1: How does a teacher’s regular formative feedback influence learners’ SRL in English learning?
RQ2: What SRL trajectory patterns are there among the participants?

2. Methods

2.1 Setting

The data were collected from second-year Japanese university students in a one semester (15 weeks) EFL class taught by the author. The twenty-eight students in this class were mainly engaged in reading and listening tasks in a textbook. The present project was conducted using English reading materials from the textbook as a part of the class. The students were told about the project on the first lesson day, and all of them agreed to participate. All of them received the almost same amount and quality of feedback from the teacher.

2.2 Participants

For data collection for this study, I randomly selected four female and three male students by lot from an original group of 13 who had availability after class to answer questions about their entries in a reflection sheet. They were given the following pseudonym: Natsu, Nana, Chizu, Mari, Kou, Tai, and Yuu. A profile building questionnaire administered on the first day revealed that all seven students considered studying English difficult and held motivation only for completing credits for graduation; in addition, their low confidence and motivation resulted in their avoidance of public English tests, such as the TOEIC and STEP, during the previous five years. All students
in the class took a placement test (CASEC: Computerized Assessment System for English Communication) at the beginning of the school year. The participants’ average score was 372.3 (SD: 29.2; conversion scores in TOEIC: 295).

2.3 Data collection
To avoid losing data quality and accuracy regarding learners’ experiences and feelings, in the present study, learners’ descriptions in Japanese on their reflection sheet written during the last ten minutes of each lesson, were employed (except for the 11th and 14th lessons due to school events). Additionally, I asked the participants a few questions on their descriptions and added the information obtained. All text data were typed and divided into units of information content, regarding SRLS presented in Figure 1 (Table 1).

<table>
<thead>
<tr>
<th>Phases &amp; SRLS areas</th>
<th>Example units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Forethought Phase</strong></td>
<td></td>
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<tr>
<td>Task analysis (Goal setting)</td>
<td>Kou: I’ll read aloud next time while paying attention to English intonation. (5th lesson)</td>
</tr>
<tr>
<td><strong>Performance Phase</strong></td>
<td></td>
</tr>
<tr>
<td>Self-control (Task strategies)</td>
<td>Chizu: I created original marks and wrote them above the sentences so that I would be aware of pronunciation. (7th lesson)</td>
</tr>
<tr>
<td><strong>Self-Reflection Phase</strong></td>
<td></td>
</tr>
<tr>
<td>Self-judgment (Causal attribution)</td>
<td>Mari: I felt bored in the lesson because I didn’t do enough homework. (4th lesson)</td>
</tr>
</tbody>
</table>

2.4 Tasks
To develop their reading and listening skills, students were asked to practice reading aloud two English reading materials in each unit repeatedly until they could read them aloud like a native speaker recorded on the CD. Five criteria devised by Miyasako (2002) were presented so that students could understand the keys to improving their oral reading skills: pronunciation, intonation, pause, comprehension, and speed. Every week, students wrote about a series of practice sessions from the week inside and outside of the class on a reflection sheet.

2.5 Frequency and contents of formative feedback
I explained to the class on the first lesson day that I would assess their reading aloud one by one every two weeks (3rd, 6th, 9th, 12th, and 15th lessons) on a five-point scale using the five criteria above and provide them with feedback to help them practice during the subsequent two weeks. To identify differences in the students’ description between when they received formative feedback and when they did not, feedback was given to them from the third to the ninth lessons. On the twelfth and fifteenth lessons, they received only the teacher’s evaluation of their reading aloud.
Based on Black and Wiliam’s (2009) three factors in formative assessment and on Nicol and Macfarlane-Dick’s (2005) seven principles, I spoke with each student about the following items as formative feedback: 1) confirmation of his/her final goal, 2) where s/he is now in relation to the final goal, 3) how s/he practiced and studied during the previous two weeks, 4) what I thought s/he should introduce into his/her practice, and 5) proximal goals for the next assessment. The excerpt of the instructor-student dialogue recorded after Tai’s performance in the 6th lesson are below (all interview extracts and entries on a reflection sheet were translated from Japanese):

I: So, you’re aiming at getting four points for each evaluation criterion in the final presentation, right? But you were already able to answer to my questions on the content almost perfectly today and also in the last time, which I think shows that you’ve been preparing well and have learned enough. Why not raise your final goal for this criterion to five?

Tai: I’m happy to hear that, but I’m afraid I can’t get five points in the final one.

I: I’m sure you can do it if you keep studying and practicing as you’re doing now.

Tai: Okay, I will think about it.

I: All right. Then, on your reading aloud, you did read faster than the native speaker on the CD.

Tai: Thank you. I practiced a lot.

I: I think so, but due to reading aloud too fast, I didn’t find any intonation and pauses. When you come to be careful to them, it’ll be easier to understand the content in a listening activity.

Tai: Yeah, I didn’t pay attention to such things because I didn’t know how to practice them.

I: I see. Did you listen to the CD?

Tai: Not much… Just once.

I: I think you should first listen to it many times, then write in marks and signs for pauses and intonation so that you can be careful of them while practicing reading aloud.

Tai: Okay. I’ll read aloud while paying attention to all the pauses, pronunciation, and intonation in the next presentation.

I: It’s good, but starting with so many goals at once might be tough. Why don’t you first try to figure out how to read with pauses?

Tai: Ah… it might be better for me. Okay, I’ll start with that.

I endeavored to listen to the students carefully and speak with them in ways that would enhance their motivation and confidence. For example, when they attributed their poor presentation to their ability, I had them reflect on how they had prepared instead to help them disassociate current shortcomings with a belief in an inherent incapability. The time devoted to each student was approximately three minutes. During this time, the other students would engage in solving textbook comprehension questions and practicing reading aloud to prepare for the next presentation.
2.6 Analysis

Two methods of analysis were adopted for the present study. First, I coded each unit of information content to each SRL phase to analyze how a student came to engage in SRL cyclically. For example, if an information unit was about goal setting, it was coded as a strategy in the forethought phrase. The results are tabulated in Table 4 to present them visually. Second, the qualitative analysis method TEM was employed to capture students’ trajectories of SRL processes and the influences of a teacher’s formative feedback. An overall TEM chart for the participants was used to understand their SRL process.

(1) TEM

Different people think and behave differently throughout their lives; thus, there are various life trajectories. TEM, however, considers that there is a point (the equifinality point, EFP) at which people arrive at a similar state or situation under the influence of historical, social, and cultural constraints, such as becoming best friends, entering high school, getting married. TEM examines the trajectories people take to reach the same EFP. The time to reach an EFP can vary from several minutes to years depending on the nature of the EFP.

TEM defines two concepts to describe the socialization of a person. Social direction (SD) refers to events and experiences that the participants do not want to have but nonetheless have because of social influences. Social guidance (SG) refers to events and experiences that help and support a person. An event that leads to another event or becomes a trigger leading to other paths is denoted as a BFP and is generally related to SG. Obligatory passage point (OPP) refers to events that most participants go through because of social influences. Therefore, SD is likely to influence an OPP. In addition, TEM analysis requires the notion of a polarized equifinality point (P-EFP) as well as an EFP when a researcher begins to analyze data so that s/he can have an overview of data without having a fixed belief and thus remain open to something that s/he assumed did not exist.

TEM shows different output qualities based on the number of participants (Table 2). The present study analyzed data from the seven participants to find their trajectory patterns.

<table>
<thead>
<tr>
<th>Number of participants</th>
<th>Advantage</th>
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<tbody>
<tr>
<td>1</td>
<td>To be able to search a person’s trajectory deeply</td>
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<tr>
<td>4 ± 1</td>
<td>To be able to describe the varieties of experience</td>
</tr>
<tr>
<td>9 ± 2</td>
<td>To be able to grasp the patterns of a trajectory</td>
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</tbody>
</table>

(2) Framework for TEM analysis

The EFP for the present study was fixed as follows: Students come to engage in a designated classroom task while using SRLS responsibly and cyclically. The number of units of information content from a participant’s reflection sheets was 35 on average; that is, almost 300
units were gathered in total from the seven participants. First, I aligned individual experiences from left to right chronologically. Next, similar experiences among the participants were allocated in the same row, and a label for the grouped units was established (Figure 3). This process was performed in TEM, in which the calendar time when a participant experienced an event is not as important as the chronological order of experiences.

![Figure 3](image)

Figure 3. Allocating similar experiences in the same row

Summarizing similar experiences yielded 44 classified labels. Considering the characteristics of each label and adopting the viewpoint of SRLS, each of the 44 labels was closely categorized into BFP, OPP, SG, or SD with advice from a TEM expert. The framework for TEM analysis for the present study is shown in Table 3.

<table>
<thead>
<tr>
<th>Framework</th>
<th>Labels for the present study</th>
</tr>
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<tbody>
<tr>
<td>EFP (Equifinality Point)</td>
<td>Students come to engage in a designated classroom task while using SRLS responsibly and cyclically.</td>
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<tr>
<td>P-EFP (Polarized Equifinality Point)</td>
<td>Opposite of EFP</td>
</tr>
<tr>
<td>BFP (Bifurcation Point)</td>
<td>25 BFPs</td>
</tr>
<tr>
<td>OPP (Obligatory Passage Point)</td>
<td>4 OPPs</td>
</tr>
<tr>
<td>SG (Social Guidance)</td>
<td>8 SGs</td>
</tr>
<tr>
<td>SD (Social Direction)</td>
<td>7 SDs</td>
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</tbody>
</table>

*Details are seen in the TEM chart.

3. Result and Discussion

3.1 Results of coding SRLS use by phase

As seen in Table 4, at first, the number of information units on SRLS was small overall. Most participants wrote only one or two short sentences in Japanese on their reflection sheets. They wrote fleeting thoughts and unserious plans even though they had received explanations of how to write on the sheet and how the reading-aloud assessment would take place.

*Nana: I studied English after a two-month summer vacation. So hard. (1st lesson)*

*Kou: I can’t read English aloud fast. (2nd lesson)*
In addition, we can see that the participants' ways of learning were initially relatively one or two sided; that is, they did not engage in learning cyclically. For example, Nana, Mari, and Kou have information units only in the performance or/and self-reflection phases for the second lesson. This means that they did not set any proximal goals for the next lesson and made no preparations for it.

Table 4. Coding SRLS information units during the three SRL phases

<table>
<thead>
<tr>
<th>Lesson</th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
<th>6th</th>
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<th>11th</th>
<th>12th</th>
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<th>14th</th>
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<tbody>
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<td>Natsu</td>
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<td>Mari</td>
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<td>Kou</td>
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<td>Nana</td>
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<td>Tai</td>
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<td>Chizu</td>
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<td>Yuu</td>
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After the participants had undergone their first reading-aloud assessment and received formative feedback, in the third lesson, the number of information units began to increase, and each phase included information units. The participants also gradually began to refer to proximal goals and to take steps to achieve their goals; thus, they were now able to move their learning forward cyclically even after the teacher stopped to offer feedback in the twelfth lesson. The number of words a participant used on a reflection sheet exceeded 300 in the last lesson, whereas that number was only approximately 30 at the beginning of the lessons. The details of their SRL evolution will be discussed in the following section using a TEM chart. In Figures 4, 5, and 6, the
arrow direction represents ups and downs in the participants’ affects and behaviors; TEM can express a person’s mental and behavioral changes dynamically.

3.2 Interpretation of the TEM

Concerning the interpretation of the TEM, I followed the procedures described in Yasuda and Sato (2012): dividing the period and discussion using the labels of BFP, OPP, SG, and SD. Considering the contents of labels placed close by and from the viewpoint of the SRL process, the irreversible flow to the EFP was divided into four stages, and each stage was named to express the summary of events occurring in the phase. The first stage is “Passive attitudes to the class and learning English,” the second is “Beginning to experience the SRL process,” the third is “Expanding views of monitoring for SRL,” and the fourth is “Autonomous engagement with SRL.”

(1) The 1st stage: Passive attitude to the class and learning English

Due to the curriculum of the department to which the participants belong (SD), they registered in an obligatory English class (OPP), where they found they would have to read aloud and have regular assessments in class. They had a less positive attitude to attending class (OPP) and wrote cursory thoughts on a weekly reflection sheet. Short interviews with the participants revealed that the assumption was that they would have boring lessons or that they could somehow receive credit even without work hard (SD: fixed negative ideas about an English class) influenced their unmotivated descriptions. Nana, Natsu, and Tai came to write expectations of improving their English proficiency on a reflection sheet and began to practice reading aloud on their own (BFP) due to the teacher’s repeated explanations about the lesson’s objective, while the other participants continued to write vague plans and wishes on their reflection sheets (OPP).

(2) The 2nd stage: Beginning to experience the SRL process

When they had their first reading-aloud assessment and received formative feedback from the teacher (SG) individually, all the participants except Chizu understood the lesson objective, thought back to their problems with reading aloud, and set goals for their next assessment based on the teacher's feedback (BFP). This BFP included an element of OPP because the participants’ goals in this stage were partially set after they received advice from the teacher.

Tai: I realized first that I murmured flatly English sentences, which was not helpful for improving English listening and speaking skills. I will practice while listening to the CD as the teacher advised me. (3rd lesson)

Most participants came to attend a class with positive attitudes (BFP) from that point on, introduced new study methods, and studied slightly harder than before (BFP). In this way, the participants sometimes took notice of their poor proficiency in learning English (BFP) and felt
discouraged, but most of them tried to keep studying due to the positive influence of their friends’ attitudes (SG). This process suggests that these participants began to regulate their learning metacognitively, behaviorally, and then motivationally. Accordingly, they came to realize that they were able to do what they had not been able to at first (BFP).

However, for Mari, realizing her poor proficiency triggered a loss of motivation, and she did not begin to study as much as she had thought (BFP). Exhaustion from her club activities (SD) may be another reason for her negative state. Chizu continued to write vague plans and wishes on her reflection sheet (OPP). She said that she became confused because the class was different from ones where she had learned passively (SG: fixed idea of an English class and learning methods).

*Chizu:* *Reading English aloud is difficult. I can’t read it aloud well. (4th lesson)*

(3) The 3rd stage: Expanding views of monitoring for SRL

Around the third stage, the participants began to expand their perspectives to monitor and control their learning. They came to reflect not only on their problems but also on improvements based on feedback from a teacher and set their next goal and a learning schedule (BFP), which is considered a notable change, as it seldom occurred in the previous two stages. Recognizing their competence might have led them to write more positive descriptions. Setting a learning schedule, which is a remarkable sign of SRL (Pintrich, 2004), led them to increase the amount of study time outside class (BFP). Thus, they realized they could read aloud and better understand the designated English materials (BFP).

*Mari:* *The teacher correctly pointed out the parts I didn’t prepare for enough. I felt awkward, but it made me think that I should’ve studied more. I practiced hard to finish reading aloud within the designated time, and I was able to do it. I was happy. (6th lesson)*

At the second reading-aloud assessment and formative feedback from the teacher (SG), Chizu finally grasped the lesson objective and began to follow the same learning trajectory as her peers.

(4) The 4th stage: Autonomous engagement with SRL

By their third assessment (9th lesson), the participants had come to express their problems and improvements by themselves before receiving the teacher’s feedback at the assessment (BFP). They were likely to feel much more self-efficacy when hearing a teacher’s comments (BFP). At this point, the role of the teacher’s feedback seemed to shift mainly from telling them how to regulate their learning behaviorally to offering them assurance of their improvement, which would allow them to experience self-efficacy. They set goals for the next assessment and increased their study time (BFP). Kou, Nana, and Tai monitored and regulated their learning more closely on their own (BFP), and felt a strong self-efficacy in their English learning (BFP), judging by their words and behavior. It means that they metacognitively, motivationally, and behaviorally engaged
in their own learning process, which is identical to the definition of SRL (Zimmerman, 1989). Therefore, at this point in time, these students appeared to have reached the EFP.

Tai: I found out the types of words that are difficult for me to pronounce, so I think I shouldn’t practice reading whole the sentences many times but focus on the weak points. I’m sure that I will be able to read aloud and understand English far better than before.

The SRL progress of Chizu, Yuu, and Mari was disrupted again because of individual SD. However, Chizu asked a teacher for advice after receiving an unexpected score at the assessment (BFP) and tried to regulate her learning. Asking for advice as needed is one of the SRLS (Pintrich, 2004). Mari prioritized club activities, but she soon got back to work on the plan she had made. She self-regulated her motivation. Next, Mari and Natsu felt self-efficacy after obtaining good results (BFP) from their reading-aloud assessment (SG). Thus, they appeared to have reached the EFP.

Natsu: For today’s check, I introduced a new learning way that I hadn’t done so far. It was to pay attention to pauses when I read English sentences aloud. It worked well. By pausing appropriately, my intonation and speed greatly improved. I received good comments from the teacher, and I’m so happy. (12th lesson)

In contrast, Yuu cut corners in studying English because of difficult assignments in other classes (SD). Nevertheless, he was overconfident about the assessment (SD). As a result, he was awkward in reading aloud at the assessment (BFP), and he regretted his lack of preparation (BFP). Subsequently, however, he was motivated to obtain higher scores on the final assessment. Both Chizu and Yuu reflected on their learning by themselves and set goals for the next assessment (BFP). Then, they traced trajectories similar to those the other five participants had taken. The two were considered to have finally reached the EFP as well. Thus, the TEM chart visually presents differences in the time when each participant reached the EFP.

As overall tendencies, whether they can understand the lesson objective and set proximal goals or not was a key to igniting SRL and the ensuing cognitive, metacognitive, and behavioral changes, which led to motivational and affective changes, in participants. In addition, participants’ orientation at the beginning of a new class can influence their SRL trajectories. In this study, the TEM revealed that there were two main types of trajectories; some gradually advanced their SRL, while others had difficulties doing so. Formative feedback from a teacher contributed to helping them achieve the EFP. The TEM chart shows that the more the participants received formative feedback, the more they engaged in SRL. This conclusion is also confirmed by the participants’ descriptions of the last lesson.

Natsu: Compared to my reading aloud in the first check, I think it was surprisingly better. Now, I can almost read aloud as the CD’s native speaker does, which helps me catch English words better. The teacher’s frequent advice encouraged me to go for it.

Yuu: Through this class, I found out that I can do it if I try. Thanks to the teacher, I first
Figure 4. TEM of the SRL process (1)

Figure 5. TEM of the SRL process (2)
learned how to solve problems in learning English and I could maintain my motivation.

Nana: I think that the class where students can have information on improvements and feedback from a teacher is very good.

As an indication of their changes in learning English, in the CASEC test, which they took after the final lesson, all the participants except Chizu received better scores on the test. The average score was 468.4 (SD: 42.0; TOEIC: 370). While not falling, Chizu’s score was almost identical to that on her initial test. Regarding the class, 21 out of 28 students scored higher compared to their original placement test, the average score of 388.9 (SD: 29.6) rose to 414.1 (SD: 63.3)

4. Conclusion

The present study reveals that lower-proficiency Japanese university learners of English can develop their SRL in a designated task by receiving regular formative feedback from a teacher. At first, the participants were urged to set a proximal goal and introduce new learning methods for the next assessment by the teacher; however, once they realized that it worked well, they gradually began to monitor their learning on their own and to consider how to study, set goals, and increase their study time. In other words, they began to engage in learning cyclically. On the other hand, the length of time and the trajectories toward autonomous self-regulated learning varied by
individual. Whereas four participants (Nana, Natsu, Tai, and Kou) traced relatively stable paths to the state, the other three (Chizu, Mari, Yuu) experienced ups and downs due to social directions that influenced their motivation and attitude. The social directions include learners’ negative orientation to an English class at the outset of a new class, club activities, and assignments for major subjects in a participant’s department. Obtaining such information in the very first lesson can allow a teacher to think about what instructions and how much support is appropriate for a learner’s SRL.

The present study did not capture specific advice and feedback that had an important impact on learners’ attitudes and motivation. Further research should therefore formulate clear content and ways in which a teacher’s formative feedback can support a learner’s SRL.

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