

# The Language Learning Tree: A Tool for Supporting Collaborative Reflection

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Reflection and metacognition in second language learning, particularly in the context of learner development, are important and yet challenging to introduce successfully in the classroom. Aiming to address this challenge, the authors identified two tools to support students as they begin practicing reflection: a collaborative reflection protocol developed by Degeling and Prilla (2011) for use in the workplace and adapted by the authors for use in the classroom, and *The Strategy Tree* (Abe, Yoshimuta, and Davies, 2014)—a visual metaphor representing a learner's evaluation of their language abilities, experiences, and attitudes. In this paper, the authors describe a classroom activity using the *The Language Learning Tree*, a modified version of *The Strategy Tree*, to aid learners in beginning meaningful reflective practice. They also discuss how classroom teachers can support improved metacognition via collaborative reflection in a first-year nursing university setting (Porter) and a first-year high school setting (Hilton). Learner artifacts from the authors' respective contexts are presented and analyzed. The authors conclude by engaging in a reflective dialogue that explores their collaborative journey as researchers, as well as understandings that emerged from both their learners and their mutual work. Foremost among these is the recognition that, while no single activity will transform a learner's metacognitive capabilities, their experiences with the collaborative reflection protocol and *The Language Learning Tree* provide several indications that they are effective catalysts for reflective practice.

第二言語学習における内省とメタ認知は、特に学習者ディベロップメントを考える上では重要であり、教室内での導入を試みるべき価値がある。これを実現すべく、筆者らは学習者の内省をサポートするためのツールとして以下の2つのものを用いた。まず一つ目は学習者が内省の練習をするため、職場での利用を目的として Degeling and Prilla (2011)によって作られた協働的内省プロトコルを教室場面に応用し利用した。もう一つはAbe, Yoshimuta, and Davies's (2014)が提唱した ストラテジーツリーで、これは言語能力や経験、態度についての学習者自身による評価を図式化するものである。本稿では、学習者の初期段階の意味あるリフレクティブ・プラクティスを支援するストラテジーツリーの修正版であるランゲージ ラーニング ツリーを使った教室活動を記述する。そして、看護学校の1年生 (Porter)と高校の1年生 (Hilton)のクラスにおいて実施した協働的な内省活動を通して、教師がいかにメタ認知能力の育成をサポートすることができるのかについて議論する。それぞれの調査校で得られた学習者の成果物を分析した結果、内省的な対話に従事することで、教師である筆者らは研究者としての協働的な道のりを切り開くと同時に、学習者と彼らの相互作用から理解が生まれることが明らかになった。また、この中で最も重要なのは、単独での活動は学習者のメタ認知能力を変化させない一方で、協働的内省プロトコルやランゲージ ラーニング ツリーを通じた経験はリフレクティブ・プラクティス効果的に誘発することが示された。

## Keywords

reflection, metacognition, collaborative reflection, peer-/self-assessment, scaffolding learner assessment

## キーワード

内省、メタ認知、協働的内省、ピア/自己評価、学習者評価のスキヤホールディング

**A**ny teacher who has used reflective activities with learners understands how challenging it can be. Using a simple prompt or two, teachers expect learners to be able to describe their efforts in detail, relate new insights to previous learning, and examine attitudes about learning. Welch (1999), writing about reflection in service learning, describes a “clumsy” approach to reflection which fails to engage learners and results in blank stares and shallow written reflections. This can be true with diaries as well, where students may only provide a general narrative of what they did and comment on how hard they worked or what they liked (Little, 2001). Additionally, reflection can seem contrived when it is part

of graded coursework, especially when it requires some sort of confession or fails to meet a teacher's expectation in terms of depth or quality. The problem may be that reflection is ill-defined and therefore difficult to characterize and teach (Jay & Johnson, 2002), so why should teachers bother including reflective activities in a course curriculum? In the domain of second language acquisition, reflection is considered by many to be an essential skill for language learners. Benson (2011) has provided an overview of reflection and its relationship to language learner autonomy. He explains how reflection on language itself, the learning process, and one's existing beliefs and practices has been promoted within the field as a way to support learner autonomy. Little (2004) included learner reflection as one of three pedagogical principles governing the development of autonomy in language learning, stressing that learners must be able to "think about their learning both at a macro level (for example, reviewing what has been achieved in a school year) and at a micro level (for example, trying to work out why a particular learning activity was or was not successful)" (p. 22). Ridley (1997) identified four interrelated areas that can make up the content of classroom learners' reflections:

- i) the target language, its structures and rules, ii) the long-term process of their language learning, both past experiences and expectations for the future; iii) themselves as language learners, and how they measure up to the demands of the course; and iv) the various tasks, activities, or longer-term projects which they undertake (p. 6).

This focus on the learning process often highlights being able to diagnose one's needs, setting one's own learning objectives, choosing one's learning resources and strategies, and evaluating one's learning—skills synonymous with practicing metacognition.

Metacognition refers to the concept of thinking about one's thoughts (Hacker, 1998). As originally described by Flavell (1979), it refers to both "one's own knowledge concerning one's own cognitive process and products or anything associated with them" and "the active monitoring and consequent regulation and orchestration of these processes in relation to the cognitive objects or data on which they bear, usually in the service of some concrete goal or objective" (p. 232). The object of metacognition can be "what one knows (i.e., metacognitive knowledge), what one is currently doing (i.e., metacognitive skill), and one's current cognitive or affective state (i.e., metacognitive experience)" (Hacker, 1998, p. 3). A recent review of research on metacognition highlights that "metacognition improves with both age and appropriate instruction, with substantial empirical evidence supporting the notion that learners can be taught to reflect on their own thinking" (Lai, 2011). For this reason, it is important for teachers to find ways to effectively use reflection activities in their courses. Lin (2001) identified two basic approaches to supporting metacognition in the classroom: strategy training and the creation of a supportive social environment where learners aren't afraid to struggle, fail, or question.

## Group Reflection

The learner's social context has a pronounced effect on metacognition and reflection, and the use of collaborative and cooperative learning methods can help to create a supportive social environment. Consider the example of a group discussion. Bandura (1977) suggests that greater interpersonal interaction can improve reflection by enhancing motivation and increasing engagement towards the activity. We see this when one learner is inspired by a peer's contribution to join the discussion, or rethink a position. When this learner connects that classmate's experience to her own it is illustrative of social context and interaction shaping self-concept, as "knowledge about the self-as-learner is usually developed using social modeling provided by other people" (Lin 2001, p. 27). This may lead to new insights about her learning experience, demonstrating that collaborative and cooperative learning methods sup-

port learners' metacognitive development (Lai 2011). Little describes his principle of learner reflection in terms of social interaction, explaining that it is "implemented interactively: the individual learner's capacity to evaluate his or her learning grows out of the group's ongoing discussion of the learning process" (2004, p. 22). But how is a teacher to orchestrate a collaborative reflection activity?

Degeling and Prilla (2011) have developed tools to support collaborative reflection for the informal learning of skills in the workplace. Within their context, collaborative reflection is a technique for thinking about mutual experiences and the common meaning that participants find in collective work. They have found that successful collaborative reflection demands an ability to articulate understanding of personal experiences, link those experiences and perspectives to those of others, and reflect together on differences in individual experiences. The result of this is skill development through social practice. They describe three tasks requiring support for collaborative reflection to be successful: articulation, scaffolding, and synergizing. First, articulation calls for the use of formal or informal text, such as stories, notes, or even annotations on another document, to help trigger reflection during the reflection session. In the classroom, this could be extended to any learning artifact that the learner wants to share with the group. Next, scaffolding is a structure imposed on the reflective discussion to guide it and the participants. Finally, synergizing describes the process of connecting insights gained from collaborative reflection to outcomes (Degeling & Prilla, 2011, pp. 3-4). Degeling and Prilla recommend providing support to facilitate and maintain a sustained shared context and move the reflection forward. We believe that the approach they have developed may translate well to the context of language learning classrooms.

## Objectives

Our project has two objectives: first, to design a classroom activity for learners to gain experience with meaningful reflective practice, and second, to improve our understanding of how we, as classroom teachers, can support improved metacognition in our contexts. To achieve our first objective, we designed an activity for collaborative reflection on language learning following the tasks described by Degeling and Prilla. Our second objective was achieved through the process of regular teleconferencing and correspondence while designing materials and writing this account. The remainder of this paper is divided into five sections. In the first and second sections, we introduce our contexts and present the three stages of the collaborative reflection activity. In the third section, we share some artifacts and responses from learners, as well as our observations of learners engaged in the activity, in order to provide a representative impression of the activity from the learner's perspective. Then, in the fourth section, we reflect separately on both the activity and this project, followed by a commentary on each other's reflection. In the final section of the paper, we offer an assessment of the activity and recommendations for its adaptation by other educators. We hope this account may act as a helpful roadmap for other language educators looking to explore reflection and introduce it to their learners.

## Our Contexts

### *Scott*

I am an assistant language teacher on the Japan Exchange and Teaching (JET) Programme, an international cultural exchange program operated by the Japanese government. I team-teach approximately 500 high school students enrolled at two public high schools in a small city in western Japan. I see most learners once in two weeks. Class size ranges from 16 to 40, and I

team teach with 10 different Japanese teachers of English. Our syllabus follows a Ministry of Education–approved textbook, and the lessons I teach are generally supplemental to that text. My lessons focus on a target language ability and key expressions that support that ability. Learners engage in a culminating project at the end of each term beginning with a conversation test in the first term, an essay in the second, and an original speech contest in the final third term.

In my previous teaching position at a K–8 public Montessori school in California, learner metacognition, application of inquiry–based strategies, and regular reflection had been given institution–wide importance. In my work in Japan, after determining that my desire to replicate these goals was supported by the Japanese English teachers I work with, I began working to design an introduction to reflection. It was my hope that by engaging learners in reflective practice they could gain a deeper metacognitive awareness of themselves as learners. I hoped this would lead them to develop better understanding of the learning process and greater control of their own learning.

## **Mathew**

I currently teach around 220 first- and second-year Japanese university students majoring in nursing in southern Japan. My classes are made up of 50–60 learners of varying ability, and meet once a week for 90 minutes over a 15-week semester. The learners are required to take just three semesters of English, finishing required English courses at the end of the first semester of their second year, just as they experience their first clinical training. The three required courses follow a situational syllabus based on oral interactions with patients. These situations are expressed through “can-do” statements that are shared with the learners. Each semester consists of 3–4 assessment tasks (e.g., “conducting a physical assessment on a patient”) targeting one or more can-do statements (e.g., “I can describe what I am going to do to a patient using simple words spoken slowly without looking at anything”).

I incorporate reflective activities into these three semesters. For example, learners record themselves completing the assessment tasks and upload their videos to Google Classroom so that they can be shared and self- or peer-evaluated and reflected upon. Learners also complete a mid-term and end-of-semester reflection in which they evaluate their ability to accomplish the can-do statements that were practiced in the tasks and reflect on their overall performance in class. My goal is to help my learners see that they have a role in managing their language learning to prepare them for continued learning once they enter the workforce and experience caring for patients who lack Japanese skills, a growing concern as the number of foreign tourists and short- and long-term residents in Japan continues to rise.

## **The Activity**

In the following section we will introduce the activity we designed to support collaborative reflection. In the first stage, the articulation stage, learners prepared an artifact to support personal reflection on their English learning experiences. In the second stage, the scaffolding stage, learners participated in a group reflection session guided by a worksheet comprised of four tasks. In the final stage, the synergy stage, learners identified a goal and created a learning plan in collaboration with their peers, based on insights from the first two stages.

### ***Stage 1: Articulating Content for Reflection Using The Language Learning Tree***

As described by Degeling and Prilla (2011), articulation is a means of triggering the reflective process that is supported by an artifact, and we believed that an activity called *The Lan-*

guage Learning Tree could serve as a suitable artifact for this purpose. *The Language Learning Tree* is based on *The Strategy Tree* (Yoshimuta, Davies, & Abe, 2015), an activity designed to be used by teachers and language learning advisors to help their learners “see the whole picture of language learning, raise their awareness of learning strategies, and consequently develop self-regulation to proceed with their learning autonomously” (Abe, Yoshimuta, & Davies, 2014, p. 278). Whereas elements of *The Strategy Tree* and its ecosystem represent different categories of learning strategies taken from Rebecca Oxford’s Strategic Self-Regulated Model (2011), *The Language Tree* has been adapted to emphasize the metacognitive knowledge and skills encountered in the self-directed learning process (Wenden, 1998).

In *The Language Learning Tree* activity the four skills (speaking, writing, listening, and reading) and three systems (grammar, vocabulary, and pronunciation) of language are represented as the leaves and trunk, respectively, of the tree. The tree’s growth is supported by its roots and sources of nutrients such as water, fertilizer, and the sun. Here, the roots represent the specific affective factors of motivation, confidence, interest, and activeness (or initiative). Water and fertilizer represent learning resources and strategies used by the learner, and the sun represents the learner’s language goals. This results in a metaphor representing the learner’s current language ability as a living, changing tree. This representation of language ability as a tree creates a simple, yet powerful model learners can apply to their own language learning experiences as they work to improve their foreign language abilities. The model is accessible to learners via the metaphor because they know water (resources) and fertilizer (strategies) and sunlight (goals) help trees grow stronger and taller, just as their corollaries in the metaphor help language ability flourish.

A model of *The Language Learning Tree* can be found in Figure 1. To determine the shape and size of their trees, as well as other elements of the drawing, learners complete an awareness-raising survey with a mix of Likert-style and open-ended questions, which can be found in Appendix A.

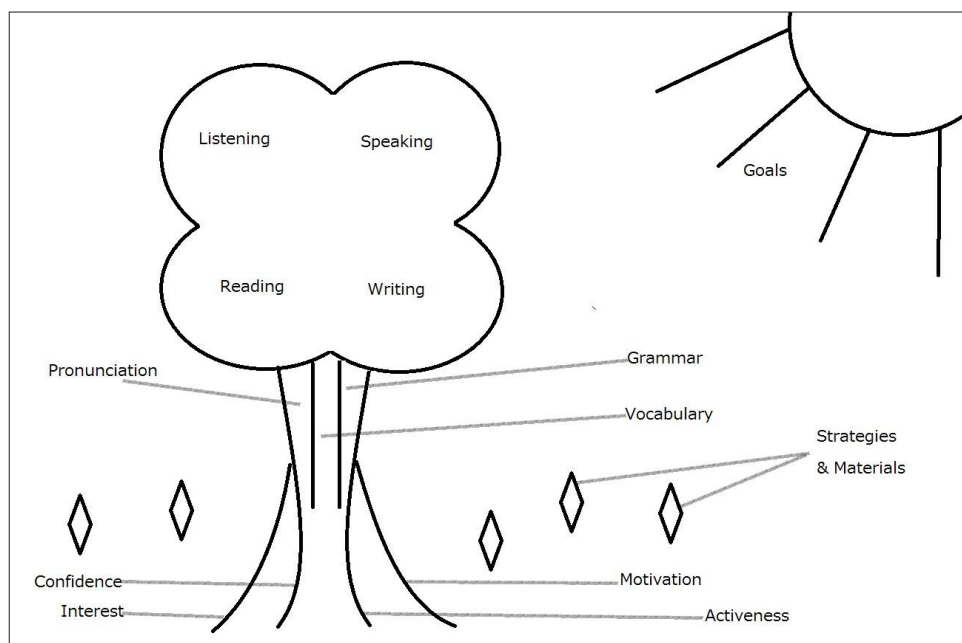


Figure 1. The Language Learning Tree.

Our sequence of activities begins by introducing learners to *The Language Learning Tree*. There are two goals that should be accomplished at the beginning of this stage. First, learn-

ers should understand that the tree is a metaphor for their current level of language ability. Second, they should understand that the size of the different parts of the tree are relative to each other, not to an external standard. In other words, the tree is a tool for comparing your language skills and knowledge to each other, not to the skills and knowledge of other individuals. The resulting personalized drawings make it easy for learners to articulate their English learning experiences to others.

### ***Stage 2: Scaffolding With the Collaborative Reflection Worksheet***

The visual representation of the self-as-learner provided by the language learning trees make them particularly well suited to sharing with others, and that is what learners will use them for in stage two. In Degeling and Prilla's (2011) model, scaffolding provides a common context and direction for reflection. Scaffolding can also help learners take on different roles during the reflection and draw their attention to rich data to reflect upon as a group.

With this in mind, we designed a four-task worksheet (see Appendix B) to guide learners through a discussion about their trees. In task 1, the worksheet directs groups of 3-4 learners to compare their trees and find similarities and differences. This is intended to provide learners with a common context, and lead them to insights about themselves as learners in relation to their peers. In tasks 2a-b, learners are directed to discuss the parts of their trees that stood out for being particularly developed or undeveloped, focusing on the underlying reasons for these assessments based on their language learning experiences. Task 2c asks learners to share the goal that they most want to achieve and the reasons for selecting that goal. This prompt provides an opportunity for learners to discover they have similar goals or already have experience pursuing similar goals. The final task, 2d, requires learners to share learning strategies and resources that they have found to be effective. Together, tasks 2c and 2d set the stage for a content-rich discussion that can help learners in the final stage of the activity where they will identify a goal and create a learning plan.

The collaborative reflection was designed to support learners in sharing their language learning experiences with a community of peers pursuing the same overall goal—improved English language proficiency. In doing so, learners find a point of reference for themselves as learners by listening to the experiences of their peers. They also are exposed to a variety of strategies and resources used by peers, as well as their peers' attitudes to language learning. These personal aspects of individual learners' experience rarely find their way into standard classroom activities. Throughout these steps, learners take on a variety of roles, from advisor to neophyte, as they reflect on the value of their groups' diverse experience as learners of English. During these conversations, learners were expected to note the content of their discussions. There was also a highlighted box where learners wrote down the goal they chose and effective learning strategies and/or resources introduced during the discussion.

### ***Stage 3: Setting Goals and Planning Language Study***

During the first two stages, learners should have gained insight about themselves and language learning through creating their individual trees and working through the collaborative reflection with their peers. The third stage of this activity is aimed at linking those insights to the learners' desired outcomes and identifying appropriate actions suggested by the reflective process, which Degeling and Prilla call synergizing mechanisms. As Degeling and Prilla explain, "Learning by collaborative reflection may then occur when an individual links her knowledge to the experience of others or when a group combines different viewpoints stemming from its members' experience and reflects on them collaboratively" (Degeling & Prilla, 2012, p. 135). Synergy is supported by the last question on the reflection worksheet in stage

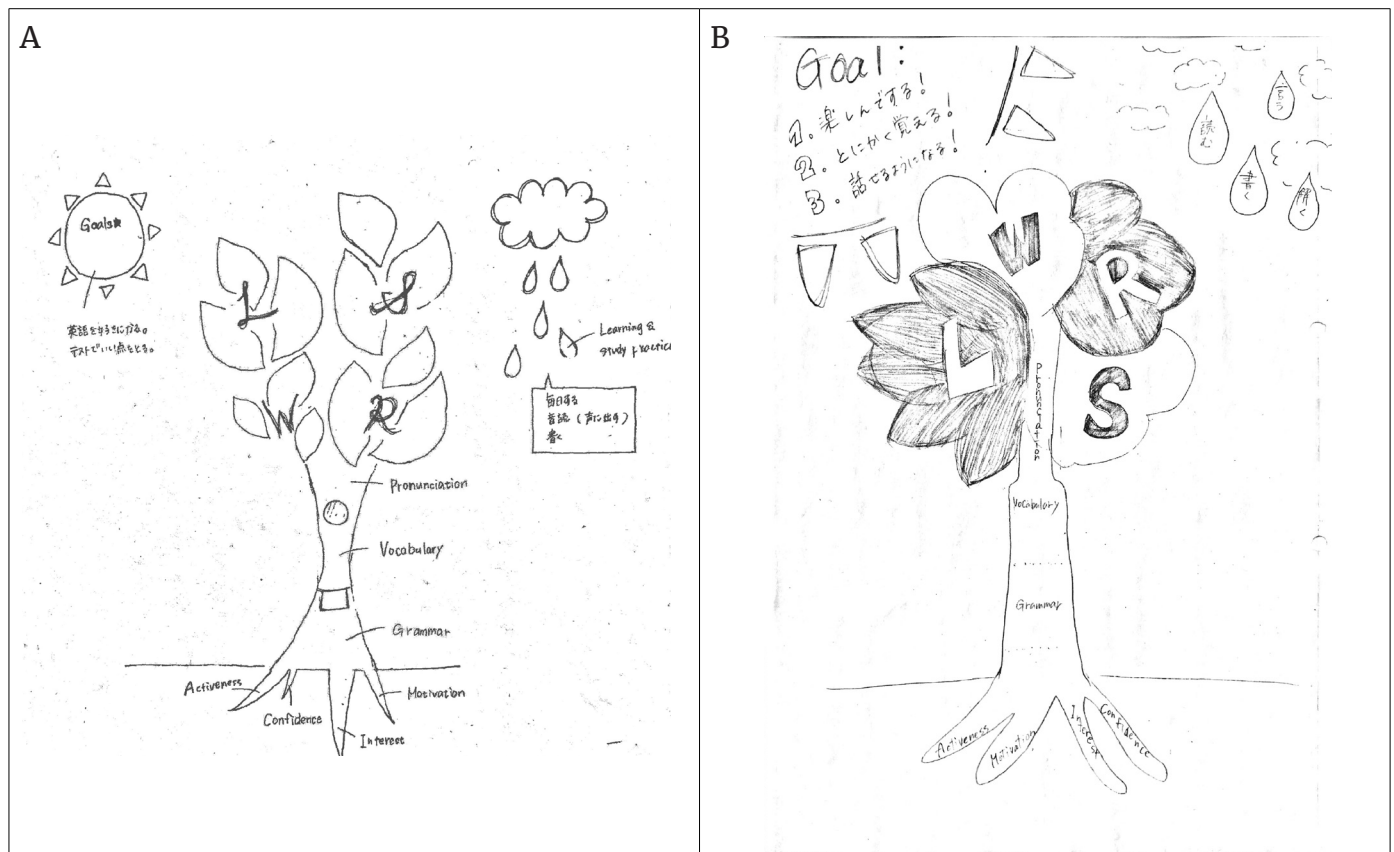
two, which asks learners to set a goal and create a learning plan for achieving that goal by the end of the school year. Then, groups discuss each learner’s goal and peers give advice about how to achieve the goal.

## The Learners

At the conclusion of stage 3, learners completed a reflection assessment survey about the experience of making their trees and participating in the collaborative reflection. This survey can be found in Appendix C. Their responses revealed some interesting points about how they viewed the value of making the language trees and the discussions that followed. In the following section, we present a few representative samples of our learners’ trees and summarize learners’ responses to the activity.

### Stage 1: Learners’ Trees

We carried out this activity with over 300 learners and examined the trees that they produced. The articulation artifacts produced in stage 1 showed a wide variety of learner engagement with the metaphor of language ability as a tree whose growth is supported by water, soil, and sunlight. In Figure 2, the ways in which learners interpreted the activity and their general enthusiasm for the project of creating their own language learning trees is evident. Figure 2 shows four examples of learners’ trees. It is notable that the learners interpreted the activity in distinct ways and also that the project of creating their own language learning trees generated a great deal of enthusiasm. In looking at these samples, we hope to demonstrate the images learners have of themselves as English language learners, the diversity of those images, and the power of the tree as a tool for articulation and self-assessment.



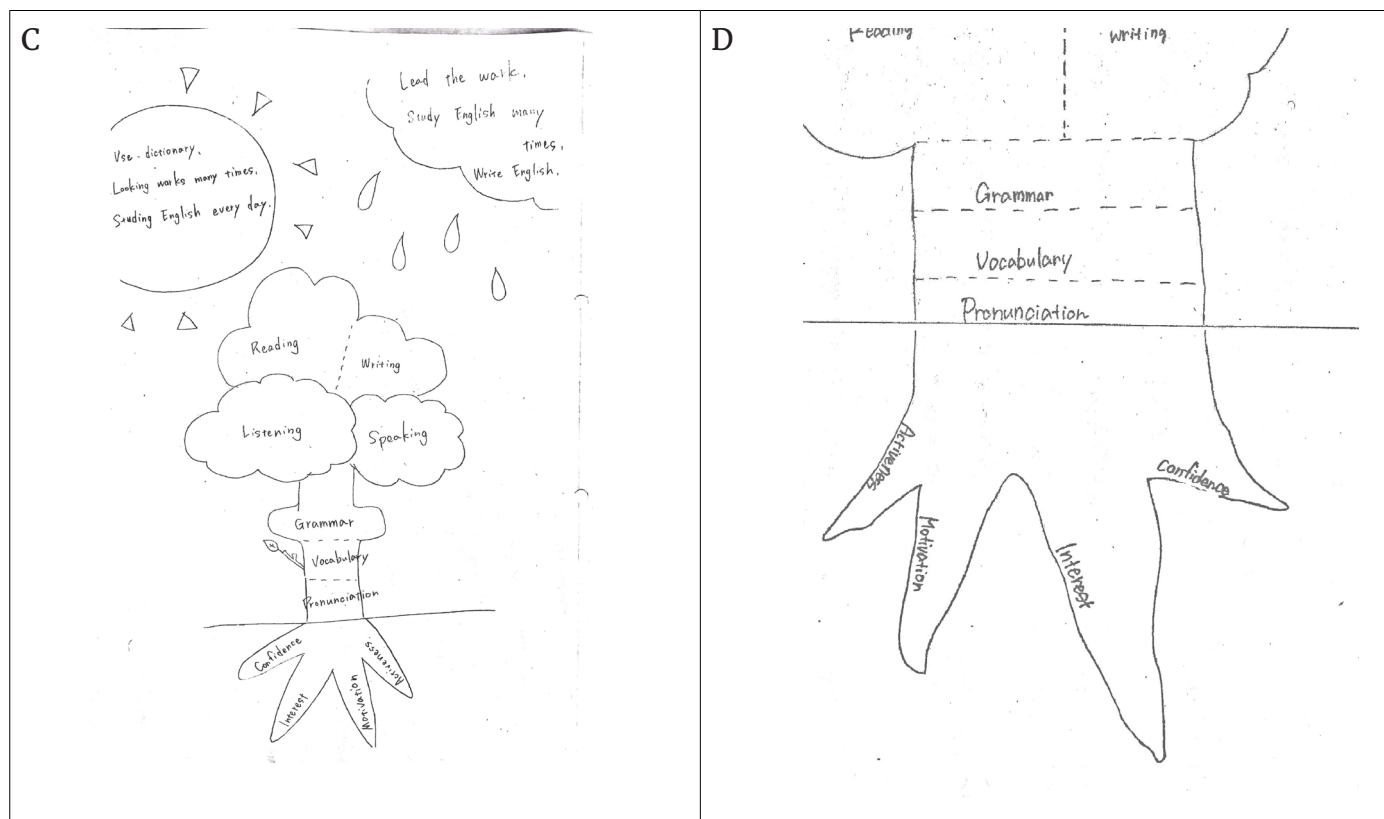


Figure 2. A Representative Sample of Learners' Language Learning Trees.

The trees show that the learners were successful in using the metaphor to represent how they perceive their L2 knowledge, abilities, and attitudes. Looking at Figure 2, you can see that there are clear differences in the relative size of the foliage (representing ability in the four language skills). Tree D clearly shows reading as the largest, and therefore strongest in the eyes of its author, while speaking is the smallest (weakest). In contrast to this is Tree A, in which speaking and reading are nearly equal in size while writing is clearly the smallest. These variations continue as we move down the tree to the trunk, representing language knowledge. Here we can see in Trees B and D that the learners feel weakest in pronunciation, while Tree A shows vocabulary as the slimmest portion of the trunk. These areas of learners' L2 learning are often assessed in other ways, which allows instructors to compare the learners' self assessments with more traditional metrics. However, the socio-affective components that are represented by the roots are less readily measured by standard assessments, which makes them of particular interest.

The socio-affective components of the tree—motivation, interest, confidence, and active-ness (initiative)—are presented as the foundation of learners' language study that supports the growth of knowledge and skill. Though learners are likely aware of these aspects, the role, value, and influence of socio-affective factors on learning as represented by the tree, makes their foundational importance explicit. In looking at this portion of the trees in our sample set, A and D both clearly differentiate between the different socio-affective components of their trees, with both trees indicating a strong interest (longer, deeper, broader root) and comparative lack of confidence (shorter, more shallow, narrower root). This type of difference is less clear in trees B and C, which could indicate less confidence from their creators about their self assessment of these factors, but could also be the result of a different stylistic approach or because those learners didn't feel there was a significant difference between these factors for them.

A common theme that emerges from looking at the learner responses to the survey is that



making the tree was an act of self-discovery for most learners. Learner comments often express new understanding of their own language learning capabilities, needs, and desires. The new perspective offered by these realizations appears to be one that learners are positive about, expressing optimism about their increased understanding and motivation to take advantage of what they have learned moving forward. Many note that, though the information in the tree came from them, the way the tree provided a framework for organizing this information allowed them to understand, at a glance, insights about themselves as learners.

### Stage 2: Scaffolding With the Collaborative Reflection Worksheet

Using the trees in Figure 2 and the prompts from the scaffolding worksheet, we will describe an idealized conversation based on notes taken while observing learners engaged in the activity.

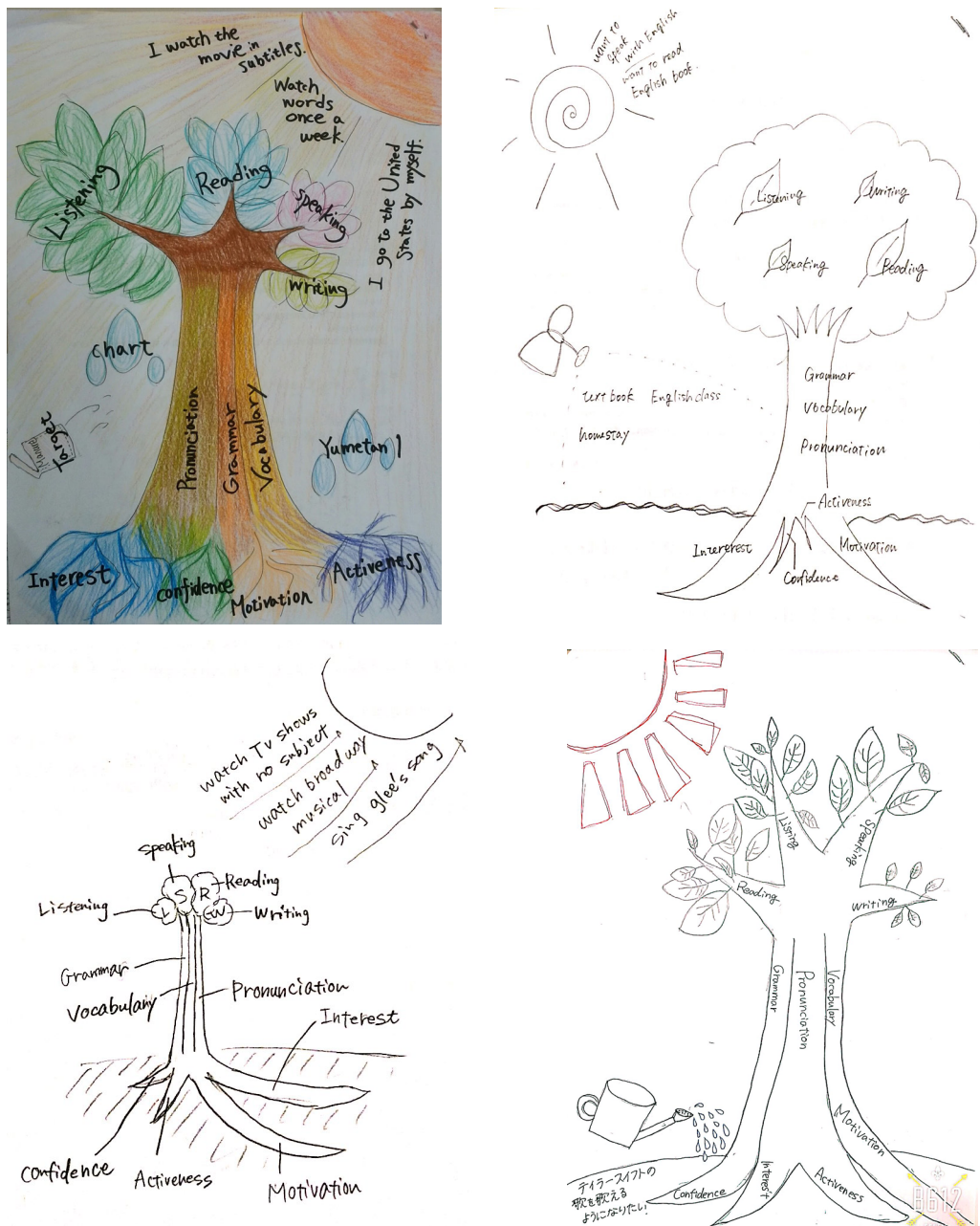


Figure 2. Language Learning Trees for a Group Discussion

First, the learners look for their similarities and differences. Examining the canopies of each other's trees, the learners realize they all believe they have poor writing ability, but are strong at reading. C says she feels speaking and reading are her strongest skills, whereas A, B, and D say their listening skills are strongest. D wonders out loud why everyone is so different. Looking at the roots, our four learners notice that they all lack confidence in their English, but they are all quite interested and motivated to learn English. A and D declare that they are fairly active in their English language study and give some examples of their study habits. The group then talk about their goals, with C and D both talking about how they want to be able to sing in English and how much they like Taylor Swift. A talks about how much she wants to go to the United States, and B shares her experience homestayng with a family in Illinois.

Next, learners spend 10 minutes talking about the parts of their trees that stood out for being particularly undeveloped or developed, focusing on the underlying reasons from their language learning experiences. C starts off complaining about how she can't catch the lyrics in songs despite her love of English music. Prompted by this, A and D talk about what they have done to improve their listening ability. A starts off explaining how she watches TV shows with the closed captioning turned on so she can see what's being said. D talks about how she looks up lyrics using Google and finds videos with embedded lyrics to help her learn the song and listen for the lyrics. Although the final step is to talk about effective strategies and inspiring goals, in many discussions, one learner's goal was tied to a weakness, and, as that learner spoke about that weakness/goal, peers responded by sharing effective strategies that were tied to their strengths.

Looking at the survey responses relating directly to the scaffolded collaborative reflection, it is clear that learners benefited in several distinct ways. First, they gained a broader perspective on how to study L2 by reflecting on their peers' approaches. Many learners characterized the experience of talking about their trees as providing them with new ideas about how to study and new information about study resources. Second, they became part of an explicitly recognized community of learners, discovering how their classmates were facing the challenges of learning a foreign language and imagining ways to support each other. One common sentiment was that their relative strengths and weaknesses could complement each other, and that when they faced a common challenge it would be easier to overcome it together. Finally, they also noted several changes to their socio-affective perception of English as a subject. These were most commonly related to motivation, with many learners expressing renewed desire to tackle the challenges of learning another language. There were also a number of learners who felt that the collaborative reflection had given them a chance to have their struggles and worries validated, which helped them feel relieved and find empathy.

### ***Stage 3: Signs of Learner Synergy***

In the final stage, learners reported on their goals and learning plans. Learners' goals could be described as general or specific. General goals addressed skills, systems, and socio-affective factors, such as speaking better, improving vocabulary, or having more confidence. Specific goals identified a function or task that learners wanted to achieve, such as being able to give directions in English. Learning plans consisted of lists of strategies, which were either specifically connected to a skill, system, or socio-affective factor, or generally related to study. Specific strategies that were frequently reported include writing a certain number of English sentences per day or studying a certain number of new words per week. General strategies included using a dictionary or creating a daily study habit. Survey responses showed some evidence that the collaborative reflection played a role in this final stage. For

example, some learners indicated that they were able to clarify their goals as a result of the discussion or were interested in using a strategy introduced during the reflection.

Based on our learners' artifacts and their responses to our survey, as well as our observations of the learners engaged in the reflective activity, it appears to us that the basic structure of this activity is effective in providing meaningful reflective experience to learners, that *The Language Learning Tree* is an effective tool for helping learners examine and express their conception of themselves as language learners, and that scaffolded group discussions provide learners with a valuable opportunity to develop the socio-affective elements of the self-as-learner. In the next section, we offer our individual reflections on the activity and our collaboration followed by responses to each other's reflections.

## The Teacher-Researchers

### *Scott's Reflection*

I met Mathew at a local teaching conference where he was presenting *The Language Learning Tree*. I was seeking new ideas to inspire the learners I worked with to reframe their conception of themselves as learners in a more growth-oriented way. Carol Dweck developed the idea of the growth mindset as the understanding that learners' skills and attributes grow and change in response to their belief that effort and strategy are the factors that determine intelligence and learning success. Specifically, she found that when learners are taught that learning a new idea changes the physical structure of the brain in a way analogous to exercise changing the body, this changes their beliefs and related behaviors to promote resiliency and learning (Dweck, 2010). Though I had no particular insight into my learners' view of themselves, I had noticed little change in their facility with English over the course of each term. I believed this was the result of their perception of themselves as learners, or of English as a subject, and I was looking for ways to help them reevaluate these ideas.

Creating my own language learning tree as an intermediate Japanese learner was exactly the kind of experience I was hoping to provide. It forced me to consider the current state of my language ability, my feelings about that state, my hopes for the future, and my ideas about how I could attain them. I'll give one example. I have always struggled with *kanji* (Chinese characters in the Japanese writing system), and as a result, with reading and writing Japanese. The process of making my tree highlighted this weakness in the structure and appearance of my tree, but, as I analyzed the goals and practices I employed as a language learner, I noticed that much of what I do and aspire to relates to in-person communication, not reading or writing. This gave me pause, as I considered the possibility that my difficulty with *kanji* may be the result of my goals and approach, not anything inherent in *kanji* or myself. The reflective process of creating my language learning tree had given me new ideas about how to tackle an old problem, and unlike journaling or writing reflections, activities I always felt were artificial and cumbersome, I had enjoyed creating my language tree.

Creating their trees, learners invested focused effort based on conscious choices about how to depict their learning, leading to unique and beautiful trees. A sense of ownership and autonomy developed from the freedom to choose how to represent their ideas. The trees proved to be a powerful tool for learners to assert their individuality, opening my eyes to the diversity within the groups I work with. This served as a timely reminder that the 55 minutes a week I spend with them provides only a glimpse into the kaleidoscope of their varied experience. My presumption that mindset would be a one-size-fits-all solution to the challenges of second language acquisition seems quaint and misplaced in the face of their individuality. However, based on the generic nature of their survey responses, it seems that they do share a

need for continued support as they develop their metacognitive skills. My aspiration to alter the view they had of English and their relation to it was not achieved by this one activity.

*The Language Learning Tree* is an ideal tool for helping learners contemplate their autonomy as language learners, and for encouraging them to develop a growth mindset. The tree's focus on metacognitive strategy assessment, its usefulness as a tool for collaboration between peers, and the growth implied by the tree metaphor closely mirror the main components of effective mindset interventions outlined by Yeager and Dweck (2012). The sole element that is lacking is explicit instruction in the idea of neural plasticity; that struggling to accomplish a challenging task grows new neural connections, changing the physical structure of the brain. My experience with *The Language Tree* convinced me that it can contribute to a shift in learners' attribution of the source of their successes and failures away from a fixed, innate aptitude-based understanding and towards an incremental, growth-as-a-result-of-effort-based understanding. However, it cannot do so overnight.

### ***Mathew's Response***

This collaboration has been rewarding on so many levels. Scott mentions his desire to support the development of a growth mindset in his learners and the suitability of the metaphor of *The Language Learning Tree* to illustrate this mindset through the relationship between the roots and nutrients and the size of the trunk and canopy. My interest in the tree focused more on its ability to represent how the learner saw her language learning experience at the moment she created her tree and relating this image to the process of self-directed learning, which I explain in my reflection below. Although it is easy to see how learning a complex system such as language can be represented by a growing tree, discussing how the tree could be used to introduce a growth mindset added a new dimension to my understanding of the metaphor. Incidentally, Abe, one of the designers of the original *Strategy Tree*, commented on an earlier draft of this paper that they envisaged the tree metaphor as a way to support the notion of a growth mindset. I hope to find a way to make this connection more explicit when I use *The Language Learning Tree* in the future.

Scott and I first met during a workshop where I was introducing *The Language Learning Tree*. Working together as partners, we shared our trees with each other and discussed our learning experiences. During that conversation, Scott realized his efforts to study Japanese did not align with his goals. Furthermore, he realized he had misattributed his failures with *kanji* and was able to see how he might address this. These are the kinds of insights we would ideally like our students to experience too, but Scott and I are both experienced users of our second languages as well as seasoned educators. I think these two factors give us an advantage when analyzing and discussing our trees, and could be a reason why the original tree is such a good tool for language advisors or in discussions where one participant is a teacher. A question that remains for me is how capable our learners are at making similar observations working with peers and near-peers.

### ***Mathew's Reflection***

Commenting on an earlier draft, one of our readers reminded us to consider this activity as one step on the learners' journeys to developing reflective ability and encouraged us to focus more on that journey. In this reflection, I would like to locate this project within my own journey as a teacher who has tried to support the development of his learners' metacognitive abilities through reflection. My interest in reflection began when I became a language learning advisor at a self-access center in 2012. In this capacity, I taught a class on self-directed

learning in which learners were expected to reflect on themselves as learners and use insights from reflection when identifying needs, setting goals, choosing strategies and resources, and evaluating their progress. I struggled to understand why the learners I was working with had such a difficult time reflecting on themselves and the self-directed learning process. At first, I thought these learners just needed a framework for reflection, or an illustrative analogy, or examples of “good” reflection.

It was at this time that I saw a poster presentation by Davies, Abe, and Yoshimuta (2013) reporting on *The Strategy Tree*, and I enthusiastically introduced it to my colleagues. We adapted it for our context and used it as a tool to help learners integrate and visually represent reflections about their language learning experiences. However, my earlier use of *The Language Learning Tree* was limited to stage 1 of this project, after which learners would introduce their trees in groups and then reflect on what they noticed about themselves by looking at others’ trees. Although this seemed to help them to recognize their individual differences and common struggles, my learners’ were still struggling to be insightful and connect their insights to changes in their learning habits. I began to consider how my age could be influencing my beliefs about my learners’ abilities to use reflection effectively in their learning. Was I able to effortlessly reflect on my learning and take appropriate action when I was their age? Dynamic Skill Theory (Fischer & Yan, 2002) seemed to suggest otherwise. Fischer and his colleagues examined the development of cognitive functions and concluded that we move through predictable stages as we develop, but the expression of our cognitive skills is variable. Normally we perform at a functional level appropriate to our developmental stage, but we can perform beyond this functional level with contextual and environmental support. There are two implications of this theory that teachers working with teens should take note of: first, high order cognitive functions are still developing in our learners, even if they are university students, and second, much as Vygotsky suggested with his Zone of Proximal Development, the development of learners’ abilities can be optimized when working in collaboration with stronger learners or supportive materials.

Around this time, I began collaborating with colleagues on a project to support collaborative learning groups. Groups of learners were given bespoke TOEIC study packets, which they completed together. Then they collaborated to identify resources and strategies, and create a study plan for additional practice (Porter, 2015). This helped me see that it is not enough to just get learners to reflect and share ideas. If they could be guided through a process of applying insights to a learning plan, perhaps they could improve their learning. Although learners collaborating on a learning plan might be able to produce a better learning plan than doing so alone, those learners would certainly gain practice thinking about themselves as learners and the learning process as they negotiate the creation of the learning plan with peers. This project left me open to experimenting more with collaboration and metacognition.

At the beginning of this project, I had just read Degeling and Prilla (2011) and their recommendations for supporting collaborative reflection resonated with me. As Lin (2001) summarized, metacognition grows in supportive environments, where learners feel safe to question and experiment, and can benefit from peer support. The tree, itself, is an effective activity for learners to examine themselves and their learning, but the ensuing discussions go further to support the development of metacognitive abilities. These abilities are important to my learners, not just because I believe that greater metacognitive ability will help them to improve their English, but because self-reflection and learner autonomy are valuable skills in nursing. I hope this attention on reflection in English classes helps my learners to strengthen their overall metacognitive capacity.

## Scott's Response

Mathew's reflection resonated with me in several ways. When he described his past experiences teaching reflection, I couldn't help but identify with the challenges that he described in trying to encourage learner reflection that was insightful, deep, or even simply accurate. Mathew writes about his search for a "good" example that would help learners achieve his goals for their reflection, and of how *The Strategy Tree* fulfilled this need. I couldn't agree more with his assessment of the tree as a game-changing tool for enabling reflection about language learning.

I am also struck by the fact that we both seem to have arrived at the beginning of this project with the needs of young adult learners in mind. Though the learners that I have worked with (11-16) are younger than Mathew's (18-19), the need to approach all learners with an understanding of where they are in their cognitive development, particularly with regards to executive function and the relative importance of social connections, is equally important in both age groups. The Montessori philosophy that framed my approach to working with learners aged 11-14 was predicated largely on the understanding that a learner's successful comprehension of any given material is dependent on her developmental readiness for that material and the possession of tools necessary to engage with it. This sensitivity to learners' cognitive development is something that we did not address explicitly in our collaboration, yet it can be seen throughout.

Finally, Mathew and I seem both to have arrived at our interest in pursuing reflection and metacognition as necessary skills for our learners out of a belief that the ability to reflect on and therefore influence one's ideas about the self-as-learner are fundamentally about more than learning a language. Reflection and metacognitive awareness are more than study or learning tools. They are fundamental skills for self-understanding and their practice has the potential to alter every facet of our lives, and the lives of the learners we reach. Though this experience may not have been transformative, it could mark the beginning of a journey that leads learners to destinations they couldn't previously have imagined.

## Conclusion

We designed *The Language Learning Tree* activity to encourage metacognition through reflective practice. It was envisioned as a first experience with reflective practice on foreign language learning for learners who have a diversity of past experiences and aspirations. As the learners went through the activity, they had a wide range of responses to it, and were supported in different ways at different points in the activity. *The Language Learning Tree* showed itself to be a tool of remarkable explanatory power for our learners to reflect on their language learning experiences. The metaphor of the tree, sun, and water provided a wonderful starting point for exploring the needs of each learner, and the clarity of the metaphor allows learners to access its benefits. The structure provided by Degeling and Prilla for this reflection activity was an effective way for learners to move through the reflection, and, although not all participants reached the goal we set for their reflective journey, the journey itself was of value, as was sharing it with peers.

A strength of the metaphor of the tree is that trees grow and change. Ideally, reflecting on the tree could be incorporated into a syllabus at regular intervals to show learners how they are growing, allowing them to assess the effectiveness of their current practices. In the third stage of our activity, setting a goal based on the insights achieved during reflection, learners needed support beyond what was provided by the reflection worksheet and survey. Specifically, they needed support identifying elements of their trees that were significant, and with applying the self-knowledge gained to the task of goal setting. However, goal setting is a skill

all its own that we did not address. Additionally, the activity does not provide follow through on the goals that learners developed, nor did we create an expectation that the learners would follow up on their own. Teachers hoping to capitalize on the benefits of reflection should consider adopting an approach that addresses goal setting explicitly, or engages learners individually.

Collaborating on this activity has made us more aware that reflection is a skill that develops over time in conjunction with metacognitive awareness and as a result of repeated practice and refinement. It cannot be forced to proceed at a predetermined pace or in accordance with the artificial requirements set by teachers. Looking back on this experience, we hope the story we have shared communicates to the reader the value of introducing reflection as a metacognitive practice and that our experience provides a useful guide to those who are interested in doing the same. We can unreservedly promote the use of *The Language Learning Tree* as a tool to help learners develop and express their understanding of themselves in the context of their language learning. It is our belief that this type of understanding is vital to learners' long-term success, and that the benefits of reflective practice extend beyond the language classroom. Although our learners' experience with reflection is just beginning, we hope that we've sown seeds that, with the right combination of sunlight, water, and nutrients, will grow into towering trees bearing the fruit of carefully cultivated goals and targeted study practices.

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## Review Process

This paper was open-reviewed by the following Review Network members: Chika Hayashi, Ann Mayeda, and Ted O'Neill. (*Contributors have the option of open or blind review*).

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## Appendix A

### *Self-Assessment Survey and Instructions*

Each learner is different. This activity will help you realize how you are different from your classmates and how much you've already accomplished in your study of English. Read the topics below and circle the answer that is most appropriate for you.

Leaves	Low			High
Listening	1	2	3	4
Reading	1	2	3	4
Speaking	1	2	3	4
Writing	1	2	3	4
Trunk	Low			High
Grammar	1	2	3	4
Vocabulary	1	2	3	4
Pronunciation	1	2	3	4
Roots	Low/Small			High/Large
Confidence	1	2	3	4
Interest	1	2	3	4
Motivation	1	2	3	4
Activeness	1	2	3	4
<b>The Sun</b>				
What would you like to be able to do in English? Write 3-5 things.				
<b>Water &amp; Fertilizer</b>				
What strategies and methods have you used to study English? Write as many as you can.				

### *How to Draw Your Tree*

#### **Leaves**

Draw your canopy with four areas to represent the four skills. Fill each area with leaves based on how high or low you rated your ability for that skill. If your skill level is high, draw many big leaves. Conversely, if your skill level is low, fill your canopy with less leaves.

#### **Trunk**

Vocabulary, grammar, and pronunciation support the four skills of English. The trunk is made up of these three. Make your trunk fatter when the skill level is high and thinner when the

skill level is low.

### **Roots**

The roots of the tree are made up of affective factors. If your confidence, interest, motivation, or activeness (initiative) is high, draw a root that is long and fat. If one of these factors is low, draw a root that is short and thin.

### **The Sun**

The sun is a source of energy, and here its rays represents your goals. Draw the sun's rays and write your goals on them.

### **Water & Fertilizer**

Water and fertilizer provide the tree with nutrients so it can grow big and strong. Similarly, your learning strategies and resources play an important role in improving your English abilities.

Draw enough water/fertilizer to represent your different learning strategies and resources.

## **Appendix B**

### ***Reflection Worksheet***

1. Look at each other's Language Learning Trees. Everyone's tree has similarities and differences. Talk about A and B in your group for a total of 5 minutes.
  - A. What are two ways that your trees are the same?
  - B. What are two ways that your trees are different?
2. Next, introduce your tree. Talk about A-D in your group for a total of 10 minutes.
  - A. Which part of your tree is the biggest? Why?
  - B. Which part of your tree is the smallest? Why?
  - C. Which goal from your sun do you feel the most strongly about? Why?
  - D. Which practice from your water and fertilizer do you think is the most useful? Why?
  - \* This is a goal a feel strongly about.
  - \* This is a practice from my water/fertilizer that is very useful for me.
3. Talk about your goal with classmates. Work together to think of ways to achieve this goal. You have 10 minutes.
  - \* Looking at my tree, I hope I can improve \_\_\_\_\_ by the end of this school year.I can do this by: \_\_\_\_\_

## Appendix C

### *Reflection Assessment Survey*

**Directions:** Read the question and circle the most appropriate answer from the four choices: *strongly agree, agree, disagree, strongly disagree.*

1A. After making this tree and talking about it, I have ideas about how I can be a better English learner.

*strongly agree, agree, disagree, strongly disagree*

1B. Explain in detail.

2A. Making the language tree and/or talking about it helped me learn something.

a. About myself *strongly agree, agree, disagree, strongly disagree*

b. About my classmates *strongly agree, agree, disagree, strongly disagree*

c. About language learning *strongly agree, agree, disagree, strongly disagree*

d. About English *strongly agree, agree, disagree, strongly disagree*

2B. Explain in detail.

3. Making this tree and talking about it with classmates was useful.

*strongly agree, agree, disagree, strongly disagree*

4. I would recommend these activities for future students.

*strongly agree, agree, disagree, strongly disagree*