文学研究科国際言語教育専攻修士課程修了

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I. Introduction

In the field of language teaching methods and approaches, we are currently in what is known as the post-methodology era. In other words, all the methodologies were established, and teachers and learners should choose various theories or methodologies in order to fit the needs and purposes of the stakeholders (Brown, 2007; Richards & Rodgers, 2014). Briefly looking at the history of language teaching, the grammar-translation method was the first method appeared in school. Although the grammar-translation method cannot be considered an evidence-based theory (Richards & Rodgers, 2014), it is still a standard method of English classroom teaching in Japan. Subsequently, many approaches and methods have been developed based on the theories of second language acquisition (Brown, 2007). Second language acquisition (SLA) theories, which constitute the base of approaches and methods, can be categorized as models of cognitive, structural, functional, interactional, sociocultural, genre and lexical (Richards & Rodgers, 2014). At the level of approach, teachers and learners may couple those language theories and language learning theories in many ways to fit the purpose or context of learning. Kramsch (2002), offers yet another way to describe language learning theories by using the metaphors of 'learner-as-computer' and 'learner-as-apprentice' in that information processing and sociocultural phenomena are different in research traditions. Another metaphor had arisen earlier that offers greater potential for understanding language learning. The 'ecological' metaphor of 'complex dynamic system (CDS)', which appeared in the natural sciences in the 1960s (N. C. Ellis, 2007; N. C. Ellis & Larsen-Freeman, 2006; Kramsch, 2002; Larsen-Freeman, 1997; The "Five Graces Group" et al., 2009).

II. Theoretical framework and background of the study

1. Complex dynamic theory

Scientists, traditionally, have divided phenomenon into pieces and investigated relationships

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of components mainly based on the framework of cause and effect. In 1997, Larsen-Freeman (1997) introduced 'chaos/complexity theory', as an explanatory framework of second language acquisition. Features of CDS are "dynamic, complex, nonlinear, chaotic, unpredictable, sensitive to initial conditions, open, self-organizing, feedback sensitive, and adaptive" (Larsen-Freeman, 1997) and these are applicable for investigating language acquisition (N. C. Ellis, 2007; N. C. Ellis & Larsen-Freeman, 2006; Larsen-Freeman & Cameron, 2008; The "Five Graces Group" et al., 2009). To investigate a complex dynamic system, standardized research methods have not established yet. However, some researchers have attempted to develop methods suitable for this task. Social Network Analysis (SNA) is one suggestion from Mercer (2015) that looks at the relationships and dynamics among people and/or variables. Retrospective Qualitative Modeling (RQM), which coined by Dörnyei, is another research method utilized by some researchers (Chan, Dörnyei, & Henry, 2015). Simply state, SNA is more suitable to focus on group dynamics, whereas, RQM focuses more on the trajectory of variables.

2. Implicit and explicit language learning

Rebuschat (2015) argued that human behaviors, for instance, language comprehension and production, music cognition, intuitive decision making, and social interaction are considered to be dependent on implicit knowledge. The process of unconscious acquisition of implicit knowledge is called implicit learning. In contrast, acquiring conscious (explicit) knowledge is refer to explicit learning. In the field of language education, a language teacher would teach students vocabulary, grammar, and how to write in the target language, or how to adjust student's speech according to the context. Students learn those knowledge consciously, thus, L2 learning is usually conducted by explicit language teaching. On the contrary, L1 is acquired through implicit learning (Segalowitz, 2010). Learners learn language while they are using their L2 knowledge to do something what s/he wants to do. Here leaners' intension is not learning language but doing something using L2. Many teachers recommend to do both explicit and implicit learning, however, implicit learning seems like degraded especially in Japanese classrooms.

3. Extensive reading

Extensive reading is regarded as the one of the fluency developing activity and known as effective to developing vocabulary (Nation, 2008; Nation, I. S. P., 2009). The first teacher who applied extensive reading approach to the second language learning was Palmer (Day & Bamford, 2007). Intensive reading was also another invention by Palmer, and he argued that extensive and

intensive reading are equally important for language learning and teaching. Krashen's input hypothesis, well known as "i + 1", is also theoretical foundation for selecting suitable book for the leaner (Krashen, S., 1985). The number of research investigating the effects of extensive reading are revealing positive gain from ER (Mason & Krashen, 1997; Nishizawa, Yoshioka, & Fukada, 2010; Yamashita, 2008).

In Japan, Sakai argued to read easy books extensively (Sakai, 1996), and advocated the Three Principles of Tadoku (多読=reading extensively). Later, Sakai proposed to read one million words as a milestone (Sakai, 2002). This approach was supported by the SSS (Start with Simple Stories) English Study Group and the Japan Extensive Reading Association (JERA) (Furukawa, 2010). Ito (2003) also published a book advocating extensive reading and listening to easy materials like junior high school textbook. These books targeted mainly adult learners, who were struggling with English after years of learning. Thus, ER spread mainly among adult learners in Japan. Extensive reading as a strategy to improve students' proficiency level at schools first appeared in 1989 by Kanatani et al. at high school (Kanatani, Osada, Kimura, & Minai, 1991). Nevertheless, ER has not infiltrated into Japanese school system wide enough to become an ordinary strategy for learning English until now. However, increasing number of schools provide ER programs in Japan (Tanaka & Stapleton, 2007). Those programs also include extensive listening in many cases (Nishizawa et al., 2010; Atsuko Takase, 2007; Tanaka & Stapleton, 2007). According to the flexibility of the curriculum, ER increased across colleges and universities as supplemental courses or experimental application (Takase, 2012).

4. Implicit Language Learners (ILLs)

Among learners who are practicing ER, those who include extensive listening, casual conversation and writing, gradually appeared. Since those strategies are considered as implicit language learning, therefore the researcher named those learners as implicit language learners (ILLs).

IV. Research Questions

The advocators of implicit language learning claim that even adult ILL's can acquire second language through implicit learning, which means that by extensive input and output in a relaxing manner like children learn their own language (L1). Furthermore, applying implicit language learning changes perspectives of learners on English as the tools to 'utilize' from the subject of 'learning'. With the purpose of respond to the lack of current knowledge about implicit language learning in the literature review, the following research questions were formulated:

- 1. How have the strategies and the study materials changed (or not), over time, until an ILL reached the attractor state?
- 2. How has the self-evaluated proficiency of an ILL changed, before and after, he or she applied implicit language learning?
- 3. Is there any change in ILL's perspectives on learning English?

V. Research Purpose

Implicit learning seems to be degraded or ignored in language education in Japan, while L2 is taught and learned explicitly in the most cases. In addition, the effect of implicit learning has been considered difficult to recognize because the learning or acquisition occur unconsciously by implicit learning. In this study, the researcher expected to reveal some aspects of implicit language learning within the framework of complex dynamic system by focusing on the trajectories of language learning, changes of perspectives on learning language and self-evaluated proficiency of learners' who are engaged in implicit language learning intensively and longitudinally. Adult implicit language learners (ILLs) who have avoided to utilize explicit learning strategies while conducting implicit language learning seem like salient subjects to explore implicit language learning, because the affect from explicit language learning can be expected to be smaller than other learners. Thus, this research investigated and collected data from adult ILLs who can avoid explicit language learning as much as possible.

VI. Significance of the Study

Many articles investigating explicit learning such as grammar teaching (Azar, 2007; R. Ellis, 1998; Klapper & Rees, 2003; VanPatten, 1993) or vocabulary (Channel, 1981; Charteris-Black, 2000; Jianzhong, 2003; Johns, 1994; Richards, 1976) exist, whereas studies about implicit language learning are still limited in number and variety (Hulstijn, 2005; Kittleson, Aguilar, Tokerud, Plante, & Asbjornsen, 2010; Yamashita, 2008). Some studies are exploring explicit and implicit language learning by comparing or contrasting (N. C. Ellis, 2005; Hulstijn, 2005; Leow & Sanz, 2010; Scott, 1990). While, qualitative studies that explores implicit language learners are minimum in number. Papers on extensive reading (some also including extensive listening) exist large in volume. On the other hand, research on implicit language learning as a whole is still limited in number and variety. Some researchers investigated on English learners utilizing implicit learning, however, those surveys are investigating limited aspects of implicit learning.

For example, the research on acquisition of explicit and implicit grammatical knowledge of the English plural morpheme were conducted by Japanese researchers (Kusanagi & Yamashita, 2013). Moreover, the framework of complex dynamic system theory is relatively new in the field of language acquisition study. Thus, revealing some aspects of implicit language learning by utilizing CDS framework might contribute to add unique insight of second language acquisition from different point of view.

VII. Methodology

This research applied the method Chan developed based on the Retrospective qualitative modelling that was created by Dörnyei (Hiver, 2015)(Chan, Dörnyei, & Henry, 2015). In order to investigate complex system like language acquisition, the researcher should examine the change rather than predict the result (Larsen-Freeman & Cameron, 2008). Thus, the procedures are reversed from traditional research; this study started from identifying the attractor state, which is regarded as an extreme pattern of a system. According to Hiver (2015), "all categorical patterns that L2 learners can settle into (when casing one or more L2 learner as the dynamic system), they can be considered as attractor states".

The expected attractor states include ILLs with some specific characteristics which are common among language learners (e.g., motivation, learning style or learning strategies) (Dörnyei, 2009). The researcher identified the attractor state of Japanese adult ILLs as those learners, who became comfortable with English, and who are using English as their own language; regardless of specific language proficiency levels or abilities, but rather without help from L1.

To secure the validity, the researcher triangulated the data by collecting learners' interviews, learning records, and can-do list questionnaires. To answer the research questions, the investigation was focused on the changes in learning strategies and materials, self-evaluated proficiency and perspective on learning English. To exploring the trajectories of ILLs, the semi-structured interviews were conducted and analyzed, together with their learning records. In order to collect interview data, three sessions were planned and conducted.

1. Participants

The researcher approached five candidates who seemed like presenting the attractor state for this study, and four of them agreed to participate. All four participants are longitudinal implicit language learners (ILLs). Participants are personal acquaintances of the researcher who is also can be categorized as an ILL herself. The researcher met them in online community of 'tadoku' practitioners, and has known each other for several years. Participants are one male and three females, aged 30s to 50s. All of the participants are connected through multiple sources of social media like Twitter, Facebook, and/or online Forum. To protect participants' privacy, synonymous names were chosen randomly by the researcher.

Table 1

Participants' gender, years of practicing extensive reading and listening, word count of reading

	Masaru	Yoko	Junko	Tomomi
gender	male	female	female	female
ER history	4 years	13 years	10 years	12 years
Word count	1.5 million~	20 million~	8 million~	20 million~

Note. Word count indicates that how many words each participant had read until they handed the researcher their learning records. Numbers are presented above are consisting of word counts of reading materials and some are very roughly counted. In addition, for Masaru and Junko, they already stopped keeping reading records with word count lately. Words included in the videos and listening materials were ignored because of the difficulty of collecting the data.

VII. Results

1. Trajectories of language learning of adult ILLs and theoretical findings

In a storyline produced by SCAT analysis contains all data of three interviews. The researcher weaved themes and constructs emerged from the excerpts from transcribed interviews and background information. As Otani (2008) suggested, theoretical findings were also generated from a storyline.

(1) Storyline of Masaru.

In his school days, Masaru had a neutral impression about English. All the teachers had similar teaching styles and gave no impact on him. Only scores and grades had meaning for him. Masaru believed reading passages aloud was an effective strategy for learning English, so he used this strategy to prepare for tests. At the same time, he had covert admiration to being active globally. The covert passion to learn English encouraged him to gather information about learning strategies or materials. Even though Masaru had tried to study by himself, the effort had never been successful. He was seeking for advice and place to get materials, and using the

Internet to gain information from online communities such as online bulletin board systems and forum for 'tadoku' learners. Unlike ordinary Japanese language learners, he used to ignore dictionaries most of the times when he learn foreign language.

In the novice phase, Masaru was seriously seeking the results of the method of extensive reading and joined the extensive reading course of the NPO Tadoku Supporters. At same time, the place provided him suitable and enjoyable materials. He was following instructions by the supporters seriously. Moreover, he was keeping precise learning record, and assessing the method. He read easy and controlled materials. Especially, he read the Oxford Reading Tree series books (stage 1 to 8) repeatedly using the strategy of reading while listening (RWL). Phase transfer occurred when he watched TV serial drama without subtitles. After watching children's shows 20-30 hours, Masaru had already been used to be immersed in English. He noticed that prosody was conveying messages as same as words and phrases. Regardless of the level of English, he could enjoy what he really wanted to watch, and involved in the world of the show. Scaffolding by audio could make Masaru free from the concept of level of English. This experience changed his standard of 'difficult'. According to Masaru, selecting materials based on curiosity and intuitive was much important than considering the level of materials. His improvement of English proficiency seemed very rapid, looking from other learners' point of view, but he believes that everybody can acquire English like him.

Practice of speaking English was started from answering simple and/or closed questions and casual conversation. Chitchat group using Skype created the opportunity to practice speaking. Speaking in English required courage, and when he spoke, he noticed the gap between Japanese and English. As for his personal characteristics, Masaru has good non-verbal communication skill, a sense of responsibility, and contextual guessing from visual, aural, and/or situational cues. These characteristics had the effect of lowering affective filters when he experienced authentic English and casual peer-to-peer conversation during travel abroad. The role as a leader in chitchat group, as well as peer-to-peer conversation, encouraged him to speak. He also used Twitter to practice writing. Masaru believed that internalized input transfers to output, so he used shadowing to change his English into British accent. Encountering with a Japanese student with British accent stimulated his intrinsic motivation to change his accent.

After reading 1.5 million words and two years of practice, phase transition occurred. When he became confident in the method and strategies, reasons for keeping learning record for assessment became useless. Masaru started to follow his own preferences and stopped keeping it. Moreover, gained enough confidence to be free from affective filters and extrinsic motivation, Masaru started following his curiosity, became free from learning strategies and English proficiency level of materials.

In user phase, Masaru admitted that his 'tadoku' became not for ER; ER did not for learning English anymore. Mobile digital devices and the Internet allowed him to use English daily and casually. Watching YouTube or other videos on mobile devices became one of the most preferable way to enjoy English. Masaru found his specific objectives of learning English when he found the Massive Open Online Courses (MOOCs) that provide educational contents for free. This raised his intrinsic motivation greatly. He followed curiosity and started to participate in the MOOCs. Masaru chose feasible courses like elementary school level at the beginning. As a learner and a user of English, Masaru chose to utilize the preferred strategy of watching videos. Masaru started from doing by feasible amount of materials and comfortable level courses. Finally he completed a course provided by the edX related to his profession.

Now Masaru is using English daily. He ordinarily interacts with friends using Twitter or other SNS platforms where learners exchange information and feelings casually and in real time. Since English became almost same as Japanese in his mind, his perception on English proficiency changed accordingly. That encouraged him to challenge something that seemed difficult before.

(2) Storyline of Yurie.

Her impression of English was good and fascinating. Basic grammar was understandable, and her test scores were good accordingly. During her junior high school days Yurie joined a club that studied foreign languages. However, entering a high school with a reputation for entrance exam preparation, English classes turned into an unsatisfying, and English became a difficult subject for her. To prepare for entrance exams, she entered a cram school. The teacher of cram school forced her to study unsuitable materials for her English proficiency level. However, the scores were very important, she should study very hard. She felt strong sense of failure at that time. Even though her grades and test scores of tests were not good, Yurie kept admiration to read original books written in English someday.

Her job required her to obtain some knowledge of English vocabulary, Yurie was motivated to learn English. Since having enough free time, she started to study English by herself. Yurie kept a covert passion for reading English books. Unconsciously, Yurie recycled learning strategies in school days even though it was unsuccessful. She started from studying basic grammar for junior high school students. However, this attempt turned out to be unsuccessful because explicit knowledge of English learned by grammar drills did not transfer to comprehension skill of texts. Nevertheless, her passion for reading original books did not vanish. Next, she tried to read a short

story written for adult readers with dictionary. Again, her explicit knowledge of English from dictionary did not transfer to comprehension, and she could not finish the book. One day, Yurie found the book that introduced tadoku (extensive reading). She peeked into it and read an easy short story included in the book. Yurie could finish reading whole story in English, and could experience the pleasure of reading and started ER by herself.

In the novice phase, Yurie tried hard to follow instructions of ER guidebooks and keeping record of reading. She carefully chose reading materials from easy books, however, obtaining very easy English books from ordinary bookstores was difficult. She bought many books from online bookstores or borrowed from the library nearby. Picture books in the library were difficult to read through sometimes; instead, she preferred levelled readers (LR).

In addition to reading, Yurie tried to practice shadowing sometimes because audio CD was attached to picture books. In the novice phase, she mainly read easy books extensively. However, at a certain point, she recognized improvement of listening skill. The experience changed her perspective on reading and learning in English. ER was a time consuming activity, but keeping a record of books was fun for her. Thus, Yurie has been keeping the reading record for satisfaction. The online community was an important place to get information about books. Bookstores also played an important role as a place of getting information about books.

Yurie would read thin books or short stories to obtain a sense of satisfaction and increase motivation when reading stamina was not enough to read thick, difficult books. She started RWL with books including different languages like French and Swedish. Without scaffolding by audio, she would stop reading where a word or names from foreign languages other than English. From long time experience of ER, reading English became a daily habit for her. Yurie had a belief that output must happen by a large amount of input. After reading one million words, she gained the confidence to try new skill?speaking and writing. Unfortunately, lack of opportunity at that time, she could not try to practice speaking. Three years of ER, the anniversary of 8 million words, she posted her resolution to the bulletin board system of the tadoku learners that she would try to speak and write in English.

Curiosity-driven actions emerged especially from implicit language learner phase. After some more years past, development of the information and communication technology created the opportunity to communicate in English. She joined a periodic practice of chitchat group in English using Skype. Her curiosity and passion to speak in English exceeded fear of making mistakes. Peer-to-peer conversation in the community of ILLs that allowed participants to use both Japanese and English lowered affective filter when speaking in English. Still feeling lack of confidence in grammar, Yurie overcame the fear of making mistakes and started speaking in English.

When watching enjoyable TV program, poor comprehension of language did not affect her pleasure of watching it in English. Images helped her to understand the story. Yurie reported that if she had not experienced ER, she could not enjoy watching videos without subtitles. Realized that real conversation could be messy both in Japanese and English in many cases, and might not be always grammatically correct like what she'd studied at school as a subject. She noticed her own improvement in English when she tried to express herself in English, because she could speak spontaneously without interference of Japanese. Yurie started to post some essays on her book review blog to express herself in English. This activity was purely from her intrinsic motivation.

Sometimes implicit knowledge emerged in her mind when she spoke in English. She felt that implicit knowledge of language grows gradually, so without the opportunity to assess, accumulating implicit knowledge was difficult to notice. Output like speaking and writing could be an opportunity to assess one's own improvement, she thinks. Sharing information and community are important to accelerate motivation as well.

Judging from speaking spontaneously without interference of Japanese, and success of communication in English during a recent trip to Europe, Yurie reported that her English was acquired not learned. She could fulfil her goal and objective of learning English?reading original books written in English. By reading extensively, she became to understand language and culture deep enough to make friend with English and English speaking people in the end.

(3) Storyline of Junko.

Junko had no specific memory of teaching and learning at junior high school. However, she remembered explicit grammar teaching with difficult grammar terms in high school. Junko had weak extrinsic motivation like social expectation as an office worker, but had intrinsic motivation at her work place. A regrettable experience during a business trip stimulated her intrinsic motivation. She expressed that she does not feel any necessity to communicate better with her cousins, who are more fluent in English rather than Japanese, but it seems that shedding some influence on her. Curiosity became intrinsic motivation, so she started a regimen of self-study which unfortunately turned out to be unsuccessful.

In the novice phase, Junko joined a book club to get materials and information. She reported that she has the personal characteristics of being good at contextual guessing. She preferred scaffolding by audio when reading. Junko was seeking advice to overcome obstacles to progress,

and joined some places where supporters might be, but could not get sufficient support from anywhere. She enjoyed reading but limited range of the books were available for her. However, while reading extensively, she could not enjoy material beyond her level. Junko also claimed that contextual guessing was difficult when the story was too short, in her opinion, under 3000 to 5000 words. Reading while listening (RWL) changed her perspective on English because the performance of narrator enhanced her comprehension of written texts. She also reported that RWL led her to conduct extensive watching (EW). Likewise, she regarded ER is foundation of EW.

Rewarding experiences happened sometimes, and those experiences stimulated her intrinsic motivation. For example, Junko could enjoy watching English films without subtitles. It was an animated film for children but her excitement was enormous. She also noticed her improvement of English when she was reading while listening. At first, it was difficult to find the passage where the narrator was reading, and once she put the book down, she could not find where to start again. However, from a certain point, she was able to find where she should start reading again quickly.

After five million words of reading, Junko stopped keeping her records on notebook, instead she continues to keep tracking her learning by reporting on twitter in Japanese, where she can get some comments from other learners and discuss the materials and strategies. Junko reported that, after interval of several months, she noticed improvement of reading comprehension. She felt that this phenomenon was similar to the acquisition of technical skills at her job. She also argued that input by ER did not transfer into output.

Cultural knowledge by reading children's books extensively enhanced her listening comprehension. Online video services such as streaming digital video services and YouTube enabled her to conduct extensive watching.

At the third interview, Junko reported that she is ignoring proficiency level when she reads or watches in English. Following curiosity is more important than considering proficiency level of materials these days. In her mind, distinction between Japanese and English does not exist. Recently, she finally convinced her own preference to audio and image than texts, so she is engaging EW mainly. She also reported that in her mind, the borderlines among reading, listening and watching are vague; so is the borderline between Japanese and English. Junko is good at using digital devices, and she adjusts listening speed when she uses IC recorder, switching multiple dictionaries or other features of devices such as Kindle.

(4) Storylines of Tomomi.

Tomomi's encounter with English started back in her elementary school days. First, she joined an English classroom in her neighborhood and learned English for entertainment. This might have stimulated her curiosity, but when she tried to join another English class, she was refused to join because she had not mastered phonemic symbols. In junior high school, her English grades were an average. English teachers used the typical teaching style, so she did not have any particular memory of learning English. Extrinsic motivation came from her mother when she encouraged Tomomi to try a correspondence English course, but this self-study attempt was unsuccessful. In high school days, her private tutor who was very oppressive and strict forced her to study English. This experience made her a reluctant student. As a college student, she had had covert passion to study English and experience abroad but was not interested in English as a subject. She entered an English conversation school to prepare to study abroad. Tomomi experienced studying abroad and authentic English for two months in Canada where she engaged in peer-to-peer conversation and English classes in a language school. After that, she assumed that she was satisfied with this brief experience. Since she was in an environment without English, she totally forgot about English. After several years, the boom of Harry Potter came to Japan and reading Harry Potter became her new objective to learn English. This was strong intrinsic motivation for self-study, and she bought some volumes and finished reading them using dictionary. However, lacking confidence in reading comprehension, searched some ways to improve her reading comprehension skill and met tadoku (extensive reading).

In novice phase, Tomomi kept high intrinsic motivation, while setting her goal of reading one million words, which was the milestone for tadoku at that time. She set Harry Potter, her favorite book, as a reward for reading one million words. Now she reported that she feels like looking at other person's record, she read books after books as though assessing own proficiency level. She was following most of the instructions and the three principles of tadoku. She was so engaged in materials, unconsciously using silent reading, skipping and scanning to read faster, and reached the first milestone of one million words as soon as possible.

One day, after reading three million words, Tomomi peeked into a book for young adult readers. She noticed that she could enjoy the book. The story was fascinating, moreover, she was fascinated by the fact that she could read paperback. Tomomi engaged in reading the series of seven books (280,000 words in total) in one month. In these days, she was very good at skipping and ignoring unfamiliar words. According to her report, she was using different reading strategies from now. Tomomi also commented that the longer the material, she could use skimming and Investigating the Implicit Language Learning of Japanese Adult EFL Learners contextual guessing, and it became easier to comprehend.

When she started reading while listening (RWL), Tomomi could not understand the contents of what she was listening and reading. At that time, without comprehension, she just followed the sound and texts, aurally and visually. Nevertheless, compared to the extensive listening (EL) without written text, which she tried for a while, she noticed improvement of listening skill during RWL. Gradually, her listening comprehension improved. Improved listening skills changed her learning strategy from RWL to EL, free from the scaffolding of texts, and she was happy with that because she can enjoy books very easily.

These days, Tomomi watches videos casually without subtitles, because, her listening skill has improved enough to be free from scaffolding by texts. Tomomi follows her own feeling or curiosity when choosing materials or strategies, by eliminating extrinsic motivation such as three principles of tadoku or other learners' strategies. Thus, she went back to what she really wanted to do: reading enjoyable books. Recently, she is unsatisfied with the term 'tadoku', because, for her, reading English books is not ER but just reading books in English.

After longitudinal ER and RWL, and experiencing watching without subtitles, she obtained different perspectives on learning English. Her perspectives on proficiency level and ability changed. Her attitude toward English also changed. Being brave enough to challenge on her way, curiosity is the first factor when she choose something to do in English. For instance, when gathering information, she goes back and forth in Japanese and English whichever the information she could obtain. There is no distinction between English and Japanese. However, these changes made her difficult to solve problems of tests. The flexibility of her English knowledge impedes to choose one right answer. Tomomi reported that Japanese interferences do not exist when she is speaking in English spontaneously. Rather, English seemed to have grown as her own language, because she noticed that she understood English automatically.

Recently Tomomi started teaching at cram school as a part-time job that requires her to teach English explicitly to prepare students for entrance exams. She became sensitive to grammatical errors, then fears of making mistakes emerged. Unfortunately, explicit grammar knowledge is hindering her ability to engage in and to enjoy the peer-to-peer English communication in which she once passionately participated. According to her opinion about implicit learning, it seems better to start from EW or EL. Moreover, to lower the affective filter of learners, starting from an enjoyable, small amount and comprehensible materials are important. Revealing her happiness to meet this approach and what she had gained from these experiences, Tomomi emphasized that she wants everybody to experience this easiness of ILLs are enjoying, the way they acquire English and use it. She also mentioned that implicit language learning would be accepted widely if there were a way to assess the effect of implicit learning by numbers.

2. Comparing reading materials and strategies of ILLs

From learners' reading record, the researcher will present the type of books, word count and period to achieve one million words. This is simply because of the time constrain. However, a CDS is sensitive to initial conditions, thus investigating reading materials of their initial condition might valuable. Both Yurie and Tomomi, who are recognized as avid readers, reached one million words within very short period of time (Table 2). Yurie took only four months and Tomomi took six months until they finished reading one million words.

Table 2.

	PicB	PicB(L)	LR	LR (L)	CHLD	CHLD (L)	YA (L)	GR	GR (L)	у.
Masaru	00. 98	00.00	11.08	18. 47	08. 79	16. 42	06.66	19.01	18. 59	0.9
Yurie	06. 02	00.00	14.86	00.00	24. 71	00.00	00.00	54. 41	00.00	0.3
Junko	05.62	00. 10	16.07	00. 74	15.89	00. 56	00.00	49. 75	11. 28	4. 0*
Tomomi	00.00	00.00	04. 18	00. 00	03. 49	00.00	00.00	92. 32	00.00	0.5
SUM	12.62	00.10	46.19	19. 21	52.88	16.98	06.66	212. 49	29. 87	

Reading materials until one million words of reading.

Note. PicB = picture book, LR = levelled reader, CHID = children's chapter book, YA = young adult book, GR = graded reader. (L) = reading while listening. y = year; indicating the total period which the learners reached to the milestone of one million words. Numbers were figured; f(x) = word count/total (%). Total word counts for each participants are slightly different because those numbers are actual word count by each participant when their reading records surpassed the milestone of one million words. *including three years of blank period.

Looking at the types of materials, GR were the most extensively read by ILLs in novice phase. However, if you look at the number of books read by the ILLs, LR surpass GR. The researcher calculated the percentage of words read by each ILL by using learning strategy of reading-while-listening (RWL). When Yurie and Tomomi started extensive reading, ER wasn't expanded to include extensive listening. Moreover, listening materials like CDs, mp3 and podcast were difficult to obtain for the learners at that time. Nevertheless, Junko and Masaru, regarded as avid listener, was using RWL from the novice phase (Table 3). In addition, during her four years of interval, she watched movies sometimes.

Table 3.

	Reading	Listening	Watching	Speaking	Writing	Dictionary
Masaru	YA/CHLD/Pic	RWL	w/o	Ø	Twitter,	
	Bk/LR/GR		subtitles		blog	
Yurie	Novels/YA/CHL	RWL/EL	w/o	0	Twitter,	
	D/Pic		subtitles		blog	
	Bk/LR/GR					
Junko	YA/Pic Bk/	RWL	w/o			△ (L1)
	CHLD/LR/GR		subtitles L1			
			subtitles			
Tomomi	Novels/YA/CHL	EL	w/o	Δ	Twitter	Δ
	D/Pic		subtitles			
	Bk/LR/GR					

Learning strategies and ILLs.

Note. Table shows that the learner's usage of leaning strategies and reading materials. Dictionary is indicating the usage of dictionary. \bigcirc =Frequently/regularly, \bigcirc =Ordinary, \triangle =Sometimes

Only Junko had not had any opportunity to speak and writing in English. Masaru and Yurie do not use dictionary, Junko and Tomomi use dictionaries. Only Junko reported that watching television programs or movies with Japanese subtitles when she watches them via streaming service provided by Japanese company (Table 3).

3. Self-evaluated proficiency

The researcher utilized the questionnaires developed from Japanese version of CERF (Tono, 2012), as a tool to elicited learners self-evaluation and perspectives about their English proficiency level as much as possible during interviews. The questions included in the both two questionnaires are the same so that the result can be compared.

According to the results, all the participants had improved English proficiency to some extent (Table 4). Comparing scores among participants might have not much meaning; however, significant increase in numbers can be seen when looking at intra-personal differences, before and after of experiencing implicit language learning. For example, Masaru and Yurie doubled the scores of the first results.

Table 4.

Results of self-evaluated	English	proficiency	questionnaires
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Name	Before	After
Masaru	198	382
Yurie	168	374
Junko	172	312
Tomomi	278	367

Note. The number indicate accumulated scores of each participant's result of the can-do list Questionnaires; before and after applying implicit language learning.

However, Masaru admitted his opinion about the results as follows: "...I think the standard for the answers has been changed from the first time and the second time. Indeed, my perspectives on English have changed already. Maybe...if the actual capability was same, and I might not check four at that time, I can say 'yes' now. Before starting ER, I would answer 'yes' when I was sure 100%, but now only 60%, then I can say that I can do it. 「(中略) …こことここ で判断の基準が、こっち(第一回) とこっち(第二回) で、違ってるような気がするな。やっぱりな。 自分の物差しが変わっちゃってるからね。なんとなく。この頃の基準でいけば4にはならいかもしれ ないことも、今なら4て言えちゃうもんね。100 点じゃないとできる、って言えないけど、こっちは 60 点ぐらいでもできるって言えちゃったりね。」." One of the unique point is that his scores of before implicit learning of Q101 that asks about understanding of unstructured speech. Apparently, the score of this question is higher than other participants.

Yurie was the learner whose score increased more than double. At the first time, her total score was the lowest of 168; however, she scored 374 points for the second time. According to the result, she is capable to speak, listen, write and communicate around intermediate level. She also scored four for the Q101, and her highest mark were Q106 and Q107, there she checked three. Q106 is asking whether enable to understand any type of fast native speed conversation, and Q107 is asking whether enable to comprehend any type of complex written texts. Junko also scored relatively high at Q101, Q106, and Q107. All of them can be categorized as receptive ability, which related to comprehension. However, her scores related to output are all relatively lower than other learners.

Tomomi marked the highest scores for the 'before implicit learning' questionnaire. These scores might not be reflecting their actual proficiency, however, Tomomi could be regarded as the highest in proficiency before starting implicit language learning. Although increased number of

scores is relatively small, her perspectives on what she can do with English had changed according to her storyline.

IX. Discussion

This survey is reflecting my own experiences as a language learner, especially, as an implicit language learner. Before starting this approach, I had been a freelance translator in the field of business and education. I was always consulting with multiple volumes of dictionaries and other resources. Translating English into Japanese was almost like a habit for me; every time I heard English, I automatically translated passages. However, when I had to speak or write on my own, I became uncomfortable and almost panicked because I could not translate my thoughts into 'right' English. In those days, English was always existed with Japanese mental lexicon in a sense, or existed as explicit knowledge about English language in my mind. Moreover, I always felt some sort of anxiety and difficulty when I faced authentic English. There were many sentences I could not understand the meaning, even though I know all the words and grammar.

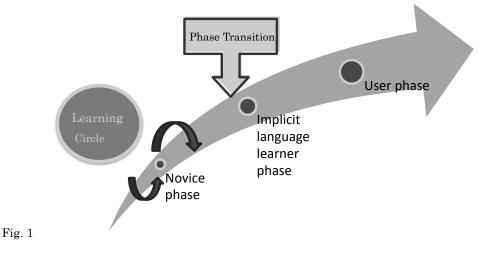
About five years ago, I was searching for an easy and enjoyable way to learn English that enable learners start from zero; for my twin daughters who could not attend school. I met '多聴 多読(EL/ER)' and thought that it must be easier if I tried this approach first and had some insights before let my children start. As books piled-up, I read aloud some very easy books to them. I was watching American TV shows and movies in English with Japanese subtitles on the TV set in the living room. Naturally, children were involved in the ER and EW. The researcher witnessed daughters' improvement; singing an English song in perfect pronunciation without looking at lyrics, asking me meaning of passages (which was not translated in the subtitles) while watching shows together. My progress seemed very slow compared to my daughters, however, now I am writing this article in English on my own.

1. Theoretical findings from learning trajectory of ILLs

The first research question was to examine the changes in strategies and materials of ILLs reached the attractor state. By exploring the trajectories of four participants, some common features and theoretical findings related to learning strategies and materials were identified by the researcher.

(1) Three phases and phase transition.

First of all, three phases were identified over the course of ILLs reach to the attractor state. I would like to call them as 'novice phase', 'implicit language learner phase' and 'user phase'. Basically, these three phases are continuum if the learner did not stop learning. Along with these three phases, phase transition and learning circle were identified.



Three phases of implicit language learning

In novice phase, learners try hard to follow instructions despite of their preference of strategies different in some cases. For instance, Masaru and Junko read GR and LR extensively, but, they do not usually read storybooks or novels even in their L1. Comparing interview data of ILLs, the reason why the ILLs in the novice phase have such characteristics is that the ILLs are assessing the approach by following the principles and instructions as much as possible, and keeping learning record enthusiastically, to predict or to examine the results of the approach by themselves. In other words, this phase can be said as trial phase, because ILLs are still holding some uncertainty about this approach and results of their effort. In novice phase, the learner is training themselves to receive L2 as it is and react L2 stimuli without interferences of L1. Successful ILLs experience phase transition and move on to the next stage.

Phase transition is one of the significant features of CDS and this is the critical point of L2 development and acquisition by using the approach of implicit language learning. Phase transition occurs gradually under the surface but it emerges on the surface unpredictable in timing. This is also the moment of emergence of new perspective on learning English in the learner and will affect to the transformation of whole system to the next stage. In the trajectory of

ILLs, phase transition occurs between novice phase and implicit language learner phase and one possible identifier is 'watching without subtitles'. I think this interpretation of transition phase might be controversial, because enjoying authentic (or nearly authentic) English videos or television programs without subtitles is considered as an activity for advanced learners.

In the implicit learner phase, ILLs become free from assessing the approach or seeking results from what they were doing by using English. Rather they simply enjoy the activity and materials that they choose based on their own curiosity or preferences. Proficiency level of materials will be gradually ignored. Theoretically, or scientifically, teachers and academics think it is important to provide learners materials equal to their proficiency level or slightly difficult one. However, in the light of CDS, language acquisition must be a non-linear. At the same time, the experience of watching difficult and authentic English video without scaffolding by subtitles can give the learner some sort of confidence and lead them to be free from any type of extrinsic motivation or 'learning'.

Finally, ILLs reach to the user phase. As the name indicates, ILLs in this phase can be said as a 'user' of English rather than a 'learner' of English. Since the implicit language learner phase and the user phase are continuum, ILLs sometimes would not notice their improvement or changes by themselves. Masaru reported that "I don't think that I would never dispose of my Japanese, so does the English language. [日本語を使わなくなるようなことはないし、それが英語も そうなってきたってだけのことであって。]". And Junko admitted that "(I) don't care either I can understand or not, but use English to get some information if necessary … [わかるわからないは 別として、日本語と区別なく情報を仕入れるために英語を使うとか…]".

(2) Learning circle.

Investigating the trajectories of ILLs from the CDS point of view, circular dynamics of learning was identified (Figure 2). These four steps of self-organizing circular dynamics starting from intuitive stage, and moving on to mental stage, physical stage, and intellectual stage.

Learning Circle: from the Trajectories of ILLs

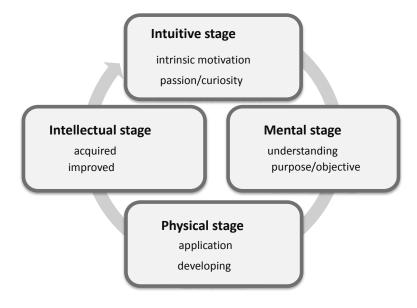


Fig. 2

For the intuitive stage, learner should have intrinsic motivation. In other words, passion, curiosity or some other intuitive sense of eagerness. Next stage is the mental stage, where the learner understand what is her/his purpose or objective drawn from the intuitive stage. Here the learner would have clear understanding or objective of learning; and how to achieve. The third step is the physical stage. This is the application or developing stage, where the learner conduct activities physically. The last step is the intellectual stage that the learner improved or acquired new skill set or ability. This stage affect to the next step, the intuitive stage 2.0. Likewise, learning circle moves round and round, changing its direction toward the attractor state of the system.

Interdependence of now and future, based on the perspectives of CDS framework, this is subtle but significant findings from those trajectories. The learning circle looks similar to cause and effect, however, this interdependence of now and future, or in this case, goal and starting point, occurs simultaneously. In other words, the successful system is always coherent from the beginning to the end. This feature of the CDS approach reminds me of the Buddhist concept of dependent origination; the point of view that sees all life forms influencing one another and inseparably connected. Buddhism also teaches the oneness of life and environment. A living being and environment exist in a relationship of "two (in phenomena) but not two (in essence) (Garrison, Hickman, & Ikeda, 2014)." If you look at the storylines of four learners, with this learning circle

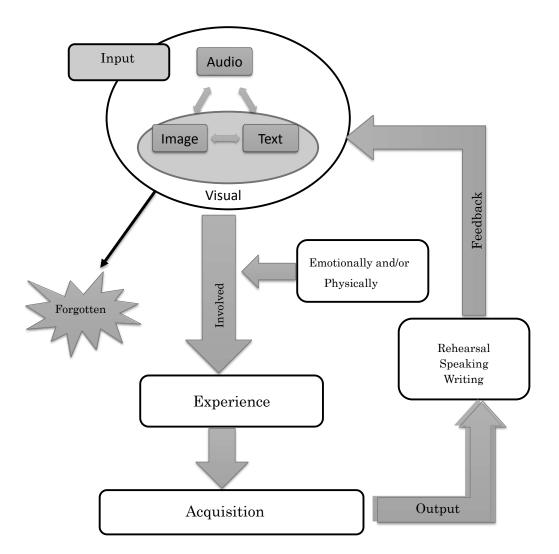
in your mind, you can see more clearly about the self-organizational feature of the system of implicit language learning.

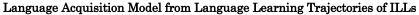
2. Self-evaluated proficiency

The second research question was asking ILLs how the self-evaluated proficiency has changed, before and after the application of implicit language learning. Since the researcher could not conduct pre- and post- tests for the participants, self-evaluated proficiency questionnaire was the only option for the researcher to obtain the participants' information related to their proficiency. Self-assessment and peer-assessment, both are regarded as quite subjective, however, from the view point of autonomy, self-assessment is the primary foundation (Brown & Abeywickrama, 2010). According to the result of questionnaire survey, question number 101 of the can-do list is asking "(I can) understand extended speech even when it is not clearly structured and when relationships are only implied and not signaled explicitly. I can understand television programs and films without too much effort." For this question, Masaru and Yurie checked full mark, but other two participants also checked high marks even though other questions were scored the lowest around this area. This seems that because of EWL without subtitles, all of them are quite capable of listening and contextual guessing.

The participants noticed their improvement after conducting the questionnaires twice, so comparing the results were interesting and fascinating moment for the researcher. Most of the participants admitted that they were bad at English at the first time survey and some of them kept saying that they were still no good at English, after the longitudinal implicit language learning. Comparing the results of two surveys, all the participants were surprised to see their improvement. What they concluded was that for the implicit language learning, language develops unconsciously and slowly, so it might be difficult to notice own improvement. Moreover, the largest differences were their perspectives on language proficiency and ability of English. "The biggest difference is that I think I can do if I really have to do it". Furthermore, the survey resulted to develop the Language Acquisition Model from the Language Learning Trajectories of ILLs (Fig.3). This model illustrates the simplified pattern of language acquisition by implicit language learning by analyzing the trajectories of ILLs as a whole. Input from materials will turn into an experience if it's attached to emotional and/or physical factor of the learner. This experience goes into brain and will be acquired by the learner. Acquired input will be tested by output (rehearsing, speaking and writing), especially, output which received feedback from others reinforce this particular lexical item by turning into input and repeat the path to the acquisition

again. Fig.3 is the model for acquiring L2 without using L1.





Note. Arrows indicate agents which reinforce, accelerate, and inter-related variables. Fig.3

IX. Conclusion

This survey was conducted to investigate adult learners who have longitudinal experiences of extensive reading and other learning strategies referred to implicit language learning. The researcher called those learners, who are calling themselves as 'tadokist', as implicit language

learners (ILLs) more holistically. The survey investigated trajectories of individual language learning of ILLs, focusing on strategies and materials. Self-evaluated English proficiency questionnaires were also conducted to elicit ILLs' perspectives on English and language learning. This can-do list type questionnaires were also tools to illustrate specific images of ILLs before they applied the implicit language learning approach, since pre- and post-test of the participants were unavailable for the research. Three semi-structured interviews were conducted to explore ILLs' trajectories together with their learning records. Transcribed interviews were analyzed by utilizing the framework of SCAT, which generated storylines and theoretical findings of implicit language learning. Materials that the learners had read by the time of the first milestone of one million words were compared and closely analyzed. As a result, the researcher identified three phases, which were considered as novice phase, implicit language learner phase and user phase along with learning circle and language acquisition model of ILLs.

Implicit language leaning is difficult to identify what is going on in the learners, however, language learning is regarded as one of the CDS and according to the findings of this study, it is sensitive to the initial condition of the learning circle. If the learner eliminates L1 from L2 learning as these ILLs of this study, the system self-organizes to the attractor state of 'user of English independent to L1'. These findings are still imperfect in many ways and future study will be needed. Especially, investigating participants under empirical environment might be necessary to establish more generalized theoretical findings for implicit language learning. Furthermore, the researcher would like to conduct more cross-disciplinary study including cognitive linguistics, psychology and neurology.

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