

The 10,000 Hour Rule and What it Means for Language Teaching

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How many times have parents of bilingual children been told how lucky they are? “Children just pick it up, don’t they?” How is this picking up taking place - through osmosis? Although it must seem that there is something in the genes, in fact, there is no magic formula, it’s just down to practice – hours and hours of practice. There is no special skill needed to become an expert at a language. According to Noam Chomsky (1965) we are predisposed to learn language, in his Innateness Hypothesis he states that even children with an IQ of 50 can acquire a language. If human beings grow up under normal conditions (not conditions of extreme deprivation), then they will always develop a language (Chomsky, 1965). Although this appears to be true for the first language, it is certainly not true that all human beings acquire a second language. The problem is how second language teachers can best recreate the conditions under which all children acquire their first language. Erikson, Prietula, & Cokely (2007) studied experts across many fields, they found that whatever the field of expertise one thing was identical; all of the experts had put in about ten years of “deliberate” practice. Ten years was translated into 10,000 hours of deliberate practice. This was later popularized by Gladwell in his book *Outliers* (2008). And more recently Syed (2011) applied this idea to sport. In this paper I would like to examine what this means for learning a second language. What is meaningful practice? How many hours of meaningful practice do you need to become fluent in a second language? With this knowledge instructors and learners can gain insight into the best way to become an expert in a second language.

What Is an Expert in a Second Language?

Native like proficiency in a second language might be construed to be an expert, but this is an unrealistic goal, and very few language learners need to attain this level of language learning. Jackson and Kaplan (1999) refer to “language proficiency” as the ability to get things done in a foreign language. Other researchers have defined proficiency as “functional bilingualism” (Archibald et al, 2006 cited in Eaton, 2012). For the majority of Japanese students of English the ability to get things done in a foreign language is a good goal.

How Many Hours Do You Need to Learn a Second Language?

Malcolm Gladwell (2008) stated in his book ‘*Outliers*’ that 10,000 hours are needed to become a specialist at anything. Gladwell was actually using the 10,000 hour rule to show how some people succeed in becoming extraordinary, what he calls an outlier. Gladwell hypothesizes that the huge number of hours of practice that Bill Gates put in as a child was what made him a genius computer programmer. In his book ‘*Bounce*’ (2011) Matthew Syed says that 10,000 hours of meaningful practice are needed to become an expert athlete.

It is not realistic to say that everyone needs 10,000 hours to become an expert language learner, it is also clear that in language learning students have different goals and gaining native speaker like second language ability is not realistic for most learners.

There are many variables, such as distance from the native language, age and language aptitude. In terms of foreign language learning Jackson and Kaplan’s definition of proficiency as “The ability to get things done” (1999, p. 72) is a good

one, in this way it is possible that our students do not need 10,000 hours of practice to become experts. Jackson and Kaplan (1999) estimated that with native English language speakers in The Foreign Service Institute it could take as little as 600 hours to become proficient in languages closely cognate with English, such as French and German, but exceptionally difficult languages such as Japanese and Chinese could take 2200 hours. It should be emphasized that the students in The Foreign Service Institute are all highly motivated with prior knowledge of more than one language (Jackson & Kaplan, 1999). I would like to show that in language learning anyone who practices enough will become proficient. Archibald and a team of researchers at the University of Calgary found that “Learning a second language for 95 hours per year for six years will not lead to functional bilingualism and fluency in the second language. Expectations must be realistic.” (Archibald et al., 2007 cited in Eaton, 2011 p. 4) This is roughly equivalent to Japanese Junior and Senior High School students. Although it is probable that Japanese learners of English do not need as much as 10,000 hours, they need more than 2000 and a lot more than the 720 hours that they receive in Junior and Senior High School at present, even if we assume that the time spent in the classroom is meaningful input.

It is very difficult to estimate how much language practice a child gets in their native language, and this will vary greatly depending on their environment and upbringing. For ease of calculation, let’s say that a baby spends about ten hours a day listening to a language, and trying to produce it. In a year they would spend 3650 hours practicing a language. To get to 10,000 hours of practice would take about 3 years. The majority of children by the age of three are communicating quite fluently with caregivers and friends in their first language. They have also internalized grammatical structures and are creating original language, not just repeating what their caregivers have said. What is more, they accomplished all this whilst learning a plethora of motor skills from walking to catching a ball.

When talking about learning Chinese, Ollie Linge (2012) states that we cannot say that someone has been learning a language for six years. The number of years is irrelevant, we must measure the number of hours of language study. If you are going to a language class once a week, you can expect it to take about two hundred years to get 10,000 hours of practice. It is not only hours, but also frequency of study. People remember things better the following day than one week later, so that intensive study is better than once a week. When people bemoan the fact that they are studying a foreign language, but they are not making much headway, the answer is simple math, they are getting there, just very slowly.

What is Meaningful Practice?

The second argument that Syed (2011) makes is that it is not just any practice, but ‘meaningful practice’, that makes the difference. Meaningful practice is when you are constantly pushing yourself to improve. Syed (2011) uses the example of Olympic athletes training, constantly trying to run faster or hit the ball harder. On the other hand he uses the example of driving a car as non-meaningful practice. Many people have spent 10,000 hours driving a car, but at some point they stop getting any better, this is because although they are driving, it is not meaningful practice, in that they are not trying to get any better. With young children in their first language ‘meaningful practice’ is made meaningful, by the fact that children really want to understand and

to communicate their desires. Very quickly this interaction becomes more complex with the children negotiating with their caregivers to get what they want. The interaction is meaningful and endlessly varied. Children will start a sentence not really knowing how they will finish it. In struggling to do better we improve in everything especially language. In a classroom environment the activities are carefully controlled so that students can practice structures that they have already learned, but what they really need is to be pushed to produce more than they believe possible. Jackson and Kaplan found that, "There is no one right way to teach (or learn) languages, nor is there a single right syllabus" (1999, p. 75). Spolsky (1989) states that different ways of teaching and activities work with different groups of students and students' needs change over time. Thus the teaching methodology is probably not the deciding factor in whether or not students become fluent in a foreign language.

In 2013 Japan was ranked 22nd out of 54 countries on English proficiency, (EF EPI, 2012) this is one of the lowest rankings among industrialized countries and very poor considering the amount of money spent on language education in Japan. The biggest difference between Japan and the five top ranked countries (Sweden, Finland, Norway, Denmark and the Netherlands) is that in those countries nearly all television programs are shown in the original language, which is usually English. Much of the reading is also done in English rather than translate into their own language. In this way Scandinavians and the Dutch get far more input than purely classroom time. Not only that, but the input they are receiving is meaningful, they want to understand what they are reading and they want to enjoy their favorite television shows.

Problems with Japan's English Education

Most children in public Junior High School study English for about three hours a week, which adds up to 360 hours over 3 years. High School is a similar amount, so by the end of High school we can see that students have studied English for about 720 hours. This is woefully short of the 2200 hours necessary to get things done in a foreign language (Jackson & Kaplan, 1999, p. 72), and the equivalent amount of input of a 3-month-old baby! Even if you assume that they spend time at home studying English, it will not be near the necessary amount of hours. When looking at these numbers it is no longer surprising that there are not many people who become fluent in a foreign language by studying at school, it is a miracle that there are any at all! Some students do become proficient, but they have presumably spent many hours studying on their own at home or through extra-curricula English classes.

When we start looking at meaningful practice, we see that this is also lacking. The vast majority of Junior High School and High School teachers are still using a form of grammar translation, which provides little motivation or negotiation. Compared to a child trying to persuade their mother to let them play in the park, students have no desire or need to communicate. Most classes are made up of repetition and grammar explanations given in Japanese.

Krashen (1982) said that for students to acquire a language that the input needs to be at a level of $i+1$, which means that the input should be slightly more difficult than the students can currently understand. The curriculum in Japanese Junior and Senior High Schools advances much too quickly for the majority of students, making the input too difficult for most students, who lose interest and stop studying.

Solutions

The situation seems hopeless. The vast majority of English teachers enthusiastically try to teach students and prepare effective materials, but if at the end of it all students will have less than one tenth of the input needed to become proficient, what hope is there? Perhaps the language classroom should be regarded as an area in which students can be introduced to new concepts, explicit grammar teaching and error correction, but the bulk of their language practice must be done outside the classroom. Ellis (1991 cited in Ellis, 1994) found that students learnt language rules and were more successful using them when taught explicitly. A combination of explicit teaching and implicit learning is probably most effective. As educators we need to find ways to encourage and motivate our students to study outside the classroom, rather than focusing on classroom activities. Autonomous learning is becoming increasingly popular in universities, but it needs to be pushed more. Some teachers do not give homework due to the extra work it will create for the teacher, but without studying outside the classroom, any language learning efforts will be slow and inevitably unsuccessful. Learning a language needs to be viewed more like learning a musical instrument than studying a subject. Without practice you cannot become proficient. Teachers must encourage this practice, it is a rare case that anyone, let alone a child will study without encouragement and some sort of external motivation.

Autonomous Learning and Self-Access Centers

In the last few decades more and more emphasis has been placed on autonomous language learning. To aid autonomous learning many universities have set up self-access learning centres. Dincer, Yesil Yurt, and Goksu (2010) found that classrooms have rules that sometimes do not match with student preferences. By allowing students to study autonomously, students can find their own best learning style, although learners need some help to learn autonomously, which is where self-access learning centres are important as they give these students opportunities for autonomous learning. This autonomous learning can take many forms, but the most common are extensive reading, extensive listening and online practice.

It has long been shown by the work of various researchers that extensive reading programs can make a huge difference in the proficiency of language learners (Cutting, 2011). In a study of university students by Williams (2008) it was found that students who participated in an extensive reading program for a year gained on average 33.5 points on the TOEFL test. It is hard to know how many hours of extensive reading students did, but we can certainly see that the gains are significant. If a student is reading a graded reader for 30 minutes everyday this means they can get about 180 hours in a year. If this were done over six years of Junior High School and High School the amount of meaningful input would double. The reason I call this meaningful input is because of the nature of reading, the effort to understand the ideas of the story and put your own interpretations on it make the experience meaningful. It is probably not as good as the negotiation that takes place between a child and caregiver, but it is a definite improvement on translation.

Recently there have been more and more proponents of extensive listening. I would say that this has the same advantages as extensive reading, although there is not as much quantitative evidence for extensive listening. More time spent with meaningful

practice the better you will get. In the literature this has focused on students listening to stories, often audio recordings of graded readers, I would like to suggest that watching television could also be a valuable form of input. Listening to stories for 30 minutes each day also leads to about 1000 hours of meaningful practice during the Junior High School and High School years. A close friend of mine with two Japanese parents is very fluent at English despite having never lived in an English speaking country for more than a few weeks. She told me that as a child her father bought her and her sister some Disney videos. These were from the United States and were only in English. He said that if they wanted to watch television they would have to watch these English videos. The children loved the videos and would rather watch them in English than not at all, so spent hours and hours of extensive listening. By High School she and her sister were winning English speech contests. The University of Michigan Health System (2012) estimated that children ages 6-11 spend about 28 hours a week in front of the television. I am not an advocate of children spending hours in front of the television, but if they are doing it anyway, could we not encourage some of it in a foreign language and use it to their advantage?

Study Abroad

Studying abroad is a very effective way to get many hours of foreign language practice. Freed (1995) stated that there are numerous versions of studying abroad, with or without formal language tuition. Other important factors are whether the students spend time with fellow L1 speakers, and whether students stay with a host family, but for the purpose of this article I am just going to assume that students have access to English for the entirety of their period abroad. Studying abroad will give you a possible fifteen hours of practice a day, including class, chatting to friends and communicating with your host family. One month in a homestay program could be the equivalent of your entire time at Junior High School. This is also super powered input as it contains all the negotiation and motivation that a young child feels when trying to communicate with their caregiver. As Swain (1985) argues “production will aid acquisition only when the learner is pushed.” Swinton (1983), reported a 52.3 (12%) total point gain on the TOEFL test for students enrolled for a semester (i.e., approximately 15 weeks) in an intensive English program at San Francisco State University. Although Ellis and Tanaka (2003) found that the average TOEFL improvement in a 15-week study abroad program was only 18.55 points on the TOEFL test, they put this down to students staying in monolingual settings and inevitably not practicing English as much outside the classroom. This is still a significant improvement, and it supports my hypothesis that it is hours of practice that is the deciding factor in students’ language improvement. The students who were not practicing English outside the classroom did not improve as much on their TOEFL scores. This also emphasizes the need to put students in a multilingual setting when they study abroad. Students need to be placed individually in homestay families with maximum opportunities for meaningful English practice. Sending students abroad to study in monolingual classes and stay together in dormitories will result in very little more than studying in an intensive English course in Japan.

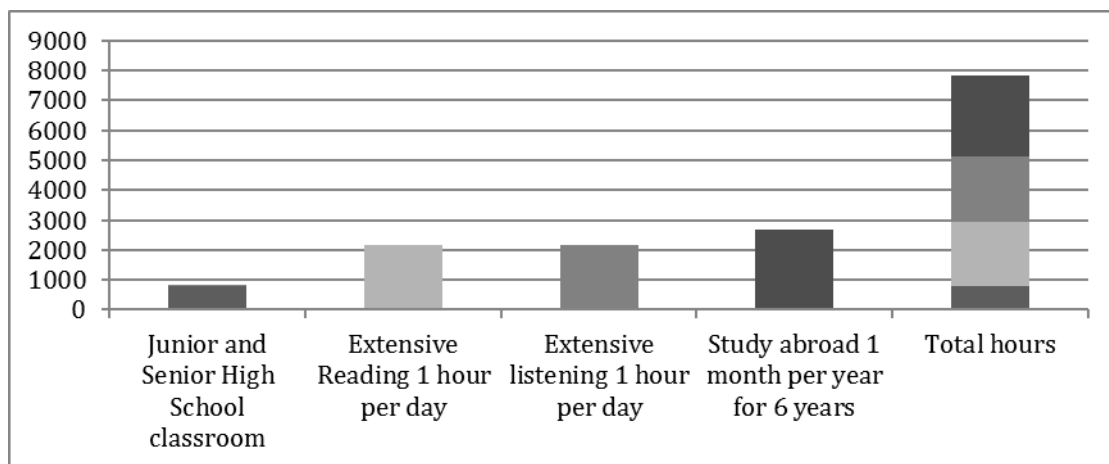
I have listed three of the most common and easily accessible ways to spend many hours practicing English. There are many other opportunities, especially on the Internet, using second life and other virtual environments, playing online English computer games and just surfing the web in English. Whatever motivates students to

practice for copious hours and in a meaningful way will help students to gain the necessary practice to become proficient at English.

How Many Hours of Practice Do You Need?

In the following chart I will show a general idea of how many hours of practice is necessary in Extensive Listening, Extensive Reading and Study Abroad to achieve 10,000 hours. By doing this I hope to demonstrate, just how much continued, long term and extensive practice is needed in order to become proficient. There are no short cuts, but including all or at least some of these activities with your students will have a significant effect.

Hours of study in Junior and Senior High school to reach over 7500-hours of study



Conclusion

I acknowledge that there are many other factors that affect language acquisition, for example age and language aptitude, but within the constraints of the Japanese education system there are many things that teachers could do to help with language acquisition. There are many excellent teachers and teaching methodologies, but what needs emphasizing is that rather than focusing on the style of teaching, we need to get the hours in. The number of hours that Japanese school children study English is not nearly enough for them to become proficient. If we want the level of English ability to improve in Japan, students need to spend far more hours in meaningful practice; in the classroom, extensive reading, and extensive listening or study abroad programs. I certainly believe that a combination of formal and informal study is the ideal. Although including all these aspects will not necessarily bring you to the level of native speakers, it must bring you much closer. Practice is the key to proficiency in everything including language learning.

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