

An International Success Story: What We Know About Early Language Learning

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Good morning. I am honored to have been invited to address you today. I am so pleased to be part of a conference that will focus on the importance of learning other languages. In my own country, the United States, it is often very difficult to get the public and educators engaged in discussions about foreign language learning, particularly at an early age.

This talk is about the future, about making sure that today's young students are prepared for their civic, social, economic, and political responsibilities when they assume their roles in adult society. I am sure that here in Japan, as in the United States, parents and educators are concerned about many aspects of the school curriculum. They believe – quite correctly I might add – that reading, mathematics and science are very important to our children's future. However, the ability to have a useable level of proficiency in more than one language is exceedingly important as well.

Why should we worry about foreign languages and our children's futures? Why does language learning matter? In my talk this morning, I hope to address the following questions:

- Why learn other languages?
- Why start learning other languages at an early age?
- What are some myths about early language learning?
- What factors make a difference in language learning?

Turning to the first question, I'd like to discuss why learning another language is important for our children. It is almost a cliché to state the obvious: education today is preparation for the world of tomorrow. What will the world of tomorrow be like when today's students are running it?

We may not know many details about the world of the future, but we can be certain that today's students will live and work in a world quite different from our own. We have all read about the changes to our society as we move from an industrial-based economy to an information and service-based economy.

Many of the lifestyle advantages we take for granted today didn't even exist 30 years ago. Our students now live in a world nothing like the one we grew up and have worked in.

As an American, it feels awkward for me to be advocating that students in Japan should learn my

language. In reality, I believe that students should learn many languages, and that English may or may not enjoy its position as a major international language when today's students are tomorrow's leaders and workers.

In many countries worldwide, people currently see English as THE language of the world. They believe English is the key to any success in adulthood that will involve going beyond their own national borders. For today, at least, English plays a central role in business, medicine, and science. It can enhance one's personal enjoyment of movies, music, or travel. In some countries, such as here in Japan, entrance to university requires proficiency in English.

Is English the most important language to know? Which languages are worth knowing? We can't predict the future. While English may be an important language today, what will be the languages of tomorrow? Because we cannot know what the future holds, we should not assume that English is the only language students will ever need to know. Worldwide, we should be emphasizing that students will need to learn several languages, recognizing that learning additional languages becomes easier once you have gained strong skills in at least one language more than your mother tongue.

Whether you live in Japan, America, or Europe (or anywhere else for that matter), it is becoming increasingly clear that languages are vital to a nation's economic security. As globalization increases, business is worldwide, not local. People who work in the business world are having more and more contacts overseas. Language and cultural skills are keys to gaining access to foreign markets, to an open trading system, to the development of effective export strategies, and to ensuring a steady supply of energy to fuel our nations.

The global economy is no longer just about selling things. This new global economy presents serious linguistic challenges for businesses as they move from a manufacturing-based economy to a service-based economy. For example, in the US, the sale of services now generates the majority of our Gross National Product and represents the fastest-growing sector of international trade. It should be obvious that selling services is more likely to be successful when those who are purchasing services feel understood by (and understand) the service provider.

The world has moved to an information based society, in which information may be considered a valuable national resource. Economic success and security depend on the ability to understand information about the current status of or coming changes in foreign economies, about research and development efforts elsewhere.

In today's world, governments and businesses need language-proficient personnel in fields as diverse as environmental protection, space exploration, postal services, the patent and trademark services, and public health.

Realistically speaking, it is unlikely that every one of today's students will find a future in international commerce, humanitarian aid, or national security – but it is also realistic to acknowledge that we can't predict what today's young learners will be doing tomorrow. Because we cannot predict the future, the best we can do is prepare our students as well as we can for it. And that preparation should include foreign language learning from an early age.

Why should students begin learning languages from an early age? I would like to offer three reasons why starting language learning while in primary school is important:

- time
- research on brain development
- research on the benefits of early language learning,

The first reason for starting early is time. Simply put, learning languages takes a long time, especially if we want students to learn a language well enough to use it in the real world. If students begin at age 5, they obviously have a long academic career in which to gain the skills they need. In comparison, when students begin at age 13 they have lost eight precious years of opportunities to become proficient. I will return to the issue of time later in this talk when I address what factors make a difference in language performance.

Time – or I should say timing – is important for another reason. There is accumulating evidence that learning additional languages – particularly from an early age – has cognitive and academic benefits. Students have shown that mental flexibility, the ability to shift easily between symbol systems – such as mathematics and literacy –, improved abilities in divergent thinking, meta-linguistic awareness, and occasionally, higher scores on measures of verbal intelligence, are correlated with early language learning.

Recent brain research has provided many insights into the effects of language learning, and bilingualism, on the brain. Research on the development of young children's brains suggests that the brain is pre-wired for language learning. All normal children learn their first language with relative ease and little direct instruction. The wiring and mechanisms in the brain that are used for first language development are also available to young second language learners. While it is true that it is possible to learn another language when you are older, the parts of the brain and the mechanisms involved in learning languages when older are different – not the same ones that facilitate language learning in the young. A study just published in the last few months found the "people who speak two languages have more grey matter in the language region of the brain. The earlier they learned the language, the larger the grey area. Since grey matter consists of brain cells, people who learn languages from a young age may either develop increase the number of brain cells or the size of their brain cells. The researchers have speculated that their findings may help to

explain why children seem to be better language learners than adults.

Other research has examined the effects of second language learning and bilingualism on cognitive functioning. Some children learn both languages at home and are bilingual at an early age. Other children become bilingual by learning a new language either in school or in information settings.

Researchers have found that even as children begin to gain skills in a second language, they are also gaining cognitive benefits. Studies have shown advantages for bilingual children in the areas of mental flexibility, creative thinking, problem solving, and cognitive control processes. Stated more simply, this evidence suggests that bilingual children are superior to monolingual children on a number of factors involved with mental processing.

The researchers have also found long-term advantages for bilingualism. The same researchers who reported that bilingualism is associated with more effective controlled processing in children report that this bilingual advantage persists into middle age, showing that bilingualism can offset some of the negative effects of aging on cognitive control in older adults.

As an older, bilingual adult, I think this is very good news. As a parent, I find the cognitive benefits of being proficient in two languages even more compelling.

Clearly, regardless of future endeavors, every child can benefit now from starting to learn a language early and continuing through schooling. That's because language learning, simply put, is good for children. This information is especially important because there is a common belief – an incorrect common belief – that children can get confused if they try to learn a foreign language while they are still learning their mother tongue.

In fact, researchers have looked very carefully at the question of bilingual children, and the findings are fairly conclusive: children do not get confused. In fact, researchers have found that even children as young as two years old have no difficulty keeping the languages separate.

In addition to finding cognitive advantages for early language learners, researchers have also studied the effects on students' academic achievement. Academically, there are benefits as well. These academic outcomes might surprise some educators because language instruction may require taking time out of the school day, time that would have been used for teaching subjects such as mother tongue literacy or mathematics. The good news is that studies have consistently shown that there are no negative effects on student performance in literacy, language, or mathematics when schools 'take time out' of the day for foreign language instruction.

Some studies have found that young students who are learning a foreign language in school actually outperform peers who are not studying foreign language on school tests. Some of the studies that

have looked at student performance in reading, language, and mathematics have found that even in mathematics, students studying a foreign language learned more than students who were not.

Most importantly, for those who advocate an early start to language learning, there is one important fact: even when there is no difference in academic achievement between students studying language and those who are not, the language learners learned more simply because they gained foreign language skills in addition to everything else the comparison group also learned.

These students contradict the beliefs of those who worry that students will not learn enough, or learn other subjects well, if time is devoted to foreign language study.

I would like to turn now to the fourth question I posed at the beginning of my talk: What matters in language learning? If schools are to invest their limited resources of time and money to teach foreign languages, then schools also should ensure that their programs are aligned with those features research has shown to make a difference in language learning. Some of these factors are:

- Time
- Intensity
- Interaction
- Authentic Tasks
- Cross cultural interaction

Time: Learning a language takes a long time. Students need time to gain a level of proficiency that allows them to communicate beyond the superficial: more than greetings and polite requests. They need sufficient skills to understand what people mean by what they say, what lies beneath the words. They need to know more than how to say 'thank you,' but also when it's appropriate or not; the ways in which you say it depending on whom you're thanking and for what. This is what really matters when you try to communicate across cultures. It requires far more skills than most students normally attain in our current approaches because our current approaches are simply too short.

Effective and useful communication skills take time to develop. Students cannot begin in high school, study languages for two years, and be able to use languages for real-life purposes. We would not dream of starting study of mathematics or science in high school, expect students to study these subjects for just a year or two, and then expect our students to be engineers, or to be successful in a technologically literate society. The investment of time that schools make in language learning should be consistent with the time invested in mathematics and science.

While time is important in order to give students a long period over which to acquire language proficiency, time, is also important in terms of contact hours daily or weekly. If class meetings are too short or too infrequent, students are limited in what they learn and what they remember from

one class to the next. As a result, students do not make noticeable progress. Students cannot learn enough or remember enough from one year to the next, so teachers feel compelled to start all over again each year. Too often, students find themselves repeatedly learning the same beginning level content. While language learning experiences with limited contact time can be valuable, their value is increased exponentially when attention is paid to continuity of learning and continued progress toward language proficiency. Good use of instructional time is critical, and every precious minute must be exploited to mine its potential to contribute to language development.

Intensity is another variable that affects how well language is learned. Intensity is produced by engaging tasks that motivate learners to expend effort and persist in challenging tasks. As everyone who has learned a foreign language knows, effort and persistence are required to learn a new language.

If motivation, engagement, and persistence are important, than learning languages at a young age may be more effective than waiting until students are older. Younger learners tend to be more motivated and less inhibited; the basics of language are not as boring to young children as to older learners (for example, naming colors, counting to 100 etc.) Although language teaching has to be more than songs and games, songs and games not only provide motivation and engagement to young learners, but they also can be a bridge from recitation to personal communication. Teachers must see how songs and games are related to what we know about second language learning, and lead students from these activities to applying the language used in songs and games to language use for communication purposes.

Communicating your own ideas is, in itself, motivating and interesting. Successful teachers engage students in meaningful, motivating, purposeful tasks that allow them to use language as a tool for understanding others and for communicating their own ideas. Whether instruction is delivered by teachers or using technology, language instruction that fosters active cognitive engagement in learning tasks that are inherently interesting to students is a prime pre-requisite for language growth.

One approach that is increasingly popular in the US is content-based language learning. In this approach, subject matter drawn from the school curriculum may be delivered through the medium of the foreign language, reinforced through the language, or practiced in the language. For example, immersion programs teach half or more of the school day using the language as the medium of instruction. In total immersion (full day), students even learn to read first in the target language and subsequently in their mother tongue. Immersion teachers are regular elementary school teachers who teach in the same curriculum as other teachers, they just don't do it in English. Interestingly enough, data on the performance of immersion students indicates that they equal or surpass their peers on standardized tests, even when they have learned subjects like mathematics entirely in another language.

Another approach to content-based instruction is to use the foreign language instead of the mother tongue to teach one or two subjects. Some schools have offered art, music, and/or physical education in the foreign language; in other schools, all science is taught only in the foreign language. These programs have found ways to increase student contact time with minimal decreases in the amount of time allocated for other subjects in the curriculum.

Content-based instruction is more easily implemented in the early years of schooling. Since the school curriculum relies less on abstract language and literacy in the early grades, it is easier to provide meaningful language use through content integration to younger students.

The next factor I would like to address is 'interaction.' Interaction has been shown by research to be a vital part of language development. Students need many, frequent, and well structured opportunities to use the language they are learning. They need extensive opportunities to hear (or read) language used by others, and to use language with others in meaningful and purposeful ways. They need to be engaged in understanding others and making themselves understood. In this respect, younger learners do not seem to differ from older learners.

Authentic tasks are another variable that affects language learning. Language has to be real and make sense to learners. And, students need real-life reasons to use language as a tool for communication. They need to have real-life reasons to want to understand what is being said to them and to make themselves understood; they need to use language to communicate about topics that are engaging and motivating; they need to use language with meaning and for a purpose.

Traditional textbooks have little relevance to many adolescent's lives. I remember observing a French class in which 13 year old students were working in pairs, asking and answering questions. When I listened carefully, I found that they were asking questions such as "did you know my grandson?" Although these students were interacting, there were no personal meanings or purpose to their interaction.

Textbook exercises such as the one I just describe focus on grammar and very rarely have personal meaning for students. Traditional grammar exercises lack purpose and authenticity. Is it of little surprise, then, that traditional approaches to grammar instruction have shown little benefit to language learners?

For young students, embedding structured practice that provides a focus on form and meaning seems to yield much more positive results.

Earlier, I spoke about content-based instruction. Another advantage of content-based approaches is that integrating content from the school curriculum is real for young learners and interesting as well. Mini-grammar lessons followed by content-based foreign language activities can provide

meaningful, purposeful language use while also ensuring structured practice. For example, students can practice the past tense of verbs by creating and labeling timelines with significant events in history. Comparative adjectives such as *closer/father/closest* or *smaller/larger/largest* are easily incorporated into a discussion of the planets in the Solar System. Here again, teachers need to be mindful of the ways in which activities are structured so that the target forms are elicited, and so that students must attend to both meaning and form to get their ideas across.

Perfect grammar and an extensive vocabulary help to communicate, but they are insufficient. That is because cultural understanding and skills in knowing how and what to say to whom are at the heart of learning a language. You can't simply use foreign language vocabulary and grammar to substitute for your mother tongue that's in your head.

Culture is the playing field on which language use takes place. It determines the rules of communicating. You need to understand how culture shapes how what you say is understood by the people who hear you, and how the way they express themselves is intended to be understood. Culture explains what you may say, to whom, when, and why. Students learn this best through direct contact with native speakers, either face-to-face or indirectly through virtual media.

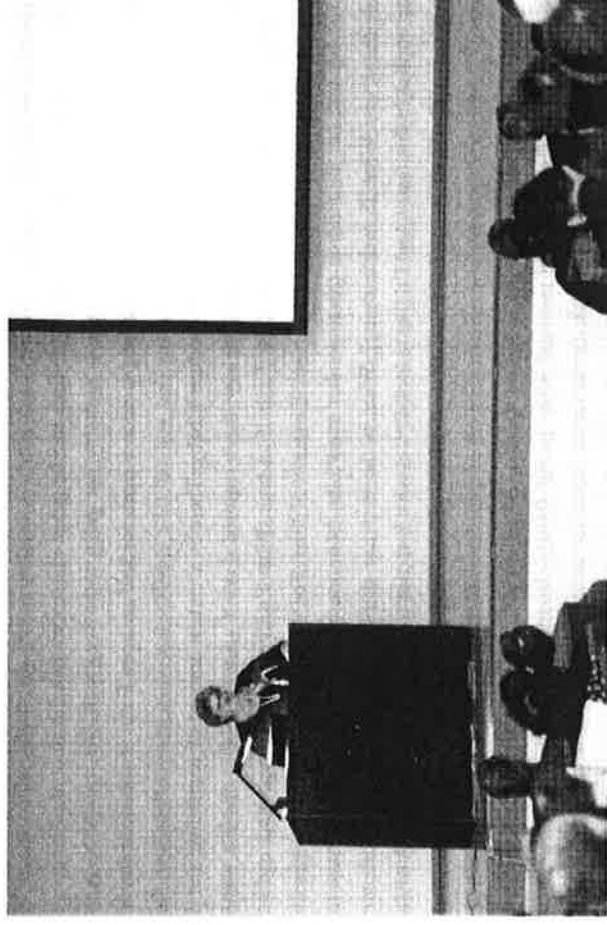
As a teacher, I spent a great deal of time teaching my students vocabulary and grammar. The first time I traveled I discovered something surprising. I found that if I made a grammar mistake – even a very serious grammar mistake – it did not seem to cause a problem with the people I was speaking with. What I discovered, on the other hand, was that even a very small cultural error could cause very serious problems for me. It made me realize that if you want to communicate with people, to be successful in getting what you need or want, to be effective in establishing relationship with native speakers of the language you are learning, you need to be very knowledgeable and skilled in cultural understanding. You need to be able to step back, observe what you are experiencing, and reflect thoughtfully on your experiences so that you can gain a deeper understanding.

Skills in observing and analyzing other cultures don't just come automatically. Some of them have to be taught. Students need to have knowledge of their own culture and of the target culture. We need to teach them the skill of interpreting texts, documents, and interactions in light of their existing knowledge and attitudes; we should teach them the skill of learning new behaviors, beliefs, and values, and the ability to use knowledge and skills in successful interactions.

As contacts across linguistic, cultural, and national boundaries become increasingly common, our students will need these skills. They will need to interact across cultures in acceptable ways. These contacts will be enhanced if we equip our students with skills to do so. But, more importantly, students will also need to learn how to learn. Skills in cross cultural observation, analysis, and interaction will enable them to continue to learn throughout life as they engage in novel cross-cultural encounters whether domestically or abroad.

I would like to conclude these remarks by emphasizing how important it is for us as educators to prepare all our students for a future that is sure to require the ability to communicate successfully across linguistic, cultural and national borders. That world will be different from the one we have experienced in the past, the one we are living in today, and different from the one that we imagine for tomorrow.

It has been said that the world of the future will not simply be different from what we imagine; the world of the future will be different from anything we can imagine. We can be fairly sure, however, that the students who sit in our classrooms today will be the elected officials, businessmen, teachers, physicians, architects, technicians, and skilled workers of tomorrow. They will meet many more people in more places than most of us sitting here today ever predicted we would. The more our students know about how to interact successfully with other people from – or in – other places, the more successful their lives and their world will be.



peace in this world. So I wish you all a successful conference, a safe trip home, a successful teaching career, and for those of you who I will never see you again, may the rest of your life will be very nice. Thank you.