

CRAFTY

Polyglots

PODCAST

In this episode of The Crafty Polyglot, Dr. Felicia Eybl welcomes Dr. Bernd Nuss, a highly experienced language immersion educator and researcher whose work spans multiple countries, languages, and educational systems. With deep expertise in bilingual and immersion education, curriculum design, literacy assessment, and language acquisition, Dr. Nuss brings a thoughtful, research-based perspective to some of the most important questions facing immersion programs today.

This conversation is especially valuable for educators, school leaders, and families who want to better understand how immersion education supports literacy, cognitive growth, and intercultural competence. From classroom practice to long-term research priorities, Dr. Nuss offers insight into what makes immersion effective and what still needs to be developed to strengthen the future of multilingual education.

Podcast Name: The Crafty Polyglots PODCAST

Host: Felicia Eybl (Horse Education Group)

Guest: Dr. Bernd Nuss

Recording Date: May 12, 2026 at 1:15 pm

Location: Studio

SCRIPT

Felicia Eybl

Hello, I am Dr. Felicia Eybl, moderator of The Crafty Polyglot Podcast. Today I would like to welcome Dr. Bernd Nuss to our Crafty Polyglot Podcast.

Dr. Nuss is a language immersion educator and researcher with vast experience in bilingual and immersion education. His teaching experience spans the globe, having taught in Germany, Canada, England, Brazil, Mexico, Honduras, Nicaragua, Turkey, and the United States in both private and public, local and international schools.

He has developed programs and created standards and curricula for university and government agencies. His knowledge of effective strategies to assess literacy and language acquisition in elementary students is impressive. He continues to participate in literacy research with the Werklund School of Education at the University of Calgary.

Welcome to The Crafty Polyglot, Dr. Nuss.

Bernd Nuss

Thank you very much. It is a pleasure being here. I am honored.

Felicia Eybl

Thank you. Tell us about how you personally became a strong proponent of dual language immersion.

Bernd Nuss

You already mentioned a lot of my background. I was actually dropped into language teaching and language instruction, and later into language immersion, without even knowing it. For many years, I was not aware of what I was doing.

CRAFTY

Polyglots

PODCAST

Throughout my career, I taught in many different programs. Currently, I am still a member of a near-full-immersion program, but I also taught in 50-50 models. A very interesting experience was a true dual immersion program, which I also want to explain a little bit.

It was in Brazil. I taught German within a German-Portuguese model, and the student population there was quite unique. The setup of the program was also very unique because we did not separate the subject areas by different languages.

Instead, the subject areas were actually shared by the same languages. That required a lot of coordination between the teachers and also the curriculum. So that was a very interesting experience.

Overall, I experienced that in all of the different immersion programs I have worked in, there was never really one single trait that defined them all. All of the programs were actually entirely different.

They were different in many categories. For instance, obviously the language that is being taught makes a difference. It matters whether you teach in one language and the native language is quite similar, or whether there is not such proximity. That has an impact on translanguaging skills and other areas.

The linguistic background of the students is also very important. Taking that example from Brazil, the students there were at a very high level in Portuguese and in German because many of the Portuguese-speaking children still had some heritage German within their families.

At the same time, there was also a German company that brought students into that small Brazilian place. So both language levels were extremely high, both German and Portuguese.

I mention that because there was a change over time. That German company decided to pull out all of its German workers, and this whole model of perfect dual language immersion morphed into a one-way immersion program.

So I really think it is very important to be aware that language immersion programs are quite different in their structure, and therefore the organization of those language models also has to be different.

There are differences in how vocabulary is developed, how academic language develops, how grammar grows to a certain degree, and how literacy instruction can be completely different. Just think about teaching both German literacy and Portuguese literacy at the same time. That takes some coordination, as do transfer between languages and certain assessments.

Consequently, the different immersion models require different instructional strategies.

But what really caught me, and essentially trapped me in that immersion world, is the important outcome that was the same for all the different models I had experienced.

Students in immersion programs always reach or exceed the levels of literacy, not only in the target language, but also in their native language or the language that is being spoken in that location. But not only that, it also transfers and translates into mathematics skills and reasoning skills.

There is a cognitive flexibility that is not being experienced anywhere else, not even mentioning intercultural competence.

CRAFTY

Polyglots

PODCAST

One factor I also want to point out, which is not mentioned in the literature so frequently, is really the personality building of students. We get a lot of feedback from international support and from language experts who come from governments and provide feedback about the language skills, but also about the character of those students.

The personality of our students is really outstanding. They are not afraid to communicate with teachers, to reach out, and to have an outlook on their lives and their chances that is very mature for their age.

Felicia Eybl

Okay, great. Your research focuses on language and literacy in elementary students. How does immersion teaching impact student literacy?

Bernd Nuss

For that question, I have to say I was also a facilitator for a long time. In that function, I was developing an assessment tool for early literacy that is also being used in North Carolina. I could develop the French and German translations.

For that, I collected about 50,000 data points over about five years. So we do have a longitudinal study comparing German and French literacy development in comparison to English.

The research findings, just giving you the overall gist, were these: the foundational reading skills transferred perfectly across the languages. However, they developed at different paces, and that is very much due to the language itself.

I will come to that later as well, but accuracy versus fluency does have a different level of importance in literacy education.

Looking at reading comprehension, we did not really see any major differences as long as enough language in the target language was available. Reading comprehension developed exactly as in the English area.

The higher-order reading strategies also transferred very naturally because those are done in the same way. There is no difference in how to build an argument in either language.

Overall, I have to say that by grade three, the immersion students performed at exactly the same levels as the English students. That does not refer only to the target language in which they were initially measured, but also in English.

I need to point out that these students did not have any formal English instruction until third grade in that particular model. So that is quite an amazing outcome.

The advantages are quite obvious. Students gain an additional language while they are receiving the regular curriculum instruction. They have very strong decoding skills because essentially they do it in two languages and automatically engage in translanguaging, even without being aware of it.

So this metalinguistic awareness is part of that. They develop flexible reading strategies by bringing both languages together. The academic language development is really advanced, as is the cognitive flexibility.

Felicia Eybl

That is great. How is literacy development in English different from other alphabetic languages, and what implications does that have for a language program?

Bernd Nuss

CRAFTY

Polyglots

PODCAST

I think that is a very important question because school administrators and also district administrators need to be aware that literacy instruction in other languages works in different ways.

I just want to briefly recap how English literacy instruction typically takes place. First, you learn the alphabet with all the letter sounds, and then you build up, essentially from the bottom up, all the foundational reading skills, and they build on one another. This is how students develop their reading skills across the alphabet.

English is also quite unique because it has many short words, many sight words that can be used, and the spelling rules are a little more complicated. But one also has to say that English has a very simple morphology compared to other languages.

Thinking about verbs, we only have the endings -ed, -s, and -ing, and that is all. So it makes the language very predictable as you are reading along.

For German, French, and Spanish, the situation is a little bit different. The foundational skills are all taught and practiced at the same time. So you start with a certain set of letters, only two or three letters in the first lesson, but you introduce all the foundational skills at the same time.

The reason is that in those languages, you also try to implement the writing piece as you do the reading piece. So the development is not really the bottom-up order of the curriculum, but it is actually more like a horizontal way in which you extend the alphabet while using all the foundational skills at the same time.

One huge difference between all those immersion languages compared to English is that they do have a vast inflectional richness that makes the reading process quite complicated. In Spanish, for example, we have more than 70 different verb endings compared to the few we have in English.

This rich morphology also leads to, on average, longer words overall, which makes the decoding process more cumbersome. There are also very few true sight words in German. We do not even have regular articles in the way English does, because even those are subject to declensions.

So students must decode every single word from beginning to end. That predictive moment you have in English is not really there.

The instructional implications from that are that reading accuracy is actually much more important than reading fluency. The skills of contextual inferencing and anticipating structural patterns are also affected, first because of the language, but also because the language skills and knowledge are not yet fully available.

These children cannot really anticipate what might be a proper word ending. So the methodology has to change, the sequencing changes, and the measurements and benchmarks also have to change. That is something administrators also need to be aware of as they are leading immersion programs.

Felicia Eybl

Very important. What do we know about language building in immersion programs?

Bernd Nuss

That is a very complex question, and I want to split it into two parts. One refers to the language piece, and the other refers to the instructional piece.

CRAFTY

Polyglots

PODCAST

Let me start with the language piece. I want to emphasize the vocabulary corpus, but also the structural piece. For the vocabulary corpus, that is one of the strongest predictors for language knowledge and language acquisition, but also for reading comprehension in general.

Contrary to common assumptions that reading fluency is a strong predictor, it actually is not as much. It is more the reasoning skills and the vocabulary knowledge that you bring to the table.

I want to talk a little bit about the work we did with the University of Calgary because they came across the same problem that many German immersion programs have: there are no leveled readers on the lowest level available in German.

They reached out to me, so we started a partnership about seven years ago. One of the research areas is a vocabulary corpus that is being used for children.

We looked into the school library of an immersion school in Calgary. We scanned 600 children's books, and from that we built a vocabulary corpus of 30,000 words.

We did not just look at the words, but we also weighted them because if you compare a Harry Potter book with a beginning reader or one of the Eric Carle stories, it is simply unfair. So we weighted them so that every book had the same value.

We also looked at the decoding index because we wanted to see how accessible those words are to beginning readers. We also did a grammatical classification just to have a better idea of how the vocabulary corpus is structured.

I want to split the outcomes into decidability and vocabulary categories.

The decidability was quite interesting because 95% of all the occurring functional words we considered to be easily decodable. That is a huge amount. Also, 35% of the content words were easily decodable. So there was a large amount of vocabulary that students encounter frequently, and therefore any student would already be able to read a large amount of words in a common text.

That would also be a challenge to German publishers, really, to create books based only on easily decodable words. You have to be very purposeful with that, and that is still missing in the German market. We are working on that.

I also want to talk about decidability in a slightly different context because there is currently a strong push to move away from leveled readers to decodable books again. I want to mention that this is actually quite contrary to the philosophy of immersion education, which builds on gap learning.

Students learn not by being directly taught exactly everything they need to know, but by always having a gap beyond what is being explicitly taught. They always have to guess about 10% or 20% of the words they do not know.

By doing so, they learn the content explicitly, but also accidentally learn the language. So that is something that perhaps also needs to be considered within the discussion about decodable books.

The vocabulary categories were also interesting. These functional words that I mentioned constituted only 1% of the entire corpus, which is quite normal. That refers to prepositions, pronouns, auxiliary verbs, and similar words. But at the same time, they constituted 40% of the entire volume of words that appear in any given text.

CRAFTY

Polyglots

PODCAST

Taking again the 95% into account that I mentioned before, there is actually a huge amount of vocabulary available already. With that, you can also build quite complex sentence structures, even with very simple words in German.

What was also very interesting was that 80% of all the words had very few occurrences. That gives the impression that there is a very condensed core vocabulary corpus that is being used for elementary students, but then there are subsets of vocabulary corpora that are very different by theme, by topic, and by books that are presented to the students.

This is also very important to consider when thinking about what language students are actually acquiring. Especially in an immersion environment, where most of the content is academically based, we do not have as much of the common core vocabulary corpus that I have been mentioning, because a lot of language use is actually carried over into those specialized pockets.

There is a certain deficit within the immersion community. We are aware of that, and some research has been done on it as well. The academic language is quite strong, but the conversational language, and a lot of the vocabulary corpus related to it, is actually missing.

So that would also be part of the research effort: to create lists of words that students need exposure to, and probably to determine at which grade level those words should be introduced, just to have a framework.

Talking about a framework brings me to the second part, which is grammar. There is also a major research challenge there.

Current immersion programs generally assume that grammar develops naturally through modeling and repetition. There is a lot of research being done, mainly by Dr. Roy Lyster, about strategies to counteract fossilized errors, those recurring grammatical errors, through prompts, focus on form, corrective feedback, and similar approaches.

But what is still missing is a research-based developmental grammar progression that starts from the very first sentences that students are able to create and generate, like a copular sentence, and then asks: how does it build further on?

What is the natural progression for a native speaker from infancy? How does that progression look in an immersion program? Is it really just a copy of that, or do students that start in an immersion program already have a certain set of grammar rules from the first language that they can transfer?

This progression, regarding which grammar structures need to be introduced and at which level, is still missing.

Out of curiosity, during a test by the German government in fourth grade, I took a record of all the students and the errors they were making. It was quite astounding how many mistakes those students still make. The quality and the quantity did not entirely surprise me, but when you have it written in front of you, it really makes you think.

Based on that, I changed my teaching practice and I tried certain things. I found that many of those fossilized errors can be counteracted much earlier than is generally assumed if you are targeted and very consistent. But it has to happen across all the teaching staff.

What I also found is that the students then develop an awareness of what is right language and what is wrong language. I think the majority of immersion students understand what functions in the language and when they are not being understood. That is one distinction. But they do not really have an awareness of what is good language and what is poor language.

CRAFTY

Polyglots

PODCAST

They usually only find out once they encounter, during a student exchange trip, some of the funny faces and responses of native speakers asking, "What are you trying to say there?" Only then do they realize that it is not only about being comprehended.

It is really difficult to establish something like that in classroom practice because we know teachers in immersion programs already work a great deal more, and they therefore have less time. It is essentially a full-time job to create anything like that.

Now let me go back to the teachers, the language standards, and the assessments. This is now the instructional piece.

The language standards we have in the United States, like ACTFL standards, and in Europe the CEFR framework, are valuable reference frameworks. They were primarily designed for foreign language education. They always made an effort to include immersion programs into that standards framework. However, there are some complications.

I will give you a very simple example: past tense, because past tense is considered intermediate level. However, our kindergarten to second-grade students do not necessarily have an intermediate language level. They are just approaching that. Yet they are exposed to past tense all the time because a lot of the vocabulary building I mentioned before also goes through literature, storytelling, and narrative writing.

So immersion really follows a different developmental pathway that is not exactly represented directly in some of those standards. That is due to the fact that students have to express very complex content very early on, in science and social studies, for instance. There is a strong focus on academic vocabulary, which does not necessarily correlate with general foreign language proficiency standards.

That is something to consider. If we think about the standards and how they are not really a perfect match, we also have to think about assessments.

Apparently, in the United States, there is a societal agreement that assessments and data collections are very important, sometimes almost outsourcing the professionalism of teacher judgment.

Different assessment measures use different constructs. We now have many programs developed in the last 10 to 15 years that do online adaptive work, and I have to say I am very impressed with how the companies have been reaching out to researchers and practitioners to improve their tests.

But still, there are questions open about how to measure language, and how language is developed and measured differently for foreign language programs and immersion programs.

Our students also take some assessments that are directed more toward academic progression because they are issued by governments in France and Germany. The goal there is for students to show academic proficiency and to get the equivalent of a high school diploma.

So our students are exposed to these different types of tests. What we really observe all the time is that the same students and student cohorts obtain vastly diverging proficiency profiles depending upon the assessment instrument.

We also tried and played around a little bit with one single assessment tool that has two different versions, one for younger students and one for older students. Even there, one student taking that same test within one company also developed a different profile.

CRAFTY

Polyglots

PODCAST

I am not trying to say that those tests are not working well. I think they are really brilliant, and the levels are astounding. But it is just very difficult to assess such a complex construct as language. It is not like assessing an algorithm in mathematics where you either have it or you do not.

For assessments, we have to look at the academic versus conversational focus. We have to look at exposure to different sets of vocabulary corpora, as I explained before. We also have to look at different language tasks because students are asked to do different things with language than in foreign language programs.

So the interpretation of those assessments should always occur within the instructional goals of the immersion model.

I also want to extend my answer a little to one common issue that has been mentioned about language acquisition in general. Immersion students are frequently described as understanding considerably more than they actually produce in the language.

We did test our students in the target language, but for three years consecutively, we also tested the same students in English, just to compare how those two languages, target language and first language, actually develop side by side.

The results were also quite interesting. The language production in the target language, especially in eighth grade, was actually quite comparable. That maybe reflects back on the accuracy of the testing tool, because I know that the English is surely better than the target language.

Regardless, the other very important piece is that the difference between receptive and productive language was actually greater in the native language than it was in the immersion language. That makes sense, though you would not necessarily think of it that way at first.

It also suggests that it is maybe not so much of a language issue, but more a normal developmental characteristic. There is this huge gap between comprehending and actually producing language.

There are certain questions that came out of all these observations and experiences. I would really like to know more about which language level is commonly used in daily life and which language level is commonly used within a school setting. I would like to know that for children, but also for adults. What is really a normal, regular language level?

Should immersion instruction, and literacy instruction in the first language in general, include activities that intentionally propel students to advanced-level language production? The answer, obviously, is yes.

But if so, would this instruction have to be more explicit to help students generate a more complex language discourse? Maybe the traditional modeling in immersion programs is just not enough to capture and practice the diversity and complexity of advanced language structures.

So I think there should be an honest discussion about whether the premises of traditional immersion instruction even apply at the higher discourse levels, or whether a more metalinguistic and grammatical approach would be more appropriate for higher language levels.

Felicia Eybl

If you had the opportunity to influence the future of immersion education, what would your priorities be?

Bernd Nuss

I believe that immersion education has reached an exciting stage in its development.

CRAFTY

Polyglots

PODCAST

The first research done on immersion asked, “Does immersion work?” There is now a clear check mark. Yes, it works for content, and it works for language. At the very least, it is not a disadvantage.

Later generations of researchers focused more on why and how it works. Neuroscience has played a role, and researchers have also looked at specific student groups that may have certain disadvantages, such as ADHD, some cognitive disadvantages, or multiple language backgrounds before entering an immersion program.

But I think the next generation should focus on the development of a research-based vertical acquisition framework. I am saying that because that task has been imposed on teachers for so many years. Teachers have been told, “Just do it,” but they simply do not really have the time or means to do that because it is a full-time job.

Many people have to work together, and they have laid out those research deficits. What is really still missing is guidance from research that would provide such a development.

So I am recapping what I mentioned before. I think we should develop a vertically aligned common vocabulary corpus that starts in first grade, second grade, third grade, and so on. That would probably be very comparable across the different languages because it represents the language a beginning speaker would use.

But we also need to look at the specified academic language that is being overused in immersion programs. We need to provide resources and develop resources as researchers so that those vocabulary deficits in the common core vocabulary, which are so essential for language development, are brought into the classroom.

We should develop books that target exactly those words that do not commonly occur in the academic environment, not to explicitly teach the language, but through multiple exposure, which is also part of the immersion philosophy. But that part is still missing, and I think research should play a part in that.

The same is true for the structural progression of language acquisition. I think there should be more guidance, or at least recommendations, regarding which grammatical structures should be taught and focused on very early on in order to avoid the occurrence of some of the recurring errors and to prevent them from becoming fossilized, because those are really very difficult to eradicate later on.

We also need to better align the language standards with immersion requirements. Maybe that is just an amendment to the standards that we already have, but it should explain that there might be a different working order in place for immersion programs.

We also need to develop immersion-specific assessments. If we need to test, then those tests have to be fair.

The assessments should consider not only conversational language but also academic language. They should recognize differences among the immersion models, depending on which subjects are actually being taught in that immersion program. They should also interpret the assessment results in the context of immersion, not as an absolute score.

To better understand the differences among immersion models is a precondition for what I just explained, because the models really do show a very wide range, again recapping target language specifications, literacy sequencing, how that progresses, the instructional location of the language by subject area, the instructional rigor of content versus language, and the overall curriculum organization.

Felicia Eybl

Great. What further recommendations would you have for the future of language immersion education as you consider all of this information?

CRAFTY

Polyglots

PODCAST

Bernd Nuss

I believe that immersion education has really reached a point where simply demonstrating that immersion works is no longer the primary challenge.

The next challenge is developing those research-based developmental pathways for vocabulary, grammar, and literacy acquisition. Therefore, new assessments and curricula are required that reflect the unique instructional conditions of immersion education rather than simply adapting foreign language and literacy frameworks from the mainstream classroom.

So I think that would be my overall summary of how I see the future of immersion programs being supported by the research community.

Felicia Eybl

Thank you, Dr. Nuss, for joining us today. It has been a pleasure.

Bernd Nuss

Thank you. I appreciate it greatly.

Felicia Eybl

Thank you.