Scaling-up Language Learning Progressions to Support Formative Assessment: Lessons Learned from a Case Study Implementation

Margaret Heritage (CRESST/UCLA & WestEd)
Alison L. Bailey (UCLA)

Objective

The Dynamic Language Learning Progression Project is part of a larger effort to improve the assessment of the English language proficiency of preK-12 English language learners (ELLs). This paper describes lessons learned from a case study implementation of the dynamic language learning progression (DLLP) with teachers in grades K-5. The lessons learned from this implementation are informing professional development designed to bring to scale the use of the progression for the purpose of formative assessment and adaptive instruction with ELLs.

Perspectives

Dynamic Language Learning Progression

College- and career-ready standards present increased demands in terms of content expectations and what students are required to do with language as they engage in content-area learning. As a consequence, teachers of ELLs have the challenge of developing students' language and content simultaneously from standards that describe end-of-year expectations but which do not identify the intra- or inter-grade development of underlying or relevant language skills to meet these expectations. This challenging situation is further exacerbated by the absence in English language development standards of linguistic content and how it might progress over time as a result of learning and development (Bailey & Heritage, 2014).

In contrast, learning progressions offer teachers a view of how learning develops through increasing stages of sophistication over an extended period of time (e.g., Corcoran, Mosher & Rogat, 2009; National Research Council [NRC], 2007; Sztajn, Confrey, Holt Wilson, & Edgington, 2012). The DLLP extends prior work on progressions to the area of language, specifically explanation, a cross-cutting language practice in new standards. Derived from analyses of an extensive corpus of data of children's oral language production, the purpose of the DLLP for explanation is to assist teachers in gauging the characteristics of the language features the students are producing in different contexts in order to guide their instruction and formative assessment practices. Eight high-leverage language features are captured in the DLLP (see Appendix A). These eight features are referred to as "high-leverage" because our coding and analyses focus on how gaining incremental control of these particular characteristics may support students' capacity to use language in increasingly sophisticated ways for explanation purposes in the content areas. More concretely, from a teaching perspective these are features of students' explanations that we noted might be most readily identified, monitored, and taught by teachers. The relatively small number of leverage-features can be used to qualitatively set more sophisticated explanations apart from less sophisticated ones on the DLLP (Bailey & Heritage, 2014). Each of the eight high-leverage features is organized by discourse-, sentence-, and word-level characteristics and comprises several linguistic (e.g., simple to complex sentence structures and cognitive (e.g., taking a listener's point of view in order to decontextualize language) components.

Formative Assessment and Adaptive Instruction

Formative assessment involves ongoing assessment of how language use is evolving in content-area learning to inform teaching in response to students' immediate learning needs (Bailey & Heritage, 2008; Heritage, 2013; Heritage, Walqui, Linquanti, 2015). Assessment intended to inform instruction involves a nuanced interpretation of student responses from which to design actions that target specific learning needs (Wiliam, 2008). A nuanced interpretation moves teachers beyond the "got it/didn't get it" analysis of learning to more clearly understand how learning is developing during the course of its development (Otero, 2006). The DLLP provides an interpretive framework to teachers by 1) supporting their more nuanced inferences about students' current language status so that they can adapt instruction based on evidence and 2) empirically uncovering which skills develop next in a sequence so that teachers can more specifically target anticipated skills in order to advance a student's language learning.

Developing Teachers' Knowledge and Skills

In broad terms, our theory of action for the DLLP (see figure 1 below[1]) hypothesizes that the "input," the familiarization with the DLLP by teachers, will result in an increase in their knowledge of how language learning develops (output). This knowledge will assist them to attend productively to student language (output) so that instruction is informed by evidence obtained during formative assessment practices resulting in improved language learning by students (outcome).

[1] We have not yet investigated student outcomes in our theory of action with student data however we have explored teacher reports of student growth (Bailey, Chang & Heritage, 2015).

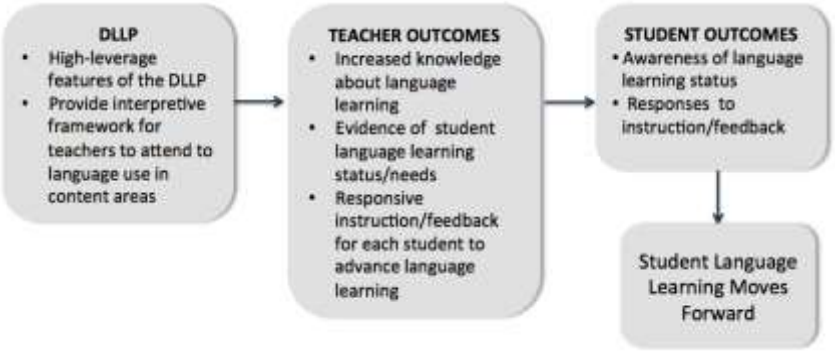

Figure 1. Theory of action for the DLLP (Bailey & Heritage, 2014; Heritage, Chang, Jones & Bailey, 2014).

Professional Learning

Elmore (2002) proposes that for improvements in student learning to occur, teachers must be provided with adequate opportunities to enhance both their content knowledge and pedagogical skills. This view has been underscored by others in the area of teachers' formative assessment practices, in particular (Wylie, 2008; Heritage, 2010; Wiliam, 2007). Therefore, building teacher capacity to operationalize the theory of action represented in Figure 1 requires opportunities for them to increase their content knowledge of language, and their skills in attending to language during the course of content-area learning.

As noted in a report from the Consortium for Policy Research in Education (CPRE), the consensus view about high-quality professional learning opportunities is that they are:

> "grounded in research and clinical knowledge of teaching and learning. They are aligned with the school's curriculum and assessments and focused on student learning in that setting. They facilitate teachers' collaboration both within and across schools (Weiss & Pasley, 2006, p. 2)

Professional learning to develop teacher capacity in using the DLLP effectively has been grounded in these principles expressed in the consensus view. Next, we report on findings from a professional development intervention designed to support teachers' use of the DLLP for the purpose of formative assessment and instruction.

Methods

The current study is an exploratory, qualitative study in which six elementary school teachers participated in focus groups (professional development) on incorporating the high-leverage features of the DLLP in their classroom instruction and formative assessment.

Participants

Six K-5 teachers were recruited from a university laboratory school. The teachers were all female and ranged in teaching experience from four years to 21 years. All teachers reported that they had participated in a university-level language or linguistics courses, and four teachers reported having professional development training related to language. Two teachers taught kindergarten, two teachers taught in first and second grade combination classes (primary grades), one teacher taught in a third and fourth grade combination class (intermediate grades), and one teacher taught sixth grade (upper grade). The students in the participating teachers' classes were a mixture of English-only students and ELLs. Three teachers had classes in the school's dual language program, and three teachers taught in English-only classrooms.

Professional Learning: Focus Groups

The teachers participated in focus groups, intended to support professional learning, six times during the period September 2013 through May 2014 and three times between October 2014 and March 2015 to date. At least two members of the research team were present for each session. One filmed the meeting and the other(s) provided minimal facilitation for the group. The teachers were introduced to the DLLP and the high-leverage features in September 2013 and in subsequent focus groups they shared their experience of implementation. During each focus group meeting, teachers reported on their experience attending to the language features and selected at least one new feature for the next round of observations.

In May 2014, the teachers participated in the final focus group of that first school year with the DLLP approach to formative assessment and were asked to reflect on their professional learning experience and what had been successful for them and why.

Data and Data Analyses Procedures

All the focus group meetings were recorded and later transcribed. All verbatim transcripts of the meetings were open-coded to generate organizing themes for teachers' perspectives on professional learning related to using the DLLP.

Findings

The findings are reported in the following sections: (1) collaborative context for learning, (2) choice, and (3) limiting the focus.

Collaborative Context for Learning.

A major theme emerging from the data was the importance of an open and collaborative process for learning. Teachers valued regular meetings, hearing each other's experiences and the opportunities to discuss with each other potential next steps to support language learning. They particularly emphasized the value of collaborating across age levels. As one of the primary teachers reported:

> What was really helpful were the monthly meetings. We could go and try out something and come back and talk about it. To have a session in isolation, just a one-time deal would not work. What we enjoyed is this whole collaboration among age levels. We could see what was missing, what we needed to add, the progression, and the discussions and us questioning each other, kind of like saying, did you try this, do you try that, how about this? Those one monthly discussions were really helpful.

This observation was endorsed by the other teachers. Also noting the benefits of cross-grade collaboration, an upper-grade teacher commented:

> …as a team we were able to you know look at the school across all levels, one area that we were able to focus and there were some aha moments and we were able to develop something and meet children's needs.

Teachers also thought that listening to what other teachers had done helped them think about what they might do in their own classrooms. As one teacher stated:

> And just listening to what other teachers are doing in other classrooms definitely helps. Because it gives you ideas as to what you can do.

Another teacher expanded on this when she said:

> I think what happens is that when I come here and listen to people, like today, it makes me think about what can I do with younger kids to get them ready for that type of experience for next year.

There were several instances in the group meetings where teachers became aware of areas where they needed to advance student language learning as a result of their peers' observations. One teacher, new to the intermediate level, when discussing the use of causal connectors as part of the advanced relationships between ideas feature with a primary colleague, recognized the limited repertoire of causal connectors that her intermediate level students were using, both orally and in their written work. She concluded that her current students demonstrated little or no advance in their use of causal connectors from the primary students' usage. As a result, she decided to focus on expanding students' repertoires of connectors to expand and more precisely express their relationships between ideas.

Teacher Choice

Another theme was the importance of teachers being able to choose which language feature of the progression they focused on. Initially, teachers were asked to attend to several specific language features of the progression. After a brief period when all the teachers focused on common language features, they decided that they wanted to pay attention to those features that were most relevant to their own students' oral language capabilities. The features they selected ranged from topic vocabulary, to sentence structures, to expanding word groups.

The value placed on teachers using the DLLP for their own purposes was captured by one teacher:

> It really makes it evident and obvious at least to me what are the things I can be working on in the classroom and what I should be listening in on. So that way I can incorporate it into the content that we're currently on.

Referring to the importance of choice, another teacher observed: "We had such freedom in terms of our interests." Echoing this point, and also recognizing the need to incorporate the DLLP into their own practice in their own ways, her colleague responded, "Yes, you have to have the opportunity to experiment with it, and take risks with it, with others, within different curricula areas."

Researchers were interested in having teachers record the evidence they gathered and possible action and provided some templates for this purpose. These, too, were quickly rejected by the teachers who preferred to experiment with their own formats, despite the fact that they found this a struggle at the beginning of the project. On teacher reflected:

> I found it challenging to be transcribing, writing what they were saying, listening too, and being able to give them feedback, all on the spot. Even in recording them, I felt I was recording and trying to listen to what they were saying to see if there was any evidence, so that was a bit of a challenge.

Eventually, they each developed a method for attending to and documenting student oral language during content instruction, often through a process of trial and error, that best suited their situation.

One primary teacher tried a variety of recording strategies, from trying to take notes on students' conversations to tallying the number of times she heard particular temporal and causal connectors being used. Both these recording strategies were deemed unsuccessful by the teacher because she felt that "the richness in this whole experience was the dialogue" which was why she "stopped keeping tallies" because "it just wasn't giving much information other than the words that were being used, but not really the context, so I went back to recording some of the dialogue." This teacher mostly recorded

dialogue by hand, but she " [audio] recorded couple of the groups using the iPads [instead of] trying transcribing." Another teacher in the upper grade voiced challenges to recording student dialogue as well. She had students tell oral narratives, but she said, "In retrospect I wish I had my iPad with me to [audio] record because that is where rich dialogue happens, they're thinking critically, and then they have to add to it." Since she was not recording their real-time dialogue, she noted, "What I have them do is I had them, after the oral sharing, I had them write it down so I collected that data. So all my data is written."

A primary teacher developed a note-taking template, which she placed on a clipboard and used for conferences with individuals and groups and observations throughout the lesson. The template headings were: *date, language feature, student language, language feature modeled, student response, next steps.* In a context of math talk, the teacher noted for one child "still using simple sentence structures to explain how he solved a problem." In the *next steps* section she recorded "provide more opportunities for the use of complex sentences, model for support (partnering with Sean), work on paraphrasing with prompts."

Limit the Focus

As noted above, initially teachers were asked to attend to two to three common language features, which they rejected in favor of selecting their own. Initially, the teachers found it very difficult to observe language while simultaneously teaching content. However, by focusing on a language feature of their choice, and imposing a limit of one feature at a time, they gradually developed skills necessary for a dual focus on language and content. Reflecting on her implementation, one teacher stated:

> I think the idea of starting small. I think what helped us was focusing on one particular content area and really just trying to flesh it out. Trying to understand the balance between teaching to content and teaching to language. Not just how you are going to teach it but how you to look for the evidence. I'm constantly thinking of the mathematical practices and how ways of organizing, just having the mathematical practices in one column and having particular questions that can be asked to students that would really target those particular practices next to those questions, having the connectors or sentence features so that when we are touching on this mathematical practice, there are a couple of questions that we can pose to students and here are some possible features that might become evident in their use of language, and if not, that can possibly be taught to.

Here the teacher has descried how she broke the use of the DLLP into three key domains: the mathematics, the types of questions or prompt she will use to access students' mathematical understanding, and the kinds of language features she anticipates those questions to elicit in her students' responses. This way, she is not setting different tasks for herself - first assess the math, then the language back and forth. Rather, she has made her practice the seamless and meaningful integration of the two.

Echoing this perspective, another teacher stated:

> I think for me how I've been processing it from the beginning, it seemed initially overwhelming, with all this information coming at us and trying to tackle multiple ones [features] at once. For me, what I found useful is really focusing on one and truly understanding the elements and the progression of that one and looking at how it's involved in different content areas. And then once I feel I have a good understanding of that one, and then moving onto the other one. So I can look at how I can incorporate those two ideas together within the curriculum. I see it as, for now, taking one progression in one area of focus and understanding that, and then from that there building other ones and incorporating those together.

In March 2015, when the teachers were reviewing the gains in their knowledge and skills, several teachers commented on how from shaky beginnings when they needed to limit their focus to one feature at a time in one content area, they were now able to

adeptly handle several language features across content areas. As one teacher observed:

> When I see where I was last year, last year at the beginning I feel like I could only focus on one feature. I felt that I just kept on going back and it was that specific feature that I kept on focusing over and over. I think towards the end of the year and this year I've felt much more comfortable and have been pretty flexible in terms of not only focusing so much on language being developed in one specific area, but seeing how it merges into other areas.

This view was echoed by another teacher when she said:

> I think I would have to agree. I just think it feels as you become more confident and comfortable you can add more layers to it. Definitely.

Discussion

A limitation of this study is the small number of participant teachers. A further consideration is the fact that these teachers work in a university laboratory school and are used to collaborating with researchers. The early rejection of researchers' direction in terms of the focus on, and recording of, students' language maybe an artifact of their confidence in research situations. It is possible that other teachers involved in similar efforts may need more direction and for longer, or may feel less comfortable suggesting their own modifications and adaptations to what materials are handed them. Nonetheless, the themes identified from the case study reflect similar themes found elsewhere in the scalability literature.

The collaborative context for learning provided teachers with the opportunity to learn with and from each other and was one they clearly valued. Each meeting had a similar structure and routine: teachers reported on their activity since the previous meeting, other teachers asked questions and provided feedback, teachers decided on their next area of focus. Beyond collaborative learning, the meetings also offered a setting for "supportive accountability" (Wylie, Lyon, Mavronikolas, 2008). Because of the

meeting's consistent structure and routines, teachers were accountable to each other for implementing the DLLP in their classrooms and for reporting on progress. The notion of supportive accountability is nicely captured by Wylie et al. (2008) from a case study on implementing formative assessment when a high school teacher reports " I was surprised at how strong an incentive that was to actually do something different…just the idea of sitting in a group, working out something, and making a commitment, even something as informal…I was impressed about how that actually made me do stuff" (p.31).

Teacher choice, both in terms of limiting the focus on language features of their choice and how to collect evidentiary notes, was also an important factor in their DLLP implementation. Researchers provided the parameters for the meeting, including the structures and routines, and organized the regular (monthly) meeting times. After the first two meetings when teachers decided that they wanted to focus on the language features that were of most relevance to them, the researchers' role was confined to attending the meetings to listen and record, and occasionally to probe the teachers' ideas or implementation practice. This approach is consistent with a "tight but loose" framework that others have applied in scaling up professional learning (see for example, Leusner, Ellsworth, Goe, 2008; Tocci & Taylor, 2008; Weiss & Pasley, 2006). It is tight in the sense that the meetings were convened regularly, and were structured for supportive accountability, but loose because of the flexibility given to teachers to choose how they wanted to implement the DLLP.

There was no attrition from the group over the year plus of meetings. It may be noted that teachers viewed language development as an important aspect of student learning and were committed to expanding their knowledge and skills over an extended

period. Indeed, their commitment is underscored by their enthusiasm for continuing into a second year of implementation, even when it was made very clear to them there was no expectation for them to participate.

The value of their learning is captured by one teacher when she stated:

> I didn't have this level of knowledge [about language] – definitely not. I've always been told that language development is important – I remember learning that throughout my teacher education program that I went through, but it was not explicitly taught like this. I gained a much deeper understanding of that progression and all the different elements to look at.

One of her colleagues also noted:

> And having this [DLLP high-leverage features] to look at made me more cautious to the decisions I previously made, to make sure that it's not just focusing on the content but also their oral language development.

Future professional learning opportunities for broader dissemination will be informed by the themes reported here in relation to how the teachers developed knowledge and skills to use the progression well in the service of language learning in the content areas.

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Appendix A

The eight high-leverage language features of the DLLP are:

- *Sophistication of topic vocabulary* (small core topic vocabulary progressing to a more extensive topic lexicon and use of precise/low frequency topic vocabulary)
- *Sophistication of verb forms* (simple tensed verbs progressing to inclusion of gerunds, participles, and modals [auxiliary verbs such as *should, might* conveying probability, obligation, etc.])
- *Sophistication of sentence structure* (simple sentences progressing to complex sentences)
- *Establishment of advanced relationships between ideas* (through the use of causal, adversative, conditional, comparative, and contrastive discourse connectors)
- *Control of perspective-taking* (through the maintenance of appropriate personal pronouns)
- *Coherence/cohesion* (through the use of temporal connectors and cohesive devices)
- *Expansion of word groups* (including derived words, nominalizations [nouns formed from verbs or adjectives, e.g., *multiplication, goodness*], adverbs, adjectives, relative clauses, prepositional phrases, and general academic vocabulary)
- *Stamina* (evidence of a mental model with use of sufficient detail and elaboration for the listener to make meaning)