

Teacher Use of Formative Assessment Data for English Language Learners

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Introduction

This paper presents an exploratory analysis of teachers' feedback in focus groups about online reports aimed at providing accessible information about English language learners' (ELLs) performance on reading assessments designed for formative purposes. Examples of the online reports are included in the Appendix. The focus groups were part of a larger project on the development of assessments for formative purposes for ELLs conducted by the Educational Testing Service (ETS) in collaboration with the National Center for Research on Evaluation, Standards, and Student Testing (CRESST) at the University of California, Los Angeles. While the focus groups were not originally intended as an exploration of teachers' understanding of assessment for formative purposes, our data revealed some interesting insights about the teachers' perceptions on the purpose and use of formative assessment for ELLs.

Prior work has suggested that teachers do not have a clear understanding about assessment for formative purposes (Boyle & Charles, 2010; Gearhart & Osmundson, 2008; Gearhart et al., 2006; Heritage, Vendlinski, Kim, & Herman, 2009; Heritage, Jones, & White, 2011; Osmundson, Herman & Dai, 2010). The insights from our present analysis add to this growing body of work about teachers' understanding and use of formative assessment data.

Our analysis of the data was guided by the following research questions:

- 1) *Do teachers understand the nature and purpose of assessment for formative purposes?*
- 2) *What perspectives do they have on how to respond pedagogically to formative data?*



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Background

Assessment for formative purposes is intended to assist learning while instruction and learning are taking place so as to close the gap between a learner's current status and intended learning goals (OECD, 2005; Bell & Cowie, 2000; Black & Wiliam, 1998; Erickson 2007; National Research Council (NRC), 2001; Torrance & Pryor, 1998). By contrast, assessment for summative purposes helps determine whether a student has achieved a certain level of competency after a particular phase of education, for example, a unit of study, a year of schooling, or 12 years of schooling (NRC, 2001). Assessment for formative purposes operates at a micro level and provides finer-grained data to inform decisions that are more proximate to immediate teaching and learning than data for summative purposes, which generally covers a more extended period of learning.

There is no one single way to collect formative data. Griffin (2007) argues that humans can only provide evidence of cognitive and affective learning through four observable actions: what they say, write, make, or do. It follows then that formative data can be gathered through a variety of means. These include informal methods during the process of teaching and learning that are mostly planned ahead of instruction but can occur spontaneously (e.g., observations of student behavior, written work, representations, teacher-student interactions and interactions among students) as well as more formal methods (e.g., through administering assessments that are specifically designed for formative purposes for ELL students).

Walqui and Heritage (2012) have argued that learning for ELLs should be contingent. Contingent learning occurs when teachers and students take the opportunity to build on what students already know in order to move them incrementally through a process of scaffolding from their current state of learning to a more advanced state. In this sense, scaffolding is the "just right" kind of support required by students to engage in practice that helps them mature processes which are on the cusp of developing.

Contingent learning is dependent on a steady stream of data about how learning is progressing while it is in the process of developing. In the case of ELLs, teachers need information about language and literacy learning so they can engage in appropriate pedagogic action to keep student learning moving forward. In particular, teachers

of ELLs will need information in the areas of listening, speaking, reading, and writing so that they can make pedagogical decisions based on assessment data in these areas that are intended to advance learning. By its nature, then, formative assessment data must be instructionally tractable so that teachers can use the data to "form" learning (Shepard, 2005).

Methods

In this section, we describe the focus groups' participants and data, data collection, and data analyses procedures.

Participants & Data

Participants and data for the present study were part of a larger study to develop and validate a formative assessment in reading comprehension for middle-school ELLs. Data for the study presented in this paper came from teacher participation in focus groups and their responses on a survey related to an assessment of ELLs' reading for formative purposes. A total of 11 teachers participated in the focus groups, and of those teachers, eight also completed the teacher survey.

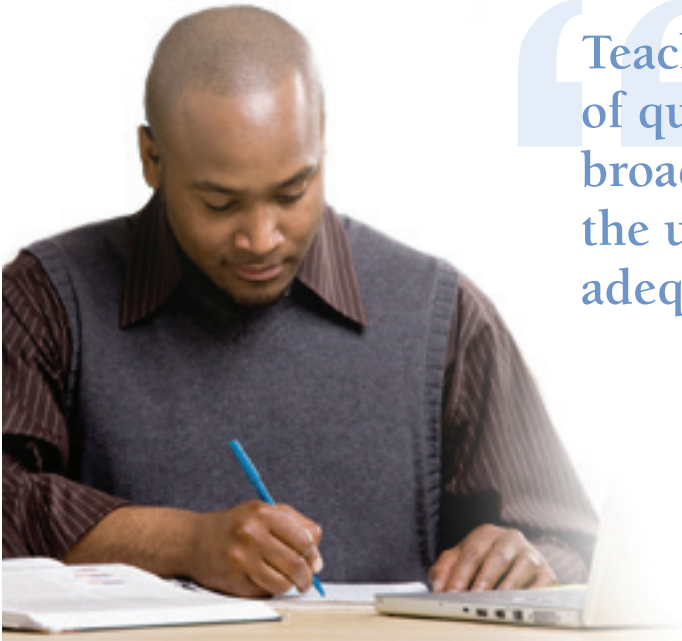
The 11 teachers who participated in the present study were middle-school teachers from urban and suburban school districts in California, New Jersey, and Wisconsin. Six teachers taught in California, three in Wisconsin, and two in New Jersey. Teachers had between 7-24 years of teaching experience. Participants were recruited for their experience in teaching ELL students. Teachers from California and Wisconsin were recruited by the authors through the Los Angeles Unified School District's Central Office and the Wisconsin Department of Education. The participants from New Jersey were recruited by ETS. For their participation, teachers were paid a \$50 honorarium for the focus group and a \$100 honorarium for the teacher survey.

Procedures

For the focus groups, participants were divided into three groups. Between January 26, 2012 through February 2, 2012, we conducted an hour-long online webinar for each group, which focused on score reports for a formative assessment for ELLs (see samples in the Appendix). Prior to the webinar, participants were sent the ELL assessment to review and the questions that would be the focus of the session. At the beginning of each webinar, teachers were given background information on the assessment

(e.g., format and purposes of the assessment and target populations), and during the webinar two versions of the score reports were presented. Teachers were asked a range of questions about the reports, broadly summarized as the utility of the reports to adequately inform instruction. We also asked teachers for their suggestions to improve the score reports. During the focus groups, teachers also volunteered their thoughts on various aspects of the assessment, such as its use and feasibility.

data and identify themes based on formative assessment use with ELL students. We developed a coding scheme based on three targeted areas of interest in relation to the use of formative data: evaluative stance, pedagogical response, and the need for fine-grained data. Transcripts and open-ended survey responses were coded with the established scheme by two researchers. When there were disagreements between the researchers, consensus was reached through discussion.



“Teachers were asked a range of questions about the reports, broadly summarized as the utility of the reports to adequately inform instruction”

The webinars were audio-recorded for later transcription. Audio-recordings included the moderator's presentation of the reports and teacher responses. Teachers were also able to share their ideas and thoughts by typing into a chat-box area that was also recorded and saved.

To complete the survey, teachers were asked to review the ELL reading assessment developed for formative purposes and answer a series of questions related to the content and quality of the test questions and the usability of the assessment. The survey contained Likert scale questions and open-ended responses so teachers were able to explain in greater detail their thoughts about the assessment and its use. Teachers completed the survey from February 24, 2012– March 12, 2012.

Qualitative Coding

We conducted multiple close readings of each focus group transcript, including comments from the chat box and opened-ended survey responses in order to summarize the

Results

In this section, we present the qualitative results from our data, which are discussed in three main categories: i) evaluative stance; ii) pedagogical response; and iii) the need for fine-grained data.

Evaluative Stance

A number of teachers' comments reflected an evaluative stance to formative assessment, which is more consistent with a summative view and reflective of familiar forms of teacher summative assessment “such as end-of-unit tests and letter grades assigned when a course is finished” (NRC, 2001, p. 38).

Several teachers expressed the idea of “grading” the assessment data. For example one teacher said:

“If the target objective is listed above the question, then I can see what's not getting mastered as I grade them.”

A teacher in a different group asked:

“Could I input the responses for a paper test without grading and have the computer generate the grades?”

Yet another teacher commented:

"The assessment would be useful but a pain to grade."

Their comments likely do not refer to assigning letter grades but rather to the idea of scoring the assessments; nonetheless, we view the use of the term "grade" as consistent with a more evaluative perspective on assessment, particularly as the assessments were presented to the teachers in the context of formative purposes.

Other teachers expressed an evaluative stance in different ways (e.g., "a formative assessment at the end of a unit"). While formative assessment could take place at the end of a unit if the teacher's intention is to use the information to address specific learning needs before moving to another unit of study, this specific formulation refers more to a typical form of teacher summative assessment. Another teacher suggested that she would "try to use it once as a pretest, once as a formative, and then use the district periodic assessment as a summative...to track progress" indicating her more summative orientation to assessment use as a way to monitor progress.

Pedagogical Response

In general, most teachers recognized that assessment for formative purposes involves taking some pedagogical action based on the data. As one teacher noted, "The individual report allows us to see what areas we would need to focus on after the assessment." However, the prevailing view of the kind of pedagogical action needed was "reteaching" and is summed up by the teacher who expressed his approach to assessment use as "teach, practice, assess, analyze, reteach." "Reteaching" is not consistent with the idea of contingent learning in assessment for formative purposes where the focus is on determining the status of learning related to the intended goal and moving learning forward from the point the student is at closer to the goal.

This "reteaching" perspective was echoed by a number of other teachers. For example, one teacher said:

The class reports are more telling of what to focus on for reteaching.

Another teacher observed that:

"The first one [report] is better for reteaching of standards that were missed."

And also, with respect to the class report, an additional teacher commented:

"This is powerful for individual reteaching or small group work."

Concerned about the number of skills addressed, another teacher expressed the view:

"I think this assessment would be too many skills to plan in one week as well as reteach in one week unless there were more teachers involved."

While these teachers understood the idea that some action needs to be taken as a result of the data to improve learning, their comments do not suggest an understanding of the notion of contingent learning, but rather presuppose that students have either learned what they were supposed to or they have not and, if they have not, they need to be retaught. We also see this view as more akin to an evaluative stance on the formative use of assessment data. Only one teacher in our sample expressed a view of student learning as on the cusp of development when she stated, "I like the option of entering detailed data, especially for students who are on the brink of leveling up or mastering something new."

Need for Fine-grained Data

A number of teachers said they valued the individual student reports as a way of focusing on individual students. For example, one teacher said, "It will show in the individual assessment that the student needs more help," and another commented, "It is especially important to have individual reports to pinpoint what the problem is and where exactly the student is struggling." Also several of them recognized the need for fine-grained assessment data for formative purposes. This view was variously expressed as:

An assessment that gave me MORE information about FEWER objectives would be more useful as a progress-monitoring tool (teacher's emphases).

Going more in depth would provide more reliable data. This assessment could be a first step, then based on individual results there could be an assessment for each of the skill areas.

...crucial part of the assessments going past the general understanding and digging deeper.

What if there was a way to generate a class report that gave us the option to just input the number of students who missed each question. Then can decide on a case-by-case basis if want to get a closer look at a particular class/student/objective.

...maybe formative assessment on one skill that was being taught throughout that week.

Like breaking down the points of what the students said and how their thinking process might be – probing.

It is worth noting that the teachers who expressed the need for fine-grained data were not the same ones who presented follow-up pedagogical action as “reteaching.”

A further point related to the need for detailed data, and touched on by a few teachers in our sample, concerns assessment for formative purposes as part of ongoing teaching and learning. One teacher thought that “assessment happening [in] real time should help structure the lesson so that teachers can figure out what students are not understanding.” Another teacher questioned the way the data were being used and proposed that there should be a way to “integrate data into lessons.” Two other teachers suggested that we include a place in the online individual student reports for teachers to input notes from their classroom observations so that they could view these alongside the assessment information about individual students.

Discussion & Conclusion

From our analysis, we found teachers’ perceptions of the purpose and use of formative assessment primarily centered on the three aforementioned themes. With respect to evaluative stance, the majority of focus group participants perceived the formative assessment that was presented to them as a tool to evaluate their students. With respect to pedagogical responses, we found that most teachers understood that the formative assessment provided data about their ELL students and required further pedagogical action. However, most teachers thought of “reteaching” as the pedagogical response, which vitiates the notion of contingent learning and instead highlights a more evaluative stance to formative assessment. Only one teacher expressed the understanding that formative assessment is used to progress students from one level to the next. Lastly, several teachers recognized the need

for fine-grained assessment data for formative purposes. Although teachers described various aspects of the use of fine-grained data, there was one main purpose for its use: to monitor and support individual students.

What is evident in the present study is that the majority of teachers in our sample did not fully understand the purposes and uses of data from an assessment for formative purposes. There may be a number of reasons for this. Notwithstanding its well-documented advantages to student learning (Black & William, 1998; Hattie & Timperley, 2007), the practice of formative assessment is less frequently implemented than may be supposed (Erickson, 2007). Many cultural and organizational factors underlie this. According to Erickson’s (2007) wide-ranging discussion, these factors encompass the dominance of summative testing as a tool of evaluation and the associated disprivileging of teacher’s discretionary authority relative to professional psychometrics. Together with cultural assumptions about the basic nature and content of teaching and learning, these factors tend to deskill teachers’ clinical judgments about teaching and learning and eventuate in a failure by teachers to act upon in-process or proximate assessment data while instruction and learning are taking place (Heritage, forthcoming). In this context, one question that arises from our focus groups is: How can teachers, particularly ELL teachers, be supported to use formal assessments designed for formative purposes effectively? We address this question below in terms of two main considerations: i) assessment design, and ii) teachers’ content and pedagogical content knowledge.

Considerations in Assessment Design

In general, designers of formal assessments for formative purposes will need to ensure information is instructionally tractable, providing teachers with the level of detailed information they need for proximate pedagogical action. Such pedagogical action involves matching instruction to the needs of students, which will only entail “reteaching” if students do not have any understanding at all. However, in this instance, rather than “reteaching,” adopting a different approach to instruction, or considering if the intended learning is within the realm of what students can do with assistance, may be more appropriate.

Designers of formal assessments will also need to consider conveying to teachers what the scores mean. As one of the teachers noted, “It is difficult when we are just given a number and a level with no meaning behind it or how it translates into the classroom.” Providing teachers with

indications of what students' scores mean in relation to where they are in their learning could be an important aid for teachers to be responsive to an individual's or a group's learning status. Even more helpful could be instructional suggestions based on the level the students have reached relative to the intended learning. Within the scope of the larger project of which the focus groups are a part, we plan to conduct an exploratory study on the utility of providing teachers with clear performance descriptors with suggestions about pedagogical action.

Teachers' Content and Pedagogical Content Knowledge

Teachers' content (CK) and pedagogical content knowledge (PCK) (Shulman, 1986) have been associated with their effective use of assessment for formative purposes (Heritage & Niemi, 2006; Sadler, 1998; Shavelson et al., 2005; Threlfall, 2005). Merely providing assessments is unlikely to impact what happens in the classroom without an effort to ensure that the results can be used effectively by all teachers. Without well-developed CK and PCK, teachers are less likely to be able to use assessment data contingently. To do so, teachers need to be clear about the intended learning during a more or less extended sequence of instruction. The intended learning goal will ideally, and as often as possible, represent a step on the path toward expertise in relation to an understanding or skill. Teachers will also need to understand what assessment data show about students' current learning status relative to desired goals. This status can range from no learning at all, to emergent understanding and skills, to an intermittent or fragmentary grasp of what is to be learned, to a more stable understanding or skill. Once teachers have determined the status, they then need the PCK to make an appropriate match between a pedagogical response and where the students need to go next. Without this more refined understanding of learning and PCK, teachers will likely resort to "reteaching" as their response to formative data.

In terms of ELL teachers' CK for using assessment data formatively in the context of reading, an understanding of the development of academic language, connected to a development of reading knowledge and skills may be helpful. In reform circles, the idea of learning progressions (or in mathematics, trajectories) grounded in empirically tested and testable hypotheses about the ways children's thinking actually develops in interaction with experience and instruction is gaining ground (Mosher, 2011). Such

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progressions could potentially provide teachers with a mapping resource to navigate the contingent terrain of student learning, especially if they provide performance descriptors of stages in the progression. In this regard, some interesting work is being undertaken in mathematics where teachers are given information about the stages of learning of a particular concept or skill at various points along the progression (e.g., Barrett et al., 2012; Confrey, 2010). A current project, dynamic language learning progressions (dllp.org), which involves the authors, is focused on developing and validating progressions of language functions and providing support materials so teachers could use the progression for instruction and formative assessment.

In sum, a combination of assessments that provide descriptions of performance levels, possible next steps depending on the level, which are mapped to learning/teaching progressions, could support teachers in increasing both CK and PCK to make effective use of assessment for formative purposes.

Limitations of the Study

There were several limitations in the present study. First, the sample size was small. Second, although we recruited teachers from three areas of the country (East coast, Midwest, and West coast), the sample may not be representative of all teachers who instruct ELL students. A third limitation is in the focus group format. While focus groups are useful forums for participants to voice their thoughts and opinions, it is possible that our participants' responses may have been cued by others in the group. Some teachers in our sample could have expressed

opinions that were in line with more dominant perceptions voiced, even if they differed from their personal stances. Lastly, the score reports that the teachers were asked to view may have cued them to think more of summative purposes, even though teachers were provided with the assessment to review prior to the focus groups, as well as a brief overview of the assessment's purposes. Teachers in our sample reported that some aspects of the score report formats we presented were familiar to them; however, teachers' familiarity and use with score reports were typically for summative assessments. Therefore, we do not

know the extent to which teacher responses were cued by the actual format presented.

Notwithstanding the limitations of the study, we think the results raise interesting questions about teachers' understanding and use of assessment for formative purposes, as well as the effectiveness of such assessments as a means to support the language and literacy learning of ELLs. Clearly, further investigation is needed to ascertain the degree to which our teachers' perspectives are representative of ELL teachers' views more generally.

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Appendix: Examples of Score Report Forms

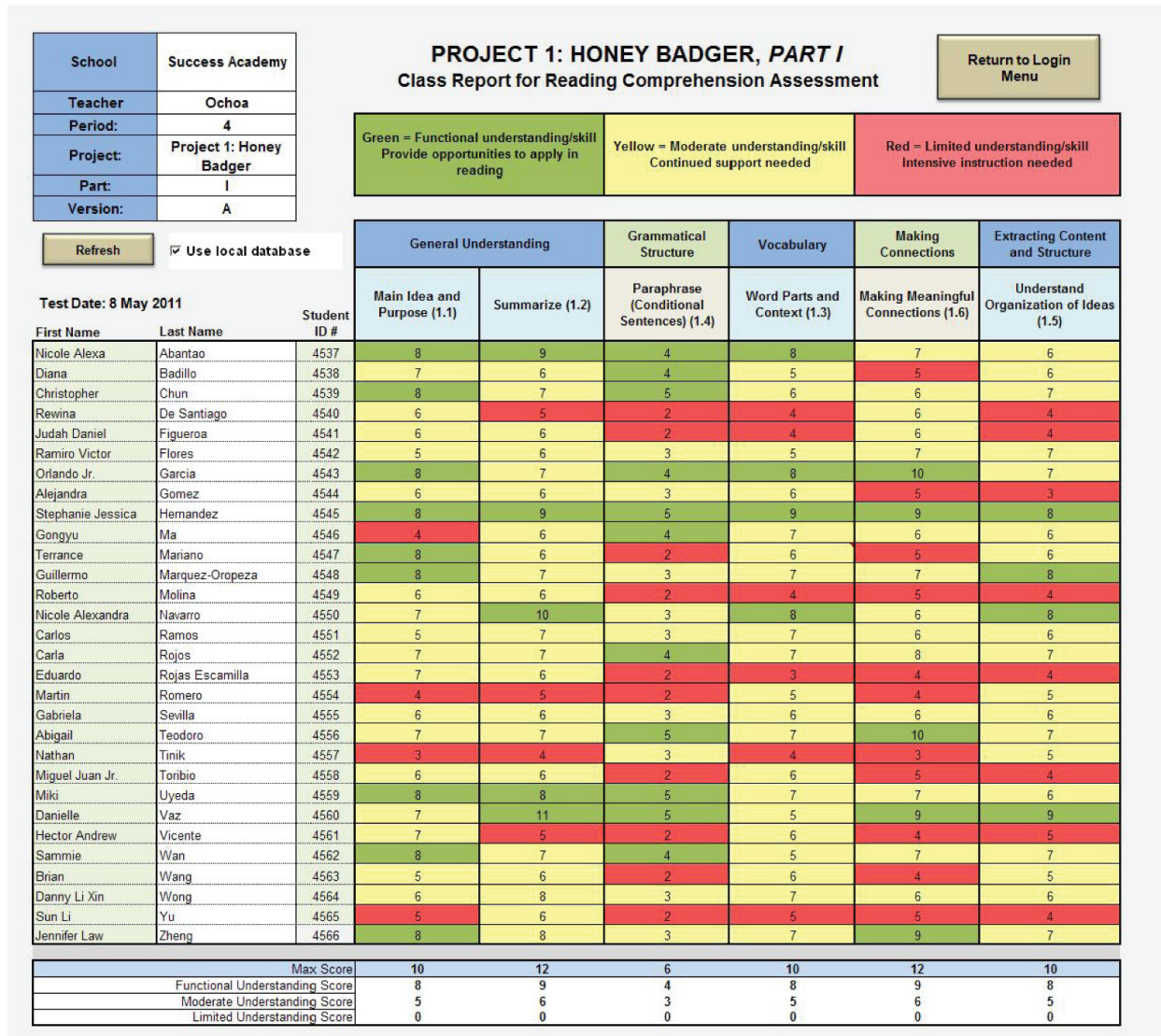


Figure 1. Class view report with individual student scores.

Appendix: Examples of Score Report Forms (Continued)

Individual Report: Reading Comprehension Assessment, *HONEY BADGER*, PART II

School Name:	Success Academy	Project:	Project 1: Honey Badger
Teacher Name:	Ochoa	Part:	I
Student Name:	Abantao, Nicole Alexa	Version:	A
Student ID#:	4537	Date Taken:	7-May-11

Title	Items	Question	Target Response	
Understanding Main Ideas (Pg. 11)	1	Main Purpose	B. To explain why protection of honey badgers is necessary	<div style="border: 1px solid black; padding: 5px;"> Student Response: C. To warn beekeeper honey badgers </div>
	2	Main Idea	A. Beekeepers are a threat to honey badgers	
	1	Paraphrase	D. If a hive is attached to the ground with wire, then honey badgers will not be able to move it.	
Summarizing by Paraphrasing (Pg. 12)	2	Summarize	B. Biologist should quickly teach beekeepers how to protect hives from honey badgers.	✓
Understanding Vocabulary by Using Word Parts and Contexts (Pg. 13)	1	Defined	C. Protection	✗
	2	Definition - Fearless	D. Without fear	✓
	3	Definition - Nutritious	B. Full of nutrients	✓
Understanding Meaning from Grammar (Pg. 14)	1	Conditional Sentences	C. If a hive is rasised high off the ground on a stand, then honey badgers cannot destroy it.	✗
Understanding the Organization of Ideas (Pg. 15)	1	Argument	C. Biologists should teach hive protection methods fast because honey badgers are disappearing.	✗
Making Meaningful Connections (pg. 16)	1	Concepts in Common	B. They both say that the honey badger needs to be protected.	✓
	2	Concepts Not in Either Text	D. The female honey badger gives birth one every 16 to 18 months.	✓
				7/11

View Part I

View Part I & II

Return to Class Report

Figure 2. Individual student report with comment box showing student response.

Appendix: Examples of Score Report Forms (Continued)

HONEY BADGERS

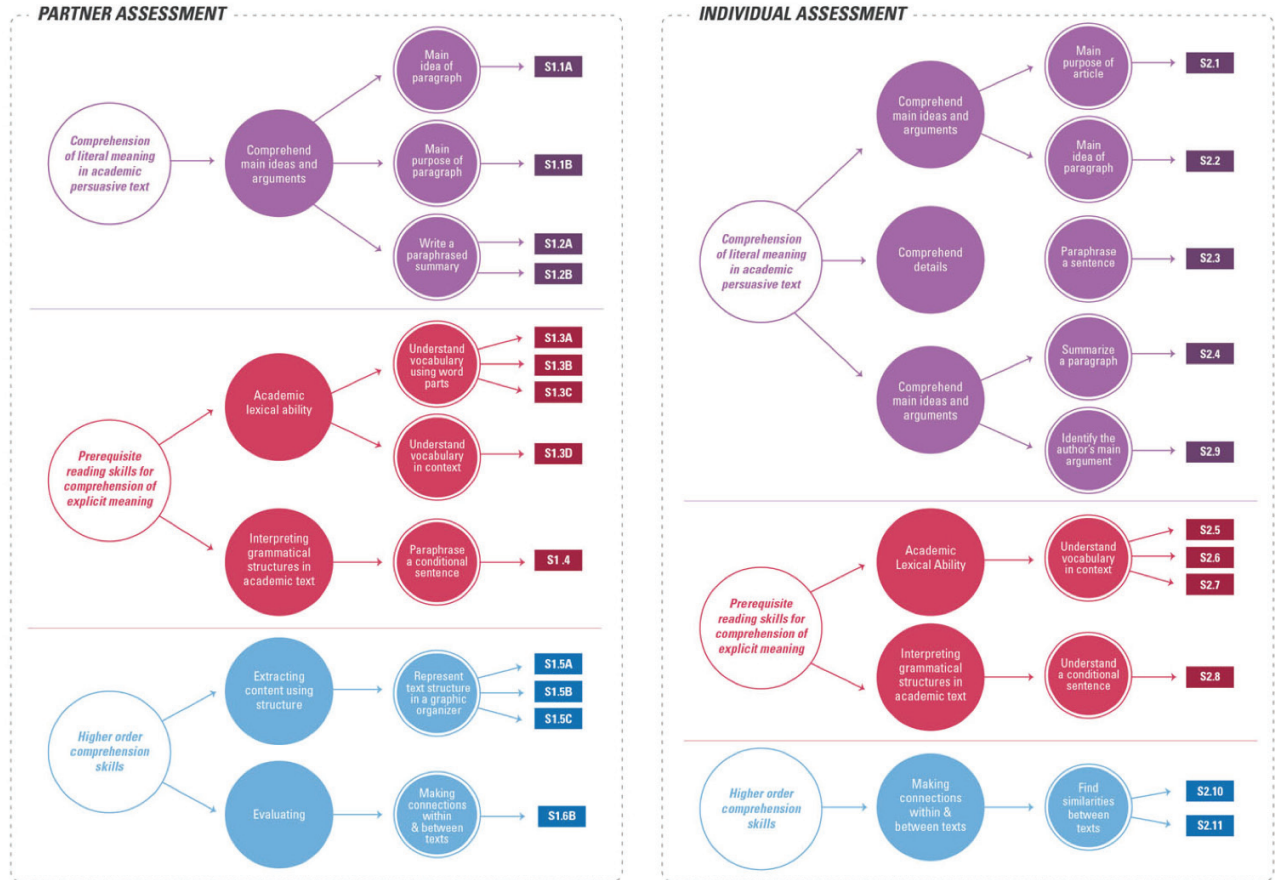


Figure 3. View of assessment content.