



English and Language Arts Teachers’ Perspectives on Schooling Initial Exposure to a Teacher Education Curriculum

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Abstract

This article reports results from a study of teacher beliefs among a panel of English and language arts teachers at three universities as the pre-service teachers entered methodological coursework and internships. Using a new assessment tool, the Developmental Instruction Assessment Battery (DIAB), along with a discrete choice task and one-on-one interviews, teachers reported their developing perspectives on (1) competition in the classroom, (2) hierarchies of traditional academic material, and (3) related views on classroom order, engagement, and teacher authority. We contrast these findings to beliefs reported by a sample of mid-career middle school English and language arts teachers in Western Pennsylvania.

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Introduction

Studies of teacher beliefs have posited that beliefs about schooling may be both a critical determinant of instructional practices and a precondition to meaningful educational reform (Ambrose, Clement, Philipp, & Chauvot, 2004; National Mathematics Advisory Panel, 2008; Ross, McDougall, & Hogaboam-Gray, 2002). Yet, little research has investigated how teacher beliefs develop over the course of a teacher's training and career and whether shifts in teacher beliefs coincide with changes in their instruction. This study reports results from a study of teacher beliefs among a panel of English and language arts teachers at three universities as the preservice teachers entered methodological course work and internships. Using a new assessment tool, the Developmental Instruction Assessment Battery (DIAB), along with a discrete-choice task and one-on-one interviews, teachers reported their developing perspectives on (a) competition in the classroom, (b) hierarchies of traditional academic material, and (c) related views on classroom order, engagement, and teacher authority. We contrast these findings to beliefs reported by a sample of mid-career middle school English and language arts teachers in western Pennsylvania.

A Continuum of Beliefs?

Authority, Competition, and Traditional Knowledge

Many studies of teacher beliefs have adopted the perspective that teachers' beliefs lie on a continuum that might be described as "traditional," on one hand, and "progressive," on the other (Fang, 1996). Although this dichotomy clearly does not capture all of the specific attitudes, preferences, or preoccupations teachers might bring into the classroom each day (for a more expansive treatment of beliefs, see, e.g., Hoy, Davis, & Pape, 2006), it appears, in one form or another, in much of the literature on teacher beliefs and dates at least to Kerlinger's early large-scale studies of teacher beliefs (Kerlinger, 1967; Kerlinger & Kaya, 1959; Kerlinger & Pedhazur, 1968). Kerlinger's measures were based on Dewey's (1902) writings and treated teacher beliefs as fundamental understandings of the purpose of education, how students learn, and what should or ought to be changed about education. In this study, we borrow the terminology Metz (1978) used in her classic study of teacher perspectives on authority to describe this continuum; "developmental" or student centered versus "incorporative" or teacher centered.

The incorporative perspective emphasizes the transmission of an existing body of knowledge and skills to students, with an emphasis on efficiency and an orderly learning environment to increase content coverage. The developmental perspective places special emphasis on cultivating student interest, concentration, and effort. Developmental teachers shift the locus of authority toward students, giving students greater voice in choice of materials and the nature of assignments, to foster

engagement. Patterns of classroom discourse clearly link overarching beliefs to instructional processes, so developmental teaching is considered more dialogic (Langer, 2011). Dialogic instruction refers to an approach to (and observed patterns of) classroom discourse that takes student ideas seriously and elicits substantive engagement (Caughlan, Juzwik, Borsheim-Black, Kelly, & Fine, 2013; Gamoran & Nystrand, 1992; Juzwik, Nystrand, Kelly, & Sherry, 2008). To give one example, when teachers pose “authentic” questions, as opposed to known-answer, test questions, they provide students an opportunity to link classroom topics with their own experiences, and in so doing, the students themselves are given some discretion over the flow of inquiry.

Although we use Metz’s specific terminology, this conceptual framework overlaps with much other work on teacher beliefs (Fang, 1996; Johnston, Woodside-Jiron, & Day, 2001), student engagement (Newmann, Wehlage, & Lamborn, 1992), and schools as organizations (Connell, Ashenden, Kessler, & Dowsett, 1982). Consider Connell et al.’s classic characterization of the *hegemonic curriculum*, defined as “hierarchically-organized bodies of academic knowledge appropriated in individual competition” (p. 120). That is, instruction is hegemonic to the extent that it (a) emphasizes traditional academic knowledge, knowledge which the teacher holds and must transmit to the student, and (b) emphasizes norms of independent achievement. An emphasis on transmission of traditional knowledge is consistent with the incorporative perspective and stands in contrast to the developmental emphasis on engagement. Schools have long been critiqued on the bases that a hegemonic-type curriculum is in some way fundamentally alienating and disengaging for all students, and for generating inequality, as middle-class students more readily embrace traditional academic material and competition (Jackson, 1968/1990; Silberman, 1970; Sizer, 1984). The reasons for this have been explored in a range of more recent research: Influences range from inherent values relating to social relationships versus competition (Gee & Crawford, 1998; Strauss, 1992) to differential investment in cognitive development by middle-class versus working-class parents (Lareau, 1989; Reardon, 2011).

The tension between incorporative and developmental orientations to teaching has proven remarkably persistent. In the past 30 years, teacher education students have been increasingly introduced to constructivist orientations to learning and teaching (e.g., Bransford, Brown, & Cocking, 2000; Bruner, 1986), which focus on experiential/activity-oriented instructional tasks, scaffolding and building on student schema, and a sociocultural emphasis on community traditions and the funds of knowledge students bring to school (Grossman, Smagorinsky, & Valencia, 1999; Lee & Smagorinsky, 2000; Moll, Amanti, Neff, & Gonzalez, 1992). Teacher education students are introduced to these frameworks during their preparation, but the culture of schools has a substantial impact on how new teachers may or may not implement more developmental teaching methods, as we discuss in the following sections.

Complexity in Teacher Beliefs

Despite the recurring emphasis in the teacher beliefs literature on the contrast between teacher-centered (incorporative) and student-centered (developmental) beliefs, we are concerned that identifying a strong relationship between teacher beliefs and instructional practice may be challenging both because of (a) social desirability bias and (b) the possibility that teachers hold complex, even seemingly contradictory beliefs. Using the Partnership for Literacy study data, Kelly (2007) investigated the potential link between three underlying attitudes/beliefs (individualized instruction, working with student limitations, and the transmission of established knowledge), taken from teacher background questionnaires, and observed indicators of dialogic instruction in those teachers' middle school language arts classrooms. Kelly did not find that attitudes were strongly associated with the nature of classroom discourse; indeed, teachers who reported generally "student-centered" attitudes (e.g., "I encourage students to develop their own interpretations of the material we cover") were less, not more, likely to facilitate discussions or to allow for multiple student responses. Other studies of English and language arts teachers have also found inconsistencies between instructional beliefs and practices (Fang, 1996; Kinzer, 1988; Mesmer, 2006; Richardson, Anders, Tidwell, & Lloyd, 1991). A possible explanation for these null findings is social desirability bias: Even the most traditional teacher knows that according to modern pedagogical standards, the teacher is *supposed to* elicit engagement and take student ideas seriously.

In addition, despite the consensus in the literature on an "ideal-type" spectrum of teacher beliefs, in reality, teachers' own perspectives do not always fall neatly on one end of the continuum or the other (Metz, 1978). Indeed, Kerlinger's (1967) early work suggested that teachers often held views that were simultaneously traditional and progressive. For example, it was not uncommon for respondents to hold the belief that learning can be viewed as "gradually building up a storehouse of knowledge" while also agreeing that "learning is experimental." Whether or not teachers appear to hold complex—or even discrepant—beliefs probably depends in part on the specificity of instructional beliefs under study. For example, teacher beliefs that underlie specific instructional decision making and planning may have a high degree of coherence (Stern & Shavelson, 1983). In contrast, more generalized beliefs about teacher authority, student engagement, and so on, may be more complex, with many teachers holding seemingly discrepant views. In science education, researchers have found that the modal teacher employs a blend of teacher- and student-centered approaches (Chang, Hsiao, & Braufaldi, 2006; Chang & Tsai, 2005) and that this may be traced to teachers' complex beliefs (van Driel, Bulte, & Verloop, 2005).¹ In English, a tension exists between the field's current orientation toward expressivist or critical pedagogies (which promote student-centered teaching methods) and school districts' goals to raise test scores, which can push curriculum coordinators, building administrators, and individual teachers toward

curriculum packages that promote drills and hierarchically organized programs to teach basic skills (Hillocks, 2002; Newell, Tallman, & Letcher, 2009).

A Career Trajectory of Teacher Beliefs?

In addition to the inherent complexity of teacher beliefs, an individual teacher's beliefs may develop and change over the course of his or her career. We posit that teacher beliefs at a given stage of the career may be traced to a set of social forces that begins with the teacher's own schooling, is affected by teacher education, but remains influenced by a broader social context. First, many teachers have experienced an "apprenticeship of observation" (Lortie, 1975) that entails traditional, teacher-centered practices in English classes and other subjects (Holt-Reynolds, 1992; Wilson, 1990). Wilson described her entering "Teacher Education 101" students as believing that "teaching ultimately means that students learn something specific that teachers provide" (p. 206). Holt-Reynolds (1992) studied the personal history-based beliefs (i.e., beliefs presumably arising from the apprenticeship of observation) of six aspiring English and three aspiring math teachers and found that their beliefs about effective teaching, what constitutes a "good" student, and subject matter compartmentalization all supported traditional, lecture-based instructional approaches. Similar belief patterns have been reported in numerous other studies of entering teacher candidates (Brookhart & Freeman, 1992). Metz (1989) also reported that widespread cultural models of learning reinforce such beliefs; however, these may be changing, as Kelly and Caughlan (2011) found in their study of instruction in Hollywood films.

Apprenticeship and cultural model influences toward the incorporative are balanced by teacher education experiences that elicit student-centered beliefs. Prior to entering the classroom, English teacher candidates often experience a teacher education curriculum that is heavily oriented toward constructivist pedagogy (Feiman-Nemser & Buchmann, 1985; Grossman & Richert, 1988). A number of studies have suggested that preservice teacher beliefs are resistant to change (Calderhead & Robson, 1991; Kagan, 1992; McDiarmid, 1990; Zeichner & Liston, 1987). However, other researchers have indicated that the constructivist pedagogies dominant in schools of education and the educational literature seem to be complicating Lortie's assertions (Brouwer & Korthagen, 2005; Smagorinsky & Barnes, 2014).

Grossman's (1990) study of the development of pedagogical content knowledge among English teachers supports this contention; subject-specific pedagogical course work can change teachers' fundamental beliefs about how students learn and thus what constitutes effective teaching. In particular, the teacher education students in Grossman's study, regardless of the beliefs held prior to their pedagogical course work, came to adopt beliefs in the importance of engagement and planning lessons that would elicit connections between students' own experiences and the literature

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they encountered in class. Grossman's more recent longitudinal work (Grossman et al., 2000) indicates that as novice teachers gain more experience and confidence, they begin to work in more of the student-centered pedagogies that were modeled in their preparation programs. Brouwer and Korthagen's (2005) research, as well, indicated that teacher education can increase its impact through careful sequencing of field and university experiences and frequent collaboration and communication between university and school contexts.²

What will happen as teachers' careers progress, moving further in time from their formal teacher education training? Will they gradually return to beliefs that are more consistent with an incorporative approach, returning to the state of mind of Wilson's "Teacher Education 101" students? Or in experiencing success with the developmental approach, might they become even more preoccupied with student engagement, more willing to move away from traditional material and methods, and move further away from a competitive classroom environment emphasizing social comparison? One reason to suspect that strong developmental beliefs may not fully persist among today's teachers is that teachers may become increasingly incorporative in an effort to meet contemporary test-based accountability demands. A second reason is that many schools may lack the supports needed for teachers to fully realize developmental instructional practices.

Policy developments in the 2000s and beyond, including the No Child Left Behind Act, followed by state efforts to incorporate standards-based test scores into teacher evaluation methods (Harris, 2011; Kelly, 2012), may have given teachers a clear incentive to emphasize content coverage and teacher-centered instructional practices. Hamilton et al.'s (2007) study of teacher and administrator responses to standards-based reforms under No Child Left Behind (NCLB) provide a broad overview of how such policies have affected teachers' practice. First, almost all principals at both the elementary and middle school levels reported a school-wide effort to match curriculum and instruction with standards or assessments. Second, principals reported incorporating a variety of test-preparation activities into teacher professional development. In response to these assessments, for their part, teachers reported making, among other changes, a variety of moves to increase content coverage, coordinate content with the assessments, and utilize direct instruction. While content standards do not mandate instructional methods or processes of learning, many teachers may in fact respond to such standards in an incorporative fashion in an effort to most efficiently make test score gains. Over time, teacher beliefs about what constitutes effective, normative instructional practices may come to match the practices encouraged by standards-based reforms. Brown (2010) pointed out that today's aspiring teachers are the first to have been completely educated under NCLB protocols.

Peter Smagorinsky and his colleagues have written a series of papers on how beginning teachers develop beliefs and practices related to teaching English language arts, drawing on their course work, early placements, and their

own educational backgrounds (Johnson, Thompson, Smagorinsky, & Fry, 2003; Smagorinsky, Rhym, & Moore, 2013). These are often in conflict, and novice teachers vary in how they draw on the different settings in which they learn to teach to develop a set of pedagogical tools and concepts to guide their teaching. However, these studies also provide an impression that teachers educated in the late 20th and early 21st centuries lean more toward student-centered teaching, even if the settings in which they find themselves make implementing such teaching a challenge. In a longitudinal case study of a beginning English teacher, Newell et al. (2009) found that the teacher experienced tension between her more developmental beliefs about students' meaning making and her high expectations for all students, particularly how these two beliefs were influenced by the goals of her English department.

Overall, today's teachers seem to be facing contradictory social forces that might influence their beliefs about what constitutes good language art teaching. On one hand, teacher education programs increasingly stress student-centered teaching. On the other hand, teachers are also influenced by accountability pressures, especially in low-performing schools. Continuing research on teacher beliefs is needed to shed light on how teachers develop and sustain the beliefs that support instruction.

Measuring Teacher Beliefs

Since Kerlinger and colleagues' early factor-analytic work with using survey questionnaires to measure teacher beliefs, there have been several innovations and trends in quantitative research on teacher beliefs.³ One development is a trend toward identifying increasingly specific beliefs at the subject matter level, even beliefs that correspond to a specific instructional concept or program of reform (Kelly, 2007; Kloosterman & Stage, 1992; Swars, Hart, Smith, Smith, & Tolar, 2007). For example, the Confidence, Commitment, Collaboration, and Student Thinking in Mathematics and Science beliefs scale (Hudson, Kloosterman, & Galindo, 2012) is designed to test beliefs that specifically support the National Council of Teachers of Mathematics (2000) standards, while the Cognitively Guided Instruction (CGI) belief scale is closely tied to the CGI approach (Carpenter, Fennema, Peterson, & Carey, 1988). A second innovation is to focus on the occurrence or planning of instructional tasks rather than generalized statements of values, preferences, or beliefs about what learning is and how it occurs. For example, many of Hudson et al.'s (2012) survey items are "active," asking questions about what teachers do (e.g., "I usually use math problems that can only be solved in one way") or have success with (e.g., "I have difficulty figuring out what to ask students to understand what they are thinking in science"). A third trend is the development of techniques to go beyond relying solely on questionnaires and probe beliefs more deeply, including stimulated recall using audio- or videotaped lessons (Newell, VanDerHeide, &

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Olsen, 2014; Peterson & Clark, 1978), using teacher essays as a source of information about beliefs (Feiman-Nemser, McDiarmid, Melnick, & Parker, 1989), or using semistructured interviews with very general prompts (e.g., “How do your students learn science best?”) to elicit and classify beliefs (Caughlan, 2003; Luft & Roehrig, 2007).

Although some researchers doubt whether traditional questionnaires are even useful in identifying teacher beliefs that actually affect planning and classroom instruction (Brookhart & Freeman, 1992), traditional survey questionnaires have many advantages. Unlike more in-depth methods, surveys can be administered to large numbers of participants efficiently and lend themselves to replication (i.e., measuring beliefs among the same set of teachers at multiple points in time or among new cohorts of teachers). The use of surveys also removes some of the unreliability that arises when observers/raters must subjectively interpret data. Indeed, early developments in survey research were motivated in part by the need to address interviewer bias (Friedman, 1942; Fowler, 2002). Surveys may also be used for administrative purposes; while a questionnaire is clearly not the only or even the best way to make inferences about teacher beliefs, commercially available questionnaires have been introduced to help schools hire teachers.⁴

In the present study, we report the results of a new “traditional” survey of teacher beliefs, a battery of questions designed to measure very generalized beliefs about schooling that correspond to incorporative (traditional, teacher-centered) versus developmental (progressive, student-centered) beliefs. Thus it is important to consider the limitations of the traditional survey approach with respect to measuring teacher beliefs in particular. Ambrose et al. (2004) discussed a number of potential shortcomings of traditional survey items with Likert-type response scales. We briefly review Ambrose et al.’s critique here. In the “Data and Methods” section, we discuss our approach to overcoming the shortcomings of traditional survey methods.

Ambrose et al. (2004) discussed three problems with using Likert-type questionnaire items to measure teacher beliefs. First, such questionnaire items involve a careful choice of words, but even then, the respondent must interpret the meaning of the ideas the researcher is attempting to convey. A second problem, related to the first one, is that questionnaire items often lack context. This problem seems particularly thorny with respect to identifying teacher beliefs about instruction; effective teachers are adaptive (Corno & Snow, 1986; Everitt, 2012), and it makes sense that beliefs about how students learn would be contingent on contextual factors involving the students’ developmental stage and/or the learning task at hand. A third problem is that respondents are generally willing to provide answers/opinions about questions they do not feel strongly about; even a response of “strongly agree” does not mean that the issue is salient in the respondent’s day-to-day teaching.

Hypotheses

First, we hypothesize that preservice teachers, upon initial exposure to the English methods curriculum, will exhibit a strong central tendency toward developmental beliefs. Second, we hypothesize that in contrast, in-service teachers will report holding beliefs that are less strongly developmental. In addition to these primary hypotheses, we pose and answer a number of measurement-related questions concerning teacher beliefs.

Data and Methods

The data for the present study consist of survey and interview data collected from two samples of English and language arts teachers: (a) a sample of preservice secondary English and language arts teachers at three universities collected in fall 2014 and (b) a sample of middle school English and language arts teachers in western Pennsylvania collected in fall 2013. Measures of teacher beliefs were revised and improved for the 2014 data collection; consequently, we provide a more detailed presentation of those results.

The in-service sample consisted of 37 middle school English and language arts teachers teaching in member schools of the Tri-State Area School Study Council, a professional development network of 95 school districts serving western Pennsylvania. We selected a stratified random sample of 11 schools serving at least two middle grades (6–8) from four socioeconomic strata. The socioeconomic strata corresponded to quartiles of percentage free or reduced-price lunch reported in the Common Core of Data 2010–2011: less than 23%, 23%–35.9%, 36%–44.9%, and 45% or more. Of the original 11 schools sampled, 9 agreed to participate. School administrators provided contact information for a total of 56 teachers, of whom 37 returned teacher background surveys administered by traditional mail in the fall (late October to early November), for a response rate of 66.1%. Teachers in the in-service sample had a median of 13 years of teaching experience and a median age of 42 years. Fourteen percent of teachers were male. The median school size was 516 students, with 26% of students on free- or reduced-price lunch, and the student body was predominantly White (96%).

In addition, we collected data from a panel of 56 preservice secondary English and language arts teachers at three universities: a large flagship state university in the Midwest; a private catholic school in the Midwest; and a large, state-related university in the Mid-Atlantic. The sample frame consisted of a total of 73 eligible preservice teachers; all of the teachers enrolled in the English and language arts methods courses in fall 2014. Fifty-six teachers completed survey data (76.7% response rate).⁵ Of these, 43 agreed to participate in a follow-up interview. From prospective interview participants, 17 were randomly selected to complete the interviews.

Measures

The Developmental Instruction Assessment Battery. The primary measure consists of a newly developed battery of questions designed to measure teacher beliefs: the DIAB. The DIAB is designed to measure teachers' emphasis on (a) competition in the classroom; (b) a hierarchy of traditional academic material; and (c) related views on classroom order, engagement, and teacher authority. Prior research on beliefs and English instruction has had difficulty identifying underlying beliefs that support student-centered instruction (Kelly, 2007). Thus the DIAB was designed to overcome social desirability bias and other challenges in measuring beliefs.

The first version of the DIAB used in the in-service sample consisted of 19 items, designed to address common problems in the measurement of beliefs, including problems of interpretation, lack of context, reporting of weakly held beliefs, and social desirability bias. To that end, many of the DIAB items use elaborated rationales. The DIAB was also designed with a forced-choice response scale and a short overall length relative to other beliefs surveys. Each item has response categories of absolutely disagree, strongly disagree, disagree, agree, strongly agree, and absolutely agree, coded from -3 to +3 for this analysis such that positive values indicate an increasingly incorporative stance.⁶

A general guideline in survey development is to avoid the use of "multiple questions" and "unwarranted assumptions" whenever possible (DeVellis, 2003; Fowler, 1995, 2002).⁷ Some of the items in the DIAB were purposefully designed to contain multiple questions and/or elaborated rationales to overcome problems of interpretation, context, and social desirability bias. For example, Question 12 reads, "Long-term projects are seldom appropriate in the younger grades, because students need to develop basic skills to build from," which is a question both about how frequently long-term projects are appropriate in the younger grades and the reason for being inappropriate. This wording is designed to overcome issues of interpretation (a "long-term" project is in part defined here as being the opposite of "basic skills" instruction) and context (even the most student-centered teacher realizes there is some place for short-term basic skills instruction in the early grades; the question implies that instruction in the early grades should be primarily focused on basic skills). It is also designed to counteract social desirability bias, providing a possible rationale for avoiding long-term projects (which contemporary pedagogical theories view as inherently positive). In all, such question wording forces respondents to identify with the stance/viewpoint they agree most strongly with, although they may value both basic skills and long-term projects to varying extents.⁸

The response categories in the DIAB present the respondent with a forced choice; the respondent is asked to agree or disagree—no "neither agree nor disagree" option is available. This approach runs the risk of exacerbating the problem, noted by Ambrose et al. (2004), of eliciting responses despite weakly held or even completely agnostic beliefs. This would in turn create a lack of internal consistency

in the measures, with respondents in essence “guessing” whether they should mark agree or disagree. Yet, we choose to use forced-choice response categories to create a normative expectation in the respondent; he or she must consider each question especially carefully, because there is no middle ground or “don’t know” response. In addition, the questions in the DIAB are generally strongly worded; they ask teachers to take a position where it is easy to identify reasons for or against such a position (and reasons are often provided in the question itself).

Finally, the first version of the DIAB consisted of a total of only 19 items, later revised to 24, far shorter than many teacher beliefs inventories. In addition, similar items pertaining to competition are interspersed with items pertaining to transmission of traditional academic knowledge. Furthermore, the response categories are presented after each question (rather than a matrix of questions in table form) in an effort to create greater cognitive “distance” between similar questions. A general principle of survey design is to include multiple parallel measures to better identify underlying constructs of interest. Yet, we believe that many prior surveys of teacher beliefs have unwittingly tipped the respondent off to the socially desirable (student-centered) response. If you ask enough questions about “giving students choice,” the respondent will eventually reason that favoring choice is socially desirable.

While the DIAB would seem to violate many basic principles of survey design, we believe, at least provisionally, that the design principles might be useful for the study of teacher beliefs. Importantly, prior research that closely followed “best-practice” principles of question design have found only limited association between teacher beliefs (as quantitatively measured) and instructional practices, so the criterion validity for such measures is low. In all, given the current state of research on teacher beliefs, we argue that it is useful to experiment with a less orthodox approach to measuring generalized teacher beliefs.

Results from the first version of the DIAB indicate that it had several desirable statistical properties: There were low levels of item-missing data, almost all items exhibited good variability, and the scale as a whole was well centered around the item midpoints, with excellent variation between respondents. Yet, an analysis of covariance indicated problems with some items. Thus the DIAB was revised prior to the preservice data collection. Experts in English teacher education (Samantha Caughlan and Laura Northrop) reviewed the DIAB items for possible revision. Kelly and Caughlan decided on a final pool of items: 9 items were retained as-is from the Year I battery; 3 items were retained but substantially revised; and 12 new items were added. Several of the new items were designed to test more directly beliefs related to dialogic instruction (i.e., the items included reference to dialogic elements such as discussion or engagement). Appendix A includes the full DIAB, 2nd edition.

Additional measures. For the preservice data collection, the DIAB was paired with a discrete-choice task concerning two hypothetical English lessons, one de-

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velopmental (and dialogic), one incorporative, with the goal of providing a parallel validity check on the DIAB. The discrete-choice task was modeled on Aubusson, Burke, Schuck, Kearney, and Frischknecht's (2014) study of teachers' preference for rich tasks, although on this paper survey, respondents were all asked to consider the same two hypothetical/alternative lessons on Romeo and Juliet in a 9th-grade class. The focus was on analyzing Act 4, Scene 3 (the scene where Juliet drinks the sleeping potion), with the goal of drawing inferences about Juliet's character using evidence from the text. Lesson A (the more incorporative approach) emphasized individual persuasive essay writing and revision, whereas Lesson B (the more developmental approach) emphasized collaborative group work and a theatrical performance by students of the scene in modern English. Appendix B contains the discrete-choice task.

A subset of teachers in the preservice sample agreed to participate in structured cognitive interviews, which were designed to help assess the reliability and validity of the DIAB items and provide a more nuanced, open-ended opportunity to query teacher beliefs. To begin the interview, participants were given a random sample of six DIAB items to reanswer. Following that task, the participants were queried about the process of answering each question, including how they interpreted the question substantively, their rationale for selecting an answer, whether that answer was linked to/evoked a specific teaching or learning experience, the respondents' level of certainty, if any part of the question was unclear, and whether they felt the question had real-world relevance. Participants were also asked whether they felt the DIAB items as a whole were important for teachers to think about.

Methods

We begin by considering the measurement properties of the DIAB in the preservice data, including the level of item-missing data, variability between respondents, and an analysis of covariance among the items. The measurement analysis led us to drop three items from further analyses. We next present statistics summarizing the level and dispersion of beliefs in the preservice data, considering both the DIAB and the discrete-choice task. We then present the results from the cognitive interviews, posing and answering a series of questions about the measurement of teacher beliefs with the DIAB. Finally, we compare the results from the preservice data to the in-service sample, focusing on the subset of items that was consistent across data collections.

Results

Measurement Properties of the DIAB

Table 1 reports descriptive statistics in the preservice data for each of the DIAB items, where positive responses indicate an incorporative stance. Three items are marked with a superscript in this table and were later dropped from fur-

ther analysis. As an initial indicator of measurement error, we found low levels of item-missing data among the 56 responses to the 24 items. Indeed, only a single item (Item 17) from one respondent was missing a response. Second, it is important

Table 1
Descriptive Statistics for the DIAB (24 Items): Preservice Data

<i>Beliefs about instructional practices^a</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>Min.</i>	<i>Max.</i>
Q1. Choice over materials and assignments	56	-1.500	1.112	-3	2
Q2. Do things on their own	56	0.339	1.505	-3	3
Q3. Study classic texts	56	0.009	1.422	-3	3
Q4. Encourage discussion	56	-2.286	0.909	-3	1
Q5. Basic grammar/structure before creative projects	56	-0.429	1.650	-3	3
Q6. Encourage competition	56	-1.286	1.155	-3	2
Q7. Learn same basic material as always	56	-0.393	1.510	-3	3
Q8. Learning happens in interaction with others	56	-1.250	1.297	-3	2
Q9. Textbooks provide the best foundation for curriculum	56	-1.045	1.169	-3	2
Q10. Post scores to foster effort	56	-2.152	1.136	-3	2
Q11. Basic facts are essential for success in life	56	-0.089	1.405	-3	2
Q12. Long-term projects are not appropriate	56	-0.661	1.254	-3	2
Q13. Publicly acknowledge exemplary work ^b	56	0.518	1.388	-2	3
Q14. Help students connect to material	56	-1.938	0.944	-3	1
Q15. Get sidetracked trying to connect with disengaged students	56	0.411	1.511	-3	3
Q16. Stick to established curriculum	56	-1.821	0.917	-3	1
Q17. Difficulties in learning are due to lack of effort	55	-1.691	0.993	-3	1
Q18. Identify and focus on brightest students early on	56	-1.821	1.029	-3	2
Q19. Perfect disciplinary routines before new activities	56	0.018	1.567	-3	3
Q20. Classic texts no use for future lives ^b	56	0.304	1.488	-3	3
Q21. First responsibility to maintain order	56	-0.768	1.549	-3	2
Q22. Concentrate on students showing interest	56	-1.804	0.883	-3	1
Q23. Approach academic concepts in multiple ways ^b	56	-2.339	0.880	-3	1
Q24. Lecture and Q&A are efficient	56	-1.848	1.160	-3	2

Note. Positive values indicate an incorporative response (items reverse-coded as necessary).
a-3 = absolutely disagree; 3 = absolutely agree. Some item descriptions are paraphrased (condensed).
bThis item is subsequently dropped.

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that the DIAB measures beliefs that vary from teacher to teacher. Examining the variability across respondents, all of the items indicated some degree of variation, with standard deviations ranging from 0.88 to 1.65. As a whole, this sample was skewed toward the developmental end of the response scale, but even in this sample of preservice teachers, several items had means close to zero, indicating a balance of developmental and incorporative perspectives. For example, Item 3 (“Students should study classic texts in depth, even if they struggle with the language”), with a mean of 0.009, had 29 respondents agreeing to some degree, while the other 27 selected a disagreement category.

We next conducted an analysis of covariance among the DIAB items, treating the items as parallel measures of an underlying construct of teacher beliefs. Although some items pertain to different dimensions of the developmental perspective (i.e., traditional material, competition, classroom order, etc.), we expected respondents with clearly developmental (or incorporative) beliefs to show some level of consistency across items. Preliminary analyses indicated that among the 24 original items, three items (Items 13, 20, and 23) were largely uncorrelated with other items.⁹ Thus Table 2 reports an analysis of covariance among the remaining 21 items. In

Table 2
Covariance Analysis of the DIAB (21 Items): Preservice Data

<i>Item</i>	<i>Obs.</i>	<i>Item–rest correlation^a</i>
Q1	56	0.278
Q2	56	0.197
Q3	56	0.219
Q4	56	0.332
Q5	56	0.531
Q6	56	0.206
Q7	56	0.456
Q8	56	0.210
Q9	56	0.381
Q10	56	0.565
Q11	56	0.543
Q12	56	0.475
Q14	56	0.326
Q15	56	0.296
Q16	56	0.516
Q17	55	0.707
Q18	56	0.402
Q19	56	0.547
Q21	56	0.489
Q22	56	0.492
Q24	56	0.681

^a $\alpha = .840$.

preliminary analyses, we conducted a similar analysis using a collapsed, “-1 to +1” scheme and found similar results. In Table 2, the item–rest correlations range from .197 (Item 2) to .707 (Item 17). The alpha reliability for the combined set of 21 items is .840.

**The Level and Dispersion of Teacher Beliefs:
The DIAB and Discrete-Choice Task**

To summarize teacher beliefs, we created a summative composite score, where negative values indicate increasingly developmental beliefs. With relevant items reverse-coded, a score of -63 would be maximally developmental, and any scores above zero indicate an incorporative response on average. Table 3 reports a frequency distribution of scores in the preservice teacher data on the summative composite

Table 3
**Frequency Distribution of Responses on the DIAB in the Preservice Data:
Summative Composite Scores (21 Items)**

<i>Score</i>	<i>Frequency</i>	<i>Percentage</i>
-50 to -40	5	9.62
-39 to -30	10	19.23
-29 to -20	15	28.85
-19 to -10	13	25.00
-9~10	9	17.31
Total	52	100.00

Note. Scale ranged from -63 (developmental) to +63 (incorporative).

Table 4
**Responses to Discrete-Choice Task Between Lesson A (Incorporative)
and Lesson B (Developmental): Preservice Data**

	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>Min.</i>	<i>Max.</i>
Which lesson would you choose to deliver to students? ^a	55	-1.582	0.832	-2	2
Which lesson enhances student learning? ^b	55	-1.255	0.985	-2	2
Which lesson maximizes student engagement? ^b	54	-1.722	0.738	-2	1
Which lesson requires more teacher effort? ^b	54	-0.648	1.246	-2	2

^aResponse categories were as follows: much prefer Lesson A (+2), somewhat prefer Lesson A (+1), somewhat prefer Lesson B (-1), much prefer Lesson B (-2). ^bResponse categories were as follows: definitely Lesson A (+2), probably Lesson A (+1), probably Lesson B (-1), definitely Lesson B (-2).

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scores. The majority of respondents scored below -20 , which would indicate, for example, some range of developmental response on nearly every item. Indeed, a large percentage of preservice teachers scored below -30 , indicating that responses were nearly always developmental, some very strongly so. Only two respondents had scores above zero, but even these respondents did not report strongly incorporative views (scores of 4 and 10).

Following the DIAB, the preservice teachers responded to a discrete-choice task, selecting a preference for one of two hypothetical literature lessons on the text *Romeo and Juliet*. Lesson A, the more incorporative lesson, emphasized individual student composition to encourage a close reading of the scene, while Lesson B, the more developmental lesson, emphasized collaborative group work and interpretive performance of the scene by students. Respondents were asked which lesson would be more likely to enhance student learning and student engagement, which lesson would require more teacher effort, and which lesson they would be most likely to deliver to their students. Table 4 reports summary statistics for the discrete-choice task coded from -2 (much prefer/definitely Lesson B) to $+2$ (much prefer/definitely Lesson A). The preservice teachers indicated a strong preference for the more developmental lesson, believing that it would both maximize student engagement and enhance student learning. At the same time, the respondents were somewhat more likely to indicate that the developmental lesson would require more teacher effort. Overall, only 3 out of 55 respondents said they would choose Lesson A over Lesson B, even though 40 of the respondents thought it would be easier to implement.

Cognitive Interviews

For additional insight into the reliability and validity of the DIAB items, we conducted structured cognitive interviews with a subsample of 17 respondents.¹⁰ In each interview, participants reanswered six randomly selected DIAB items using pencil and paper and then responded to a series of questions about what they were thinking as they answered the items. Each interview audio file was then coded by two independent raters on several dimensions (e.g., did the respondent provide an elaborated or only brief rationale for his or her answer on a given item?). Interrater agreement ranged from 73.4% (for the elaboration of response) to 93.1% (for respondent confusion).

Relevance. To investigate teachers' overall sense of whether the instructional perspectives and issues were relevant and important, the interview participants were asked, "As a whole, do you think it is important for teachers to think about these types of questions?" Fifteen out of 16 respondents were rated as judging the questions to be "highly important." Respondent 202 noted that the items seemed particularly relevant in light of her student teaching experiences:

I definitely do. And I would say that questions like these, if I would have had this interview last semester, I wouldn't have known how to answer a lot of these . . . because a lot of these are like my personal experiences of what I've seen at my pre-student teaching site this semester. So, yeah, I think it is important to think about, but I don't think I would have if I wasn't in the classroom.

As an additional indicator of relevance, respondents were also asked, following each specific DIAB item, whether they thought "this is an issue real teachers in real classrooms have to encounter," with responses coded as "no," "yes," or "unsure." As a whole, of 97 responses across the 17 participants, 87 (89.7%) of the items were described as relevant in a real-world setting. Respondent 109 agreed with Item 15, "a teacher can get sidetracked trying to modify the curriculum to connect with disengaged students," explaining the real-world relevance:

Definitely, there are always going to be students in every class that are disengaged. It's the reality. I mean, I've wanted . . . I would love to have a classroom where it's so exciting and wonderful but . . . I can definitely see where a teacher would, you know, point out those two students and go, like, oh man, I have to help them at the expense of everybody else.

Items 6, 12, and 15 were listed as having an unsure relevance most frequently. Issues of relevance were sometimes questions about grade level or applicability of the issue to a particular educational setting.

Depth of thinking. To further understand the thoughts and perspectives affecting respondents' answers, we were interested in whether respondents provided elaborated explanations for their responses to the DIAB items and whether their responses were linked to a specific teaching or learning experience. Raters coded whether the respondents provided "only a brief explanation," a "somewhat elaborated explanation," or a highly elaborated explanation (generally a paragraph or more of content in the transcript). In addition, raters coded whether a specific teaching or learning experience was cited by the respondent in his or her reasoning and whether that experience was briefly discussed or discussed at length, as well as the source of that experience. Of 102 qualitative item responses, 64 (62.8%) were highly elaborated, 31 (30.4%) were somewhat elaborated, and 7 (6.9%) were brief. In these responses, specific teaching or learning experiences were discussed at length in 53 (52.0%) cases, briefly in 36 cases (35.3%), and not at all in 13 (12.7%) cases. The most common type of experience cited was a specific event involving the respondent as teacher (38.2% of experiences cited), followed by general events involving the respondent as teacher or remembered experiences of the respondent as student (19.1% of experiences each), hypothetical scenarios (15.7%), and examples from education course work (13.7%).

Uncertainty. Owing to the length and complexity of some of the DIAB items, we anticipated that some respondents would express uncertainty about their responses

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or struggle with the meaning of terms used in some questions. As the overall survey analysis shows, three of the DIAB items excluded from further analysis (Items 13, 20, and 23) had poor measurement properties, and the cognitive interviews confirmed problems of uncertainty in Items 13 and 20. Did the cognitive interviews provide evidence of more widespread uncertainty among the larger pool of items?

Respondents in the cognitive interviews reported being somewhat or highly sure of their answers in 77.5% of cases. In addition, for each DIAB item in the cognitive interviews, coders evaluated whether the respondents' qualitative explanation of their response category indicated genuine confusion, that they had fundamentally misunderstood the question, or focused on the question in such a way that agreement or disagreement was irrelevant or opposite of the question's intended focus. Of the 102 items screened, we found only 5 clear instances of confusion (4.9% of cases). Three of those instances were from a single item (Item 7), "students need exposure to new technology, but students today should be learning the same basic material as always." This item might be improved with revision, either by more carefully emphasizing technology as a mode of instruction as distinct from "the essential concepts that have stood the test of time" or by simply dropping the introductory clause. Overall, while some degree of uncertainty was not uncommon, genuine confusion was rare. The qualitative comments almost always reflected beliefs and perspectives relevant to the intent of the question.

This version of the DIAB was not without its problems. Yet, as a whole, the cognitive interviews indicate to us that respondents approached answering the DIAB items with a high degree of concentration; more often than not, respondents provided elaborated, personal explanations for their answer choices. While uncertainty or confusion occurred occasionally on specific items, we did not observe any respondents whose responses were so error ridden as to be uninformative. In addition, the respondents reported that the issues measured in the DIAB were relevant and important to their work as English teachers.

Comparisons Between the Preservice and In-service Samples

We hypothesized that in comparison to the preservice teachers, in-service teachers would espouse a more incorporative set of beliefs, or, if they were not actually incorporative, less strongly and consistently developmental than the beliefs of teachers currently immersed in teacher education programs. The in-service data, collected in the 2013–2014 school year, offer a comparison of mid-career teachers to preservice teachers. However, owing to revisions to the DIAB for the preservice data collection, we are able to compare responses only on a reduced set of items (and no discrete-choice task was presented in the in-service teacher data collection). The two studies share 12 items in total: nine identical, one slightly revised, and two heavily revised.

Table 5 reports the means and standard deviations of the responses to each shared item in the two samples, with a T-test for differences in means. In addition, the

bottom panel of Table 5 reports the sample means for a composite scale of the nine identical items. Compared to the preservice teachers, the in-service teachers were much more likely to report incorporative beliefs. We find a statistically significant difference favoring an incorporative stance among in-service teachers compared to the preservice teachers on 7 of the 12 items and 5 of the 9 identical items (a mean of -6.471 vs. -9.902 in the bottom panel). However, the responses of the in-service teachers still show a central tendency toward the developmental end of the spectrum

Table 5
Comparison of Responses on the DIAB:
In-service Data Versus Preservice Data: T-Tests for Differences in Means

	<i>In-service data^a</i>		<i>Preservice data^b</i>	
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
1. Choice over materials and assignments	-0.568	1.259	-1.500***	1.112
2. Do things on their own	-0.135	1.530	0.339	1.505
7. Learn same basic materials as always	0.459	1.386	-0.393**	1.510
10. Post scores to foster effort	-1.892	0.994	-2.152	1.136
11. Basic facts are essential for success in life	-0.114	1.451	-0.089	1.405
12. Long-term projects are not appropriate	-0.676	1.248	-0.661	1.254
16. Stick to established curriculum	-0.833	0.941	-1.821***	0.917
18. Identify and focus on brightest students early on	-1.222	1.149	-1.821*	1.029
22. Concentrate on students showing interest	-1.378	1.037	-1.804*	0.883
6. Encourage competition ^c	0.000	1.130	-1.286***	1.155
9. Textbooks provide the best foundation for curriculum ^d	0.459	1.282	-1.045***	1.169
15. Get sidetracked trying to connect with disengaged student ^e	-0.919	1.090	0.411***	1.511
	Composite scale scores (9 identical items)			
	Mean	SD	Min.	Max.
In-service data	-6.471	6.258	-20	6
Preservice data	-9.902	6.003	-22	6
Difference	3.431*			

^aN = 37. ^bN = 56. ^cIn-service item: "Effective instruction, where students are participating actively, usually involves a certain amount of competition to see who can come up with the best answers." ^dIn-service item: "Textbooks can be very useful because they often provide a rigorous, highly coherent overview of subject matter." ^eIn-service item: "One of the responsibilities of the school is to find a way to modify the curriculum to keep low-achieving students engaged, even if this means students miss out on some traditional material."

*p < .05. **p < .01. ***p < .001.

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on these items. For example, both samples tend to disagree that posting exam and quiz scores is an effective way to motivate students to try to be the best (Item 10) and favor long-term projects even in the younger grades (Item 12).

Discussion

In this study, we used a new battery of survey questions to measure English and language arts teachers' beliefs about learning and instruction. Building on prior research, we assumed that teachers' beliefs regarding elements of instruction lie on a continuum between developmental, student-centered beliefs and incorporative, teacher-centered beliefs. In the preservice sample, respondents reported a set of beliefs that was, on average, solidly developmental. The modal teacher expressed some level of developmental response on the majority of items. This finding was reinforced by preservice teachers' responses to a discrete-choice task between two lessons. The vast majority of respondents preferred the lesson utilizing collaborative group work and theatrical performance by students, despite reporting that this approach would entail more effort on the teachers' part. Preservice teachers felt that the developmental approach in Lesson B would be much more likely to enhance student engagement and, to a lesser but substantial extent, student learning as well.

Would in-service teachers also report such developmental beliefs? We were able to provide some evidence on this question by comparing the preservice data to a sample of in-service English and language arts teachers in western Pennsylvania. Although the items used in the in-service data were not as robust as in the preservice data, a comparison of identical items suggests that, indeed, in-service teachers, while still toward the developmental end of the spectrum on average, are more likely to hold incorporative beliefs about the role of competition in the classroom and traditional knowledge.

This snapshot of teacher beliefs among preservice and in-service teachers is limited in several ways. The in-service sample, while diverse in some ways, was all White, with almost entirely White students. Two of the three teacher education programs used in the preservice sample were housed in elite schools of education with faculty with extensive research activity. Second, the comparison across the teacher career was cross-sectional, such that the age-tenure comparison is confounded with cohort effects as well as the sampling error from comparing different teachers instead of the same teacher. In particular, the in-service teachers differ in two potentially systematic ways. First, they may have been exposed to a less richly student-centered teacher education curriculum. Second, at the point in time of the study, most of the in-service teachers had experienced many years of accountability pressure under NCLB. Both of these factors might account for the more incorporative beliefs of the in-service respondents relative to the preservice teachers. In the preservice data, we collected tracking and locating information and hope to conduct a longitudinal follow-up to remeasure beliefs as well as instructional practices, in order to begin to sort out cohort and period effects from age/experience effects.

Finally, the extensive revisions done to the DIAB between the two data collections are indicative of a fundamental limitation—the difficulty of constructing survey items to measure teacher beliefs. Only 9 of the original 19 DIAB items were retained in the second version, and 3 of the 24 items used in the preservice study had to be dropped from the analysis. The cognitive interviews revealed additional modifications that would improve the DIAB, in particular, revision of Item 7. We believe the present sample of 56 teachers in the preservice data, followed by cognitive interviews with 17 respondents, was large enough to detect any major flaws, but further data collection still seems likely to lead to ideas for further revision.

It is important to emphasize that as in prior research, while teachers' responses can be readily mapped onto an ideal-type continuum, on average, there is also much complexity and uncertainty in teacher beliefs. Only a minority of the preservice teachers espoused entirely developmental beliefs, without some inconsistency or discrepant responses. Indeed, on some items, the average response was consistent with an incorporative perspective. For example, many teachers agreed that “a teacher can get sidetracked trying to modify the curriculum to connect with disengaged students.” Disagreement with this view would seem to be a central tenet of the developmental perspective, so it is at first puzzling that otherwise developmental teachers expressed agreement. Yet, elaborated responses in the cognitive interviews revealed that the preservice teachers in the three-program data were expressing a sense of realism by agreeing that at some point, it is possible to get sidetracked, and teachers have a commitment to being broadly effective. Although some of the intrarespondent variation in these data is surely due to measurement error, we propose that even if “perfect measures” existed, respondents would still express a complex array of beliefs that is not always neatly developmental or incorporative.

We deduce several implications for teacher preparation and professional development from these limited data. First, to the extent that the DIAB is indicative of the kinds of choices teachers might really make in the classroom, those instructional choices appear highly consistent with beliefs; this study seems to support research indicating that underlying beliefs influence instructional choices. Although we recognize that teachers often act in contradiction to stated beliefs (e.g., Kelly, 2007), we nevertheless believe professional education is more likely to result in instructional change if beliefs are taken into account. Second, the profound influence on answer choices of teacher candidates' current classroom experiences revealed in the cognitive interviews supports the idea that programs that carefully sequence field experiences with university course work are more likely to influence new teacher beliefs and practices (Brouwer & Korthagen, 2005). We would note that such experiences were not a part of the preparation of the teachers Lortie interviewed in the 1960s; recent scholarship questioning the continuing relevance of a strong version of the “apprenticeship of observation” (e.g., Smagorinsky & Barnes, 2014) may reflect a generational effect of different teacher preparation protocols on beliefs. This question needs further investigation.

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Last, these data reaffirm prior descriptions of teacher beliefs as inherently complex; few teachers are uniformly student centered in their beliefs. This is especially true of in-service teachers in these data. This complexity may stem in part from an underlying plurality in learning objectives/goals. In English, for example, teachers may believe that a more teacher-centered approach is preferred in, say, a test-preparation lesson on grammar choices, while student-directed discussion of literature aids in the development of critical and independent reading of complex texts. Thus teacher education and professional development may be most successful when it acknowledges that a teacher's overall approach may reflect different views of the teacher's role and of students as learners at different times.

Notes

¹ A possible explanation for the balanced approach taken by teachers in science classrooms is that students themselves prefer a science learning environment that balances teacher-led subject matter content coverage with learner-centered activities (Chang, Hsiao, & Chang, 2011).

² A number of studies have documented changes in beliefs in response to teacher education in math and science (Hudson et al., 2012; Swars et al., 2007; Vacc & Bright, 1999).

³ See also Wehling and Charters (1969) for a description of early studies using the Minnesota Teacher Attitude Inventory (Cook, Leeds, & Callis, 1951).

⁴ An online system developed by Gallup has been available since 2002 (Delli, 2010), which builds off of Gallup's in-person perceiver-style interview protocol (TPI). Although ratings on the TPI have been found to correlate modestly with subsequent performance ratings, many of the TPI domains had low internal consistencies (Young & Delli, 2003).

⁵ The surveys were administered as paper-and-pencil in-person surveys, with the exception of the Mid-Atlantic university, where it was only possible to deliver the surveys in person with a postage-paid return envelope. Nine of the 17 nonrespondents were from the Mid-Atlantic University, despite a concerted effort at nonresponse conversion.

⁶ In preliminary analyses, we also considered a collapsed, -1 to 1 coding (i.e., all agreement or disagreement responses receive the same numeric value). Although the results are similar, our overall impression is that variation in responses within general agreement or disagreement provides meaningful insight into the strength of the respondents' beliefs.

⁷ For example, "Do you want to be rich and famous?" is really two questions, one about money, one about fame (Fowler, 2002).

⁸ This is also likely why some respondents report that answering the DIAB was frustrating at times.

⁹ We suspect that Items 13 and 20 were simply error ridden, while the belief measured in Item 23 was so widely held, at least as a matter of principle, even among incorporative teachers, that it has limited utility.

¹⁰ Forty-three of the 56 (76.8%) respondents agreed to participate in the cognitive interviews. Interviews were completed in November 2014.

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Appendix A

Full DIAB, 2nd Edition

1. Students learn best when they have a great deal of choice over classroom materials and assignments.
2. Group projects and assignments can be useful, but ultimately, to be successful in their work career students need to learn in school how to do things on their own.
3. Students should study classic texts in depth, even if they struggle with the language.
4. Teachers should encourage class discussions, where students talk with each other as well as to the teacher, even if this means the class is less orderly.
5. Students need to be well-versed in the basics of grammar and structure before getting involved in creative projects.
6. Effective instruction should involve a certain amount of competition to see who can come up with the best answers.
7. Students need exposure to new technology, but students today should be learning the same basic material as always.
8. No matter how good a teacher is at presenting information, students will not really learn it until they have a chance to use it in interaction with other learners.
9. When a good textbook is available, it will provide the best foundation for the curriculum.
10. Students are highly motivated to perform well in front of others on tests and assignments, so teachers should post exam and quiz scores to encourage students to try to be the best.
11. Students need to know a certain amount of “basic facts” in order to succeed in life, even if they may seem a little outdated or esoteric.
12. Long-term projects are seldom appropriate in the younger grades, because students need to develop basic skills to build from.
13. Teachers need to publicly acknowledge students who are doing exemplary work.
14. It’s important to spend time helping students connect to material, even if that means covering less content.
15. A teacher can get sidetracked trying to modify the curriculum to connect with disengaged students.
16. Students can explore topics they are interested in after school or on the weekends—when they are in school, teachers should stick closely to the established curriculum.
17. When a capable teacher prepares a unit of study, most difficulties in learning material can usually be traced to a lack of student effort.
18. In today’s economy, it is especially important to identify the very brightest students early on, so that they can be given challenging instructional content, even if this means other students may miss out on some opportunities for enrichment.
19. Because order is critical to a productive learning environment, a teacher must perfect her

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- disciplinary routines before introducing new activities that can disrupt her classroom.
20. Spending a lot of time studying classic texts does not prepare students for either their personal or working lives.
 21. Even though some educators promote class discussions where students talk with each other as well as to the teacher, a teacher's first responsibility is to maintain order in the classroom.
 22. If a teacher is going to make the best use of their time and energy, it makes sense for them to concentrate the most on students who show a great deal of interest in school.
 23. To reach the greatest number of students, teachers need to approach academic concepts using a variety of materials and activities.
 24. Students may enjoy collaborating with each other on class projects, but the teacher can most efficiently convey course content through lecture and Q&A.

Note. Respondents were asked to choose one of the following answers to each question: absolutely agree, strongly agree, agree, disagree, strongly disagree, or absolutely disagree.

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Appendix B

Discrete-Choice Task

The following questions present you with a choice task between two hypothetical lessons. In this literature lesson for ninth graders, you will spend 1–2 days of a unit on *Romeo and Juliet*, focusing on Act 4, Scene 3 (the scene where Juliet drinks the sleeping potion). The lesson focuses on drawing inferences about Juliet's character using evidence from the text.

Consider the two lessons, which are followed by questions about your choice between the two lessons:

Lesson A

Lesson B

Overall task

Analyze the soliloquy in Act 4, Scene 3 in order to show how particular lines and dialogue reveal aspects of Juliet's character.	Analyze the soliloquy in Act 4, Scene 3 in order to show how particular lines and dialogue reveal aspects of Juliet's character.
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Directions

Students will read the soliloquy closely and write a persuasive essay making the case, "In this scene, Juliet shows that she is torn between two desires." The essay will include quotes as evidence for the thesis.	Students will work in groups of three to paraphrase Juliet's soliloquy and act out the different emotions that reveal her inner conflicts.
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Steps

Whole class: Play the scene from the classic Zeffirelli (1968) film of <i>Romeo and Juliet</i> . Use a question-and-answer session to check to see that students understand the scene.	Individual work: Have students write in their journals: Has there ever been a time when you had to make a really tough decision? What were the choices you had, and how did you finally decide to act?
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Independent work: Have students read the soliloquy closely, using their glossaries to paraphrase each line in modern English. They should ask themselves: What things does Juliet want/desire? Are any of these things in conflict? What does Juliet choose between?	Collaborative work: Divide class into groups of three. Give each group Juliet's soliloquy, and have them mark it up into sections, identifying Juliet's feelings and point of view as it changes over the 45 lines (e.g., she is determined to kill herself if the potion does not work).
Independent work: Students will then plan and compose a four-paragraph essay, giving the background for the soliloquy, explaining the two main desires Juliet is torn between, and ending with how she resolves the conflict and decides what to do.	Collaborative work: Have the students in each group devise a performance of the soliloquy where they take turns acting out the different "voices" of Juliet in the scene. Provide time to practice so they can take on the emotion of each section. Groups have the choice of performing the original lines or paraphrasing into modern English.
Collaborative work: Students trade essays with a classmate, checking each other's work for clarity, completeness, and smooth transitions.	Whole class: Groups take turns performing "their" soliloquy. Observing groups take notes on the different interpretations.
Students proofread and print their essay to hand in.	Whole class: Play two different filmed versions of the scene (e.g., the Zeffirelli [1968] version with Olivia Hussey and the Luhrmann [1996] version with Claire Danes as Juliet). Have students discuss these interpretations of Juliet in relation to their own reading of the scene.

Questions about each lesson [*response categories*]:

1. Although neither lesson may represent an ideal approach, which of the two lessons are you most likely to deliver to your students? [I much prefer Lesson A; I somewhat prefer Lesson A; I somewhat prefer Lesson B; I much prefer Lesson B]

Of the lessons considered here, which do you think would be more likely to:

2. enhance student learning? [Definitely Lesson A; Probably Lesson A; Probably Lesson B; Definitely Lesson B]
3. maximize student engagement? [Definitely Lesson A; Probably Lesson A; Probably Lesson B; Definitely Lesson B]
4. Of the lessons considered here, which do you think requires more effort on the part of the teacher? [Definitely Lesson A; Probably Lesson A; Probably Lesson B; Definitely Lesson B]
5. Considering Lessons A and B, and your answers to the questions above, please describe the most important reason(s) you selected your preferred lesson. [open-ended response]