Communicating about Student Motivation

RESEARCH METHODS AND SAMPLE COMPOSITION

This supplement provides detailed information on the research that informs FrameWorks' strategic brief on student motivation. Below, we outline the research conducted with scientific experts, members of the public, and education practitioners that provides the evidence base for the brief, describing the methods used and sample composition.

The Untranslated Expert Story of Student Motivation

To develop an effective strategy for communicating about an issue, it's necessary to identify a set of key ideas to get across. For this project, these ideas were garnered from scientific experts on student motivation. To explore experts' knowledge about core principles of student motivation, FrameWorks researchers conducted 12 one-hour interviews with researchers who have expertise in student motivation across the disciplines of neurobiology, social psychology, educational psychology, sociology, and economics, as well as a review of relevant literature in these disciplines. Interviews were conducted between February and March 2019 and, with participants' permission, were recorded and transcribed for analysis. FrameWorks compiled the list of interviewees in collaboration with the Mindset Scholars Network. To refine the expert story, FrameWorks conducted three feedback sessions with 10 researchers (one 90-minute session plus two 30-minute sessions).

Expert interviews consisted of a series of probing questions designed to capture expert understandings about what student motivation is, which factors influence student motivation and how, what the consequences of student motivation are, and what can be done to support student motivation. In each interview, the researcher conducting the interview used a series of prompts and hypothetical scenarios to challenge experts to explain their research, experience, and perspective; break down complicated relationships; and simplify complex

concepts. Interviews were semi-structured in the sense that, in addition to pre-set questions, FrameWorks researchers repeatedly asked for elaboration and clarification and encouraged experts to expand on concepts they identified as particularly important.

Analysis employed a basic grounded theory approach.[1] A FrameWorks researcher identified and inductively categorized common themes that emerged in each interview and across the sample. This procedure resulted in a refined set of themes, which researchers supplemented with a review of materials from relevant literature.

A draft of the untranslated story, which distilled key ideas from experts, was shared and discussed in the three feedback sessions with experts in the field in June 2019. These sessions included a mix of experts who had already been interviewed and experts new to the process, who were identified in collaboration with the Mindset Scholars Network. Based on these sessions, FrameWorks researchers refined and finalized the untranslated story.

Public and Practitioner Understandings of Student Motivation

A primary goal of this research was to capture the various commonly held assumptions, or cultural models, that members of the public and education practitioners use to make sense of student motivation and issues related to this topic. Cultural models are cognitive shortcuts to understanding: ways of interpreting, organizing, and making meaning of the world around us that are shaped through years of experience and expectations, and by the beliefs and values embedded in our culture.[2] These are ways of thinking that are available to all members of a culture—be it a public culture or a professional culture— although different models may be activated at different times. Individuals belong to multiple cultures, each of which include multiple models (e.g., professionals participate in professional cultures as well as public cultures at multiple levels, including national and subgroup cultures). In this project, our goal was to explore the models available in professional cultures and American public culture, but it is important to acknowledge that individuals also have access to other models from other cultures in which they participate.

In exploring cultural models, we are looking to identify *how* people think, rather than *what* they think. Cultural models findings thus differ from public opinion research, which documents people's surface-level responses to questions. By understanding the deep, often tacit assumptions that structure how people think about student motivation, we are able to understand the obstacles that prevent people from accessing the expert perspective described in the untranslated

story. We are also able to identify opportunities that communicators can take advantage of—existing ways of thinking that can help people arrive at a fuller understanding of the issue.

To identify the cultural models that the public and educators use to think about issues related to student motivation, FrameWorks researchers began with a review of FrameWorks' past research on education,[3] and then conducted a set of new interviews with members of the public and educators. FrameWorks conducted 35 in-person, in-depth interviews in Baltimore, MD; Houston, TX; and Minneapolis, MN, in April 2019. These locations were chosen for regional variation as well as to enable variation along key demographic factors (see below). Across these locations, FrameWorks conducted 15 interviews with members of the public (5 in each location), 10 interviews with sixth–twelfth-grade educators (3–4 in each location), and 10 interviews with postsecondary educators (3–4 in each location).

Cultural models interviews are one-on-one, semi-structured interviews lasting approximately two hours. These interviews are designed to allow researchers to capture broad sets of assumptions, or cultural models, that participants use to make sense of a concept or topic area—in this case, issues related to student motivation and how to support it. Interviews consisted of a series of open-ended questions covering participants' thinking about school and learning in broad terms, before focusing more specifically on their thoughts about student motivation. The interviews touched on what it means for students to feel motivated at school, what shapes student motivation, the effects of student motivation, and what can be done to support student motivation. Researchers approached each interview with this set of topics to cover, but allowed participants to determine the direction and nature of the discussion. All interviews were recorded and transcribed, with participants' written consent.

All participants were recruited by a professional marketing firm and selected to represent variation along several dimensions, which were identified in consultation with the Mindset Scholars Network. For all participants, this included age, gender, race and ethnicity, educational background, income, residential location, political views (as self-reported during the screening process), and family situation (e.g., married or single; with or without children currently in school; and age of children currently in school). In addition to these demographics, sixth–twelfth-grade educators were also selected to represent variation in the grade level they teach, years of experience teaching at the sixth–twelfth-grade levels, tenure status, primary subject area of teaching, and the socioeconomic composition of the student body at their institution as measured by the percentage of students receiving a free or reduced price meal. In addition to the demographics used to recruit members of the public, postsecondary educators were also selected to represent variation in years of experience teaching at the postsecondary level, tenure status, primary subject area of teaching, the type of institution where they teach (i.e., two- or four-year

institutions, and public or private institution), and the socioeconomic composition of the student body at their institution as measured by the percentage of students receiving a Pell Grant.

The sample of members of the public included eight women and seven men. Of the 15 participants, seven self-identified as "White or Caucasian," three as "Black or African American," three as "Hispanic or Latino," one as "Asian," and one as "Alaska native." Seven participants described their political views as "liberal," four as "conservative," and four as "middle of the road." Nine participants reported living in a suburban or rural area, and six in an urban area. The mean age of the sample was 43.5 years old, with an age range of 23 to 66. Three participants had a high school degree or less; five had completed some college, three had graduated from college; and four had graduate degrees. Five participants reported a total annual household income of $25,000–$49,999, six reported an income of $50,000–$99,999, and four reported an income of $100,000 or more. 12 were married, and 10 were parents of at least one child currently attending school.

The sample of sixth–twelfth-grade educators all taught at traditional public schools. Of the 10 participants, three taught at the sixth–eighth-grade level, four at the ninth–tenth-grade level, and three at the eleventh–twelfth-grade level. Five participants taught mathematics; two taught English, reading, or language arts; two taught social studies, history, or the social sciences; and one taught health and physical education. One participant also taught advanced placement or college preparatory courses. Five participants had three–nine years of experience teaching and five had 10–20 years of experience; seven participants were tenured. Three participants taught at institutions located in an urban area, six in a suburban location, and one in a rural area. Two participants taught at institutions where less than 25 percent of students receive a free or reduced-price meal, four where 25 to 75 percent of students receive a free or reduced-price meal, and four where more than 75 percent of students receive a free or reduced-price meal. The sample included six women and four men. Of the 10 participants, six self-identified as "White or Caucasian," three as "Black or African American," and one as "Hispanic or Latino." Five participants described their political views as "liberal," one as "conservative," and four as "middle of the road." The mean age of the sample was 45.6 years old, with an age range of 30 to 66. Three participants had a bachelor's degree and seven had a master's degree. Five participants reported a total annual household income of $50,000–$99,999, and five reported an income of $100,000 or more. Six were married, and four were parents of at least one child currently attending school.

The sample of postsecondary educators included five who taught at two-year or community colleges and five who taught at four-year colleges or universities. Of the 10 participants, seven taught at public institutions and three at private institutions. Three participants taught in the arts and humanities, three taught in the social sciences, two taught in mathematics, and two taught professional

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studies or development. Four participants had three–nine years of experience teaching, three had 10–20 years of experience, and three had 20 or more years of experience. Two participants were tenured, one participant was tenure track but not yet tenured, and seven participants were non-tenure track faculty. Six participants taught at institutions located in an urban area, two in a suburban area, and two in a rural area. Two participants taught at institutions where less than 25 percent of students receive a Pell Grant, seven where 25 to 65 percent of students receive a Pell Grant, and one where more than 65 percent of students receive a Pell Grant. The sample included five women and five men. Of the 10 participants, seven self-identified as "White or Caucasian," and three as "Black or African American." Six participants described their political views as "liberal" and four as "middle of the road." The mean age of the sample was 46.6 years old, with an age range of 35 to 58. Seven had a master's degree and three participants had a PhD. One participant reported a total annual household income of $50,000–$99,999, and nine reported an income of $100,000 or more. Nine were married, and eight were parents of at least one child currently attending school.

Researchers began cultural models analysis by reviewing past research on education. This review ensured that researchers were attuned to possible models and patterns that might arise in interviews. To analyze the interviews, researchers used analytical techniques from cognitive and linguistic anthropology to examine how participants understood issues related to student motivation.[4] First, researchers identified common ways of talking across the sample to reveal assumptions, relationships, logical steps, and connections that were commonly made but taken for granted throughout an individual's talk and across the set of interviews. In short, the analysis involved discerning patterns in both what participants said (i.e., how they related, explained, and understood things) and what they did not say (i.e., assumptions and implied relationships). In many cases, analysis revealed conflicting models that people brought to bear on the same issue. In such cases, one of the conflicting ways of understanding was typically found to be dominant over the other, in that it more consistently and deeply shaped participants' thinking (in other words, participants generally drew on this model with greater frequency and relied more heavily on this model in arriving at conclusions). To ensure consistency, researchers met after an initial round of coding and analysis, comparing and processing initial findings. Researchers then went back to transcripts to revisit differences and explore questions that arose through this comparison. As part of this process, researchers compared emerging findings to the findings from previous cultural models research, using this as a check to make sure that they had not missed or misunderstood any important models. Researchers then came back together and arrived at a synthesized set of findings.

Analysis was centered on ways of understanding that were shared across participants. Cultural models research is designed to identify common ways of thinking that can be identified across a sample. It is not designed

to identify differences in the understandings of various demographic, ideological, or regional groups, which would be an inappropriate use of the method and its sampling frame. In addition to identifying the common cultural models present within each sample, researchers looked for commonalities across samples to identify cultural models shared by the public and educators. While there is no hard and fast rule about the percentage used to identify what counts as "shared," models reported are typically found in the large majority of interviews. Models found in a smaller percentage of interviews are only reported if there is a clear reason why these models only appeared in a limited set of interviews (e.g., a particular issue was only explored in some interviews but whenever it was discussed, the model arose in participants' talk).

Endnotes

1. Glaser, B. & Strauss, A. (1967). *The discovery of grounded theory: Strategies for qualitative research (observations).* Chicago, IL: Aldine; Strauss, A. & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques.* Newbury Park, CA: Sage.

2. Shore, B. (1998). *Culture in mind: Cognition, culture, and the problem of meaning.* Oxford University Press.

3. This included the following reports: Bales, S.N., & O'Neil, M. (Eds.). (2014). *Putting it back together again: Reframing education using a core story approach: A FrameWorks MessageMemo.* Washington, DC: FrameWorks Institute.; Baran, M., Lindland, E., Haydon, A., & Kendall-Taylor, N. (2013). *"The whole socioeconomic trickle-down": Mapping the gaps on disparities in education.* Washington, DC: FrameWorks Institute; Lindland, E., Kendall-Taylor, N., Baran, M., O'Neil, M., & Simon, A. (2012). *Mapping the gaps on skills and learning: A core story of education report.* Washington, DC: FrameWorks Institute; Pineau, M.G., L'Hôte, E., Davis, C., & Volmert, A. (2018). *Beyond caring: Mapping the gaps between expert, public, practitioner, and policymaker Understandings of family, school, and community engagement.* Washington, DC: FrameWorks Institute.

4. Quinn, N. (Ed.). (2005). *Finding culture in talk: A collection of methods.* New York, NY: Palgrave Macmillan.

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