The R Street Institute’s Character Education Series is a collection of case studies that highlight particular programs around the country that are finding unique ways to fuse character education into their curriculums and pedagogies. Although each of the programs is unique and has its own nuanced approach, in the aggregate, these studies show that the desire for schools—at all levels—to strive for excellence and to produce good people and citizens is alive and well—and growing.
Foreword

The other studies in this R Street series on character education deal with a variety of institutions that explicitly put the development of student virtue at the center of their missions. And, of course, as author Ashley Berner points out in the study that follows: “All schools impart certain values by the practices they allow and those they discourage.” Whether implicit or explicit, however, the nature and success of character education is very difficult to determine because character is a matter of long-term performance. As American writer and philosopher Will Durant summarized of Aristotle’s thinking on the topic: “We are what we repeatedly do.”

But difficult does not mean impossible, and this study looks at an innovative project, the University of Arkansas’ Charassein Character Assessment Initiative, that attempts to measure the efficacy of character education using the most innovative and rigorous methods. Looking at topics as diffuse as holocaust education and college visits, Charassein researchers have conducted randomized controlled trials on various interventions intended to impact character. Going further, they developed a novel research method involving the analysis of test meta data on “rapid guessing” and “careless answers” to identify elements of character. While the institute’s specific findings are only starting to find their way into press, Charassein research tools have already created enormously promising ways to develop more effective character education programs throughout America.

— Eli Lehrer, President, R Street Institute
Introduction

Is formal education about more than the attainment of knowledge? Philosophers and educators have debated this question since (at least) ancient Athens. In the modern world, policymakers have largely agreed that schools must not only build intellectual capacity, but also develop the character of the young people in their care. For example, democratic nations expect schools to prepare the next generation for civic engagement—to develop the knowledge, skills and attachments necessary to promulgate democratic life. In the twentieth century, American policymakers also emphasized the role of schools in promoting non-academic outcomes, including: social efficiency, social adjustment and individualism. The 1990s called the non-academic elements of schooling “character education.” Today, many school systems, philanthropic organizations and think tanks use “non-cognitives” or “social and emotional learning” instead. Scholars may disagree on the terminology, but the field generally agrees that formal education engages—indeed, must engage—in shaping students’ academic and non-academic development.

Despite American education’s long-standing expectation for schools to be more than merely academic institutions, it can be difficult to place “character formation” and “schools” in the same conversation. However, discussing character and schools forces us to address the complications of definition, method and measurement. The Charassein Character Assessment Initiative (Charassein) was developed to tackle these areas within education research through the use of more traditional research techniques.

1 See, e.g., James Arthur et al., *Teaching Character and Virtue in Schools* (Routledge, 2017), pp. 1-12; For further reading on the relevance of Aristotle’s philosophy to modern education, see Kristján Kristjánsson, *Aristotelian Character Education* (Routledge, 2015).
5 The Charassein refers to non-academic outcomes as “character,” and for the purposes of this paper we follow suit.
We do not all mean the same thing when we use the term “character.” Particular traditions—whether based in philosophy, theology or economics—assign different moral weights to the same behavior. When we talk about character, then, it is important to articulate which ideal is meant by the term.

From an empirical perspective, certain traits or skills are seen as early indicators of long-term individual attainment, workforce participation and physical wellbeing. As one scholar summarized:

Character skills such as grit, self-control and open mindedness, or what economists call non-cognitive skills, have been found to be a fundamental determinant of education, labor and even health outcomes from childhood all the way until adulthood, even after controlling for cognitive ability.\(^6\)

Such traits, named in this paper as “character traits,” can be activated most readily during childhood and adolescence, therefore, U.S. schools should to prioritize their development.\(^7\)


\(^7\) See, e.g., Jenny Nagaoka et al., “Foundations for Young Adult Success: A Developmental Framework,” University of Chicago Consortium on Chicago School Research, June 2015.; Alanna Bjorklund-Young, “What Do We Know About Developing Students’ Non-Cognitive Skills?”, Johns Hopkins Institute for Education Policy, June 2016.; “From a Nation at Risk to a Nation at Hope.”

From an empirical perspective, certain traits or skills are seen as early indicators of long-term individual attainment, workforce participation and physical wellbeing.
Method

Previous studies specifically point to the importance of coherent school cultures in long-term character development. Additionally, research on the sustained impact of generic programming suggests that it is susceptible to failure if not tied to deeper, institutional norms and community practices. However, the question of what methods schools should use to foster the desired character traits in their students remains. When developing and assessing character curriculum, schools must grapple with whether character is taught explicitly or by example, and to what extent values should be woven into the fabric of the school culture.

Measurement

The next challenge is how to measure the success of the methods implemented to cultivate certain character traits in students. Character, by definition, is fairly stable; it is visible in patterns of behavior rather than in isolated moments. In this light, some of the most credible studies in the field use alumni data and “back-map” the contours of a school’s effect through observed adult behavior.

However, if we want to examine real-time signposts, there are at least two potential ways to gather data. The first is to assess a school as a whole: to examine the presence, or absence, of factors that research suggests have a long-term impact on academic, civic, social and emotional outcomes. For this purpose, many schools and systems use climate or culture surveys.

The second approach is to assess whether individual students seem to be developing the desirable traits. This brings us to Charassein’s work. The initiative is named after the Greek word for “character,” which means “etched” or “engraved”—that is, something relatively stable, not transient. The Charassein seeks to identify interventions that successfully develop important character traits, and to design innovative methods to measure them.

8 See, e.g., Anthony S. Bryk et al., Catholic Schools and the Common Good (Harvard University Press, 1993).
9 See, e.g., James Davison Hunter, The Death of Character: Moral Education in an Age without Good or Evil (Basic Books, 2000).
According to founder Dr. Gema Zamarro: “There are several approaches commonly used in the field to assess character skills: students’ grades and behavioral reports, students’ self-reported measures and performance task measures. Each can be problematic for scientific research.”

For example, the use of grades and behavioral reports as a form of measurement may point to concrete indicators of the presence of perseverance and self-control. However, researchers seldom have access to such data. And high-stakes accountability measures can tempt administrators to “game” the data to avoid negative consequences by “reshaping the test pool” through disqualifying low-performing students and thus artificially boosting scores.

Alternatively, self-reported measures rely on surveys that ask students for self-assessments on statements such as: “I am a hard worker;” “I am diligent;” or “Setbacks don’t discourage me.” As helpful as self-reports may be, they are shown to be influenced by two kinds of biases: the social desirability bias (i.e., respondents provide socially desirable answers), and reference group bias (i.e., social differences between subgroups of students—rather than concrete differences in skills—influence results).

The final approach uses performance tasks, which are more robust than self-reports, but also imperfect. For example, the “Marshmallow Test” designed in the 1970s by clinical psychologists to examine young children's capacity for restraint and delayed gratification. In this experiment, the researchers would leave a child alone in a room with a visible, available marshmallow; they would tell the child that if they could resist eating the marshmallow while the researcher was out of the room, they would be given an additional marshmallow when the researcher returned. The researcher would then leave the room. The outcome of interest was

12 Author interview with Gema Zamarro (telephone), March 12, 2020.
14 Zamarro interview.
whether or not the child could delay the instant gratification of consuming the marshmallow to wait for a larger reward after a period of time.\textsuperscript{15} While performance tasks do provide information about participants’ skills, they may not translate to non-laboratory contexts and some performance tasks have the disadvantage of being non-repeatable with the same participants.\textsuperscript{16}

Zamarro notes: “Schools have a feeling that we need to change the focus from core subjects alone to a more holistic view of kids. The movement [toward non-academic skills] is going very fast, and our ability to research it is behind.”\textsuperscript{17} The Charassein’s long-term aim, then, is to keep the work of character development front and center in school research. Doctoral fellow Matthew Lee put it this way: “We want to broaden the range of what we are willing to consider outside of test scores alone, and to talk about other ways in which education is impactful for students.”\textsuperscript{18}

\begin{quote}
\textbf{""}We want to broaden the range of what we are willing to consider outside of test scores alone, and to talk about other ways in which education is impactful for students."
\end{quote}

Dr. Gema Zamarro


\textsuperscript{17} Zamarro interview.

\textsuperscript{18} Author interview with Matthew Lee (telephone), May 28, 2020.
The scholars at the Charassein focused first on the role of specific educational experiences in shaping students’ non-academic behaviors. Two studies are reported below: the impact of experiential holocaust education on high schoolers and of college visits on middle schoolers. In both cases, research teams applied rigorous research designs to previously under-researched interventions, and used conventional evaluation tools to assess impact on participants.

**Holocaust Education**

There is some evidence that learning about the Holocaust through classroom discussion and assigned readings has a positive impact on young people’s citizenship behaviors, such as their tolerance for minority groups or their willingness to stand up for others.\(^\text{19}\) Small studies of other interventions—such as visits to memorial sites or Holocaust museums—have shown null to slightly positive results.\(^\text{20}\)

In 2018, the Charassein’s research team evaluated the impact of attending the Arkansas Holocaust Education Conference on high schoolers’ knowledge about the Holocaust and their civic attitudes. The conference is an all-day event for educators and students that includes keynote addresses and break-out discussion groups on historical and philosophical topics. The research team secured 50 tickets to the conference, and recruited 100 participants from two local high schools. The team randomly selected half of the participants to attend. This method allowed the team to conduct a Randomized Control Trial (RCT). The randomized placement of participants into a “treatment” group and a “control” group gives researchers confidence that their findings are causal rather than the result of selection bias.

Both groups of students participated in pre- and post-surveys, in which they answered knowledge-based questions about the Holocaust and self-reported their willingness to defend the civil rights of others.\(^\text{21}\) While the study was innovative in its assessment of the impact of direct contact with a holocaust survivor, its measures of impact were traditional, in its reliance upon self-reports via student surveys.


\(^{20}\) Ibid.

\(^{21}\) Ibid., p. 14.
As expected, students who had been randomly assigned to attend the Holocaust Conference were more knowledgeable about the Holocaust and more likely to stand up on behalf of others than their matched peers. While all students demonstrated improvement, students of color exhibited more willingness than their white peers to stand up for others.  

Suki Highers, one of the high school teachers whose students participated in the study, observed additional changes in her students:

One of the really interesting things was to hear from kids who had been dragging their feet, especially kids who have a lot of economic privilege. They heard from holocaust survivors—and it sparked an interest in them that persisted throughout [their end-of-year projects].

Highers also noted students’ anger at the school system for not having taught them more about the Holocaust: “They couldn’t believe it had happened and that they hadn’t known about it. They felt guilty for not having known, and angry at the school system for not having taught them.”

The Charassein research team has won a grant to replicate the study. They are also keen to test additional approaches to holocaust education. Doing so is time-sensitive: Survivors of the Holocaust are nearing the end of their lives, and in-person experiences will no longer be possible.

The research team is designing studies to find out if virtual experiences will reap similar results. Multiple resources are in the process of capturing data for these purposes. As Lee describes:

The Shoah Project has recorded hundreds—thousands—of hours of footage of high-quality interviews to preserve survivors’ experiences [...] The Illinois Holocaust Museum Education Center has integrated similar interviews with interactive software that allows students to interact via Artificial Intelligence technology.

Molly Beck, Lee’s colleague on the project, raises a second area of interest to explore: the impact of such programs on teachers who participate:

22 Lee and Beck.
23 Author interview with Suki Highers (telephone), April 14, 2020.
24 Ibid.
25 Lee interview.
Some of the conference sessions are for teachers, to help them talk about this incredibly difficult event in the classroom. A self-report analysis that asks them to give concrete, real-life examples of how the experience influenced their curriculum or lesson plans would be really interesting—as would classroom observations before and after the conference.26

As a former teacher, Beck notes that few teacher preparation programs provide training on how to lead difficult discussions, despite the research showing that an “open classroom climate” has an independent, positive impact on civic outcomes.27 She hopes to expand the model of holocaust education to interventions that address other periods of immense, institutionalized suffering—especially in the history of the United States. She plans to explore the impact of curriculum on Japanese internment, the Trail of Tears and human bondage before the Civil War for students and teachers.28

**College Visits**

Many programs for first-generation teenagers include college campus visits as strategies to familiarize them with university life and reinforce their academic identities.29 However, the impact of campus trips has not been studied extensively. The question of college access became particularly important for the team at the University of Arkansas when they learned that only half of local eighth-graders claimed to have visited the campus.30 Charassein’s scholars designed an RCT of several hundred eighth-graders in 15 local middle schools. One of Zamarro’s PhD students, Elise Swanson, took the lead.

To recruit teachers and students, Swanson looked at a list of middle schools within a two-hour driving distance, and focused on those with the highest populations of first-generation students.31 The research team randomly assigned students into two groups: a control group and a treatment group. The control group received informational packets about colleges, while the treatment group took three all-day trips to the University of Arkansas in addition to the informational materials. These visits were introductory (a campus tour and sessions about college

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26 Author interview with Molly Beck (telephone), June 1, 2020.
28 Beck interview.
31 Author interview with Elise Swanson (telephone), April 24, 2020.
success), academic (including specific activities within various departments) and social (such as attending a sports event). Students also ate lunch on campus and visited dorm rooms. The costs of the project—including transportation, meals and substitutes for the teachers who attended with their students—were covered by the University of Arkansas, and the visits took place in the 2017-18 academic year.\textsuperscript{32}

Early findings suggest that students who visited campus demonstrated more knowledge about college, were more likely to have spoken with their school's personnel about college and were slightly more likely to enroll in advanced coursework in ninth grade than those who had not. This last finding was not statistically significant and thus not definitively causal.\textsuperscript{33} There was no statistically significant difference in other outcomes, such as the intention to attend a four-year college or to talk with their parents about higher education.\textsuperscript{34}

The research team plans to follow these students through high school to assess longer-term impact. In the meantime, staff who participated in the visits saw a difference in individual students. Taylor Scott, an eighth-grade counselor, commented on what she observed in students who had never been to the University before:

\begin{quote}
One boy flat out said that the only reason he wanted to go was because of the food. I had worked a lot with him because he was failing multiple classes; he didn't want to do the work. After his first visit, he turned it around; his grades, attendance and attitude improved.\textsuperscript{35}
\end{quote}

The impact on students inspired Scott and fellow teachers to propose a grant to take every eighth-grade student to the university's campus in 2019. Although it wasn't the same in-depth experience, students were able to take the admissions tour, visit a dorm room and eat in the university dining halls.\textsuperscript{36} The 2019 trip was funded by the Fayetteville Public Education Foundation.

Both the holocaust education and the college visit studies were among the first to study such educational experiences using the RCT method. These projects used conventional methods to assess the impact on participants' character traits.

\textsuperscript{32} Ibid.
\textsuperscript{34} Ibid.
\textsuperscript{35} Author interview with Taylor Scott (telephone), April 21, 2020.
\textsuperscript{36} Ibid.
Novel Method: Naturally Occurring Indicators

Another aspect of the Charassein's work is to design and field-test new ways to study character. Collin Hitt and Albert Cheng worked with Zamarro to develop a novel window into character formation: assessment metadata.

Cheng and Hitt focused on the research question: Could large datasets of academic and non-academic tests offer clues about character? Specifically, they wanted to investigate if scholars could plumb the Organization for Economic Cooperation and Development (OECD)'s Programme for International Student Assessment (PISA) data or the Measures of Effective Teaching (MET) project, for early indicators of long-term behaviors.37

According to Hitt:

We realized that surveys and assessments are also [performance] tasks [...] Are students skipping questions? Paying close enough attention? Showing perseverance in finishing the test? Could we cross-check with adult outcomes and with other studies of social and emotional learning? 38

Furthermore, because indicators such as non-response and non-completion did not form part of the original assessments (PISA doesn’t grade students on finishing the test), assessment engagement data would have the additional advantage of circumventing the social desirability bias present in self-reports.

In what may be the most novel aspect of the Charassein's work, Hitt and Cheng used large sets of assessment data to compare students’ effort on the exam, accompanying student surveys and their exam scores. To measure 'effort,' the team designed what they call a “careless answer” index from such data as variable answers on similar questions, used in tandem with the number of questions students did not attempt to answer. They then looked for patterns between these measures of effort and long-term outcomes such as high school completion, workforce participation and earnings, and with other measures of non-academic skills such as grit and self-control.39

This approach proved remarkably fruitful. The team found that item non-response rates from Michigan Student Data Systems negatively correlated with on-time

38 Author interview with Collin Hitt (telephone), March 18, 2020.
graduation, and that careless responses on the Norwest Evaluation Association (NWEA) Measures of Academic Progress (MAP) tests corresponded to higher rates of student absences, suspension and detention, as well as to lower GPAs. They also found that an increase in students’ item non-response rates on the National Educational Longitudinal Study corresponded to lower self-reports of conscientiousness—another important marker of character development. Additionally, they found that careless answers on a large survey of high school seniors correlated with a decrease in self-management and grit indicators.\textsuperscript{40} Using large, naturally occurring datasets, in other words, shows significant promise in how we evaluate the acquisition of the traits that matter for long-term educational success and economic participation.

The team also applied this novel method to the PISA and MET studies, to meaningful effect. In the case of PISA’s academic tests and companion student surveys, they found large, country-level variations in their measures of student effort that counted for “between 32 and 38 percent of the variation in test scores across countries.”\textsuperscript{41} This is non-trivial; the United States’ PISA scores fall well below their peers at every income level.\textsuperscript{42} In the case of the MET project, which had surveyed students and teachers in the same classrooms, Cheng used the method to find correlations between student and teacher conscientiousness—teachers who demonstrated conscientiousness on the survey had an effect on their students’ conscientiousness scores. Similarly, the same student could present as more conscientious when being taught by a teacher who also presented as conscientious, and as less conscientious when being taught by a teacher who was also less conscientious.\textsuperscript{43} This suggests that educators’ behaviors play a role in young people’s acquisition of the traits that generate long-term success.

Such methods are in their infancy; the team only started to publish peer-reviewed articles in 2016. But what Cheng called the “work of a pioneer” has led to innovations that will influence how the field understands character, and the tools we use to measure its development.\textsuperscript{44}

\textsuperscript{40} Ibid., p. 471.
\textsuperscript{42} Eric A. Hanushek et al., “Not Just the Problems of Other People’s Children: U.S. Student Performance in Global Perspective” Harvard University Kennedy School, May 2014.
\textsuperscript{44} Author interview with Albert Cheng (telephone), April 8, 2020.
Character skills [...] have been found to be a fundamental determinant of education, labor and even health outcomes from childhood all the way until adulthood, even after controlling for cognitive ability.
The Charassein has influenced the field of character education in at least two concrete ways. First, this initiative has brought rigorous research methods to important—but under-researched—interventions that may have a long-term effect on students’ non-academic capacities. Second, it has enabled the development of new research methods that may help us understand the relationship between academic and non-academic skills, the influence of teachers’ characteristic behavior on that of their students and specific indicators that can predict important, long-term outcomes such as academic attainment and workforce participation. As psychologist Angela Duckworth notes: “[While] all measures are flawed, [the] careless response as a proxy for self-control or grit is interesting. This approach has the benefit of not being self-reported.”45 The preliminary findings and publications produced by the Charassein are already demonstrating meaningful impact on the field, specifically on public policy.

The final challenge associated with character development and schools extends beyond appropriate measurement and into the question of what to do with the findings. The Every Student Succeeds Act (ESSA), which became law in 2015, allows states to include non-academic measures in their evaluation of school performance. Many states now track student absenteeism and school climate indicators alongside standardized test results, and some states have introduced measures to assess students’ character traits.46 In 2016, nine of California’s largest school districts began to publicly report information from four “non-cognitive” indicators, which comprise 8 percent of schools’ performance ratings.47

Most researchers in this field urge caution. As Duckworth writes in an op-ed for The New York Times:

Does character matter, and can character be developed? Science and experience unequivocally say yes. Can the practice of giving feedback to students on character be improved? Absolutely. Can scientists and educators work together to cultivate students’ character? Without question.

45 Author interview with Angela Duckworth (telephone), May 11, 2020.
Should we turn measures of character intended for research and self-discovery into high-stakes metrics for accountability? In my view, no.\(^\text{48}\)

Duckworth explains that the methods for assessing character are too limited and were designed in the first instance to support students’ self-reflection—not to evaluate their teachers and principals.

The Charassein’s research team agrees. As Cheng notes: “The consequences of accountability are non-trivial. What are we capturing? What are we not capturing?”\(^\text{49}\) Hitt further explains the potentially distorting effect of testing traits explicitly: “We can see perseverance at work indirectly [i.e., item completion on tests], but can we actually score students directly on this basis? The tests weren’t designed for that purpose.”\(^\text{50}\) Schools certainly play a role in the development of their students’ academic and non-academic outcomes—for better or worse. But acknowledging this, and studying it, does not—and should not—lead inexorably to evaluating schools, teachers or students on this basis.

Beyond accountability about which they and many scholars are skeptical, the Charassein team is already informing the field’s understanding of how schools shape students’ characteristic behavior and beliefs. Zamarro describes:

> Character skills like student motivation, perseverance and grit are increasing in importance during [the COVID-19 crisis], when students are forced to do distance learning and be more independent learners. Schools are increasingly understanding the importance of promoting these character skills and quickly adopting initiatives and programs to do so. My hope is for [the] Charassein to be able to provide a better understanding of how to better promote these important character skills and support schools in their initiatives so we can make this movement a lasting and successful one.\(^\text{51}\)

Zamarro’s words ring true as the United States enters into the new academic year with COVID-19 still at large. However, the question of whether students are becoming more independent learners to meet the challenges ahead still looms. Policymakers certainly hope they are, and Charassein’s methods offer them one more way to assess whether aspirations are becoming reality for students in American schools.\(^\text{52}\)


\(^{49}\) Cheng interview.

\(^{50}\) Hitt interview.

\(^{51}\) Author interview with Gema Zamarro (email), May 28, 2020.

\(^{52}\) See, e.g., “The Return: How Should Education Leaders Prepare for Reentry and Beyond?”, Chiefs for Change and Johns Hopkins Institute for Education Policy, May 2020, pp. 6-8.
ABOUT R STREET

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