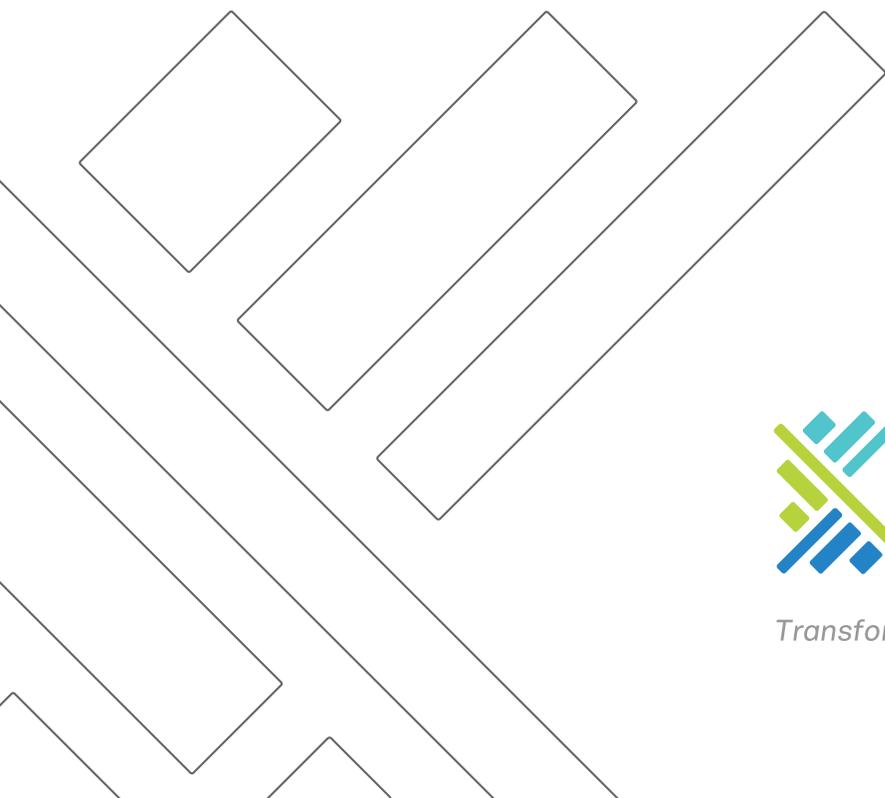


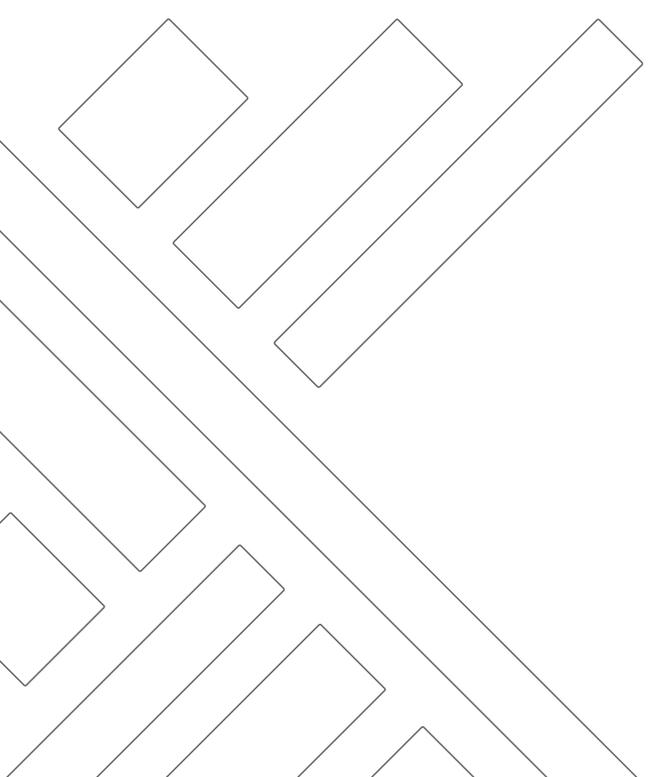
# Seed Grants 2016–2017 Report



*Transforming Mathematics & Science Education*

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## OVERVIEW:

The goal of the Knowles Senior Fellows Program is to support a national network of teachers who have the capacity and drive to be primary agents of educational improvement. The program provides support in the form of grants to Senior Fellows that leverage and amplify the investment the Knowles Teacher Initiative made in them as Teaching Fellows.

Currently, the Knowles Teacher Initiative seeks to leverage this national network of teacher leaders by funding a range of Senior Fellow-initiated projects. All Senior Fellow-initiated projects begin as Seed Projects that are intended to improve education beyond Fellows' own classrooms. Seed Projects may include Senior Fellows working to enhance science and mathematics teaching and learning in high schools, providing leadership for other teachers, building a network of teachers engaged in new ideas, and/or providing leadership for schools or districts. Senior Fellows are encouraged to include colleagues from their schools, districts and beyond in Seed Project planning and implementation. We anticipate Seed Projects that show exceptional results and potential for further impact will be eligible for additional years of funding.

Thanks to a generous contribution from Janet H. Knowles in the amount of \$50,000 for FY2017 (June 1, 2016–May 31, 2017) and \$50,000 for FY2018 (June 1, 2017–May 31, 2018), we began awarding Seed Project Grants in the fall of 2016. The Seed Project Grants were announced in June 2016, and as of May 31, 2017:

Nine Seed Grant proposals were received, requesting a total of \$82,369.

Six of those proposals have been awarded Seed Grants, requesting a total of \$49,519:

- Global Empowerment Center
- New Peer to Peer Coaching Community
- Science for Monks
- Observation Northwest Group
- Rocky Mountain Area Fellows and Friends Observation Project
- Establishing and Expanding the Writing Community Within and Beyond Knowles

The three remaining proposals, for a total of \$32,870, have been reviewed and have been sent back to Fellows for revision. We anticipate that these projects will be funded during FY18.

# PROPOSAL NAME:

## Global Empowerment Center

**AWARD DATE:** January 13, 2017  
**GRANT AMOUNT:** \$9,520

### SENIOR FELLOW GRANTEE:



**Laura Darnall**  
Goodpasture Christian School  
Madison, TN

*“The support I have received from Knowles over the years gave me the confidence to approach the superintendent with a plan to create a program unlike any other in our geographical area.”*

### PROJECT GOALS:

- 01** Identify schools/programs who have received national recognition for excellence in specific areas related to our vision of the Global Empowerment Center and tour their facilities to learn and document their successes and struggles
- 02** Document in detail the various facilities, equipment, programs, and training that are involved in the success of the schools/programs we are touring
- 03** Gain knowledge regarding staffing and expenses involved in the creation of this program
- 04** Develop contacts and relationships in which we can partner to gain further knowledge, troubleshoot, and ultimately create an excellent program for our students

### PROJECT OVERVIEW:

Senior Fellow Laura Darnall was awarded a Knowles Teaching Fellowship in 2009. Her school is in the midst of a large capital campaign to build a Global Empowerment Center—a new building designed to serve students and the larger community that will center on engineering, entrepreneurship, collaboration, and audio-visual creative work. Laura was tapped by her superintendent to lead the effort of making sure that the Global Empowerment Center served students and the community well. Laura quickly formed a team of people from her school who decided that in order to proceed, the team needed to learn from other schools about the work so they could imagine a truly revolutionary educational space. This Seed Grant provided the opportunity for Laura and her team to learn from innovative schools around the country and bring that back to Goodpasture.

## FELLOW REFLECTIONS:

As recipients of one of this year's Seed Grants, my team and I are immeasurably grateful. In 2015, a campus master plan was revealed for my school, Goodpasture Christian School in Madison, TN. Part of the plan is to construct a state-of-the-art building which will house classrooms, athletic spaces, and a novel entrepreneurial center. When the plan was revealed, my brain started spinning with all of the ways we could utilize the space to train our students to leave high school prepared to make valuable contributions to society. My idea was to create a Global Empowerment Center where we can equip 5th through 12th grade students to dream, design, and market solutions to world problems.

The support I have received from Knowles over the years gave me the confidence to approach the superintendent with a plan to create a program unlike any other in our geographical area. She was excited about my thoughts but recognized the funding to research best practices in entrepreneurial education would be hard to secure in our current school budget. At just the right time, the Seed Grant program at Knowles was announced. Eagerly, we prepared to submit a grant proposal.

Our goals for this grant are to identify schools and programs that have received national recognition for excellence in specific areas related to our vision of the Global Empowerment Center. We want to tour their facilities to learn and document their successes and struggles. We want to see the various facilities, equipment, programs, and training that are involved in their success. We hope to gain knowledge regarding staffing and expenses involved in the creation of this program and to develop contacts and relationships that can be used in the future when our space is up and running. Ultimately, we want to create an entrepreneurial education program that is unprecedented in our area.

In February of 2017 we traveled from Nashville to the San Francisco Bay Area where we toured six schools that each have different components of the complete program we are hoping to create. At each school, we were able to interview the staff who runs the spaces and those who were responsible for designing either the spaces or the programs that run in them. We were also able to talk with students about what they feel are the benefits of the programs and what they would like to see in addition to what they have. In addition to touring and interviewing we were able to capture footage which we will use to create two videos about our journey. One video will detail our process from start to finish and will be made available to Fellows, donors, or school districts who may be interested in creating similar programs elsewhere. The second video will be used to promote our space. We fully intend to have this space be part of the community at large, so we will use video on our website to promote our programs.

We are currently halfway through the execution of our grant. We will spend the next few months working on our videos then hope to take another research tour of the Boston area in the fall. I look forward to learning more about what it will take to get this program off the ground and to sharing our successes in the future.

## PROPOSAL NAME:

# New Peer to Peer Coaching Community

**AWARD DATE:** October 13, 2016

**GRANT AMOUNT:** \$6,400

## SENIOR FELLOW GRANTEE:



**Scott Murphy**

St. Joseph's Preparatory Academy  
Philadelphia, PA

*“This Seed Grant allowed me to set up a community of 10 teachers who opted into a program that is based on the Coaching Institute that I participated in through the Knowles Teacher Initiative in previous years.”*

## PROJECT GOALS:

- 01** Create a collaborative coaching model at St. Joseph's Preparatory Academy that provides structure and space for teachers to share and reflect on their classroom practices
- 02** Shift the culture of the school from one of teachers working alone in their classrooms to one in which talking and reflecting on teaching with other teachers is a natural part of practice

## PROJECT OVERVIEW:

Senior Fellow Scott Murphy was awarded a Knowles Teaching Fellowship in 2008. Scott participated in the Knowles Teacher Initiative's Coaching Institute in its second year, where he developed his skills in cognitive coaching, a non-evaluative process by which teachers help each other reflect on their practice and develop as teachers. At Scott's own school, however, a new teacher evaluation system had made teachers wary of being observed and had the effect of making teaching even more isolating. Scott viewed cognitive coaching as a way to encourage teachers to take risks, grow in their practice, and reflectively analyze the effectiveness of their teaching in a non-threatening environment. When the Seed Grants were created, Scott saw the opportunity to bring teachers in his school together to organize a peer-to-peer coaching model in which teachers from all across the school observe and coach one another, after Scott had provided them with the training they needed based on what he had learned in the Coaching Institute.

## FELLOW REFLECTIONS:

I would like to express my appreciation and gratitude for the Seed Grant that I received this year. I teach at a school where many of the faculty work in departments that do not often interact with each other. There are also a fair number of teachers who are apprehensive about changes to our observation process and the teaching evaluations that accompany these observations.

This Seed Grant allowed me to set up a community of 10 teachers who opted into a program that is based on the Coaching Institute that I participated in through the Knowles Teacher Initiative in previous years. I trained teachers on the peer observation process and then paired them up for four observation cycles throughout the year. The diverse group of teachers who signed up for the program helped us create a feeling of cross-curricular collaboration that is, unfortunately, often missing from our school.

The intentions of the grant were to foster a sense of collegiality and collaboration among the teachers in my school and to create a low stakes observation protocol to encourage teachers to hone their craft and try new approaches without the stress of a negative evaluation. As part of the end-of-year evaluation, 100% of participating teachers answered “Valuable” or “Extremely Valuable” to the question: How valuable do you find observations using this model in increasing your awareness and adjusting your approach in the classroom? Additionally, 70% of respondents reported reflecting on their lessons on a daily basis by the end of the year, an important habit of mind that the Coaching Institute tries to instill. One colleague of mine stated as the program ended, “This program has definitely increased the amount of time I spend on reflecting on what I do in the classroom. It has also provided a more formal framework for my reflection.”

I am hopeful that this program will continue to grow in the future. I will offer the program next year and I would like see some of the participants from this year serve as cohort leaders so that we can set up a more distributed leadership model. I know that this program has influenced the classrooms that hundreds of students attend and I believe that the effect will be multiplied in the coming years.

# PROPOSAL NAME:

## Science for Monks

**AWARD DATE:** September 13, 2016  
**GRANT AMOUNT:** \$11,305

### SENIOR FELLOW GRANTEES:



**Rachel Sanders**  
Rivendell Academy  
Orford, NH



**Jim Lane**  
Mahtomedi High School  
Mahtomedi, MN



**Stephen Traphagen**  
Rolling Meadows High School  
Rolling Meadows, IL

*“The success we found teaching monks in India has reaffirmed our own commitment toward improving science education.”*

### PROJECT GOALS:

- 01** Create a unique learning and collaboration experience for Senior Fellows as they teach Buddhist monks in India
- 02** Reflect, document, and communicate about this experience to the Knowles community and beyond
- 03** Leverage these experiences and learning to create learning communities within our schools and the Knowles community focused on the nature of learning and science

### PROJECT OVERVIEW:

Senior Fellows Rachel Sanders, Jim Lane and Stephen Traphagen were awarded Knowles Teaching Fellowships in 2009, 2008 and 2009, respectively. Through their connections with the Knowles Teacher Initiative, Rachel, Jim, and Stephen were asked to participate in the Science for Monks program ([scienceformonks.org](http://scienceformonks.org)) as teachers and mentors. This program brings American scientists and teachers together with Tibetan Buddhist Monastics to support the Monastics in learning science. The Senior Fellows envisioned this experience as one that would enrich their own learning as teachers, would contribute to conversations about the global community within the Knowles community and their school communities, while also benefitting the monks that they taught.

## FELLOW REFLECTIONS:

Our experiences in India consisted of teaching week-long courses for Buddhist monks and nuns. We were tasked to answer the question “What is Life?” and to build capacity in the monastics as science leaders in their communities in this short time—a task of truly monumental proportions. To accomplish our task we had to deconstruct and reflect on our own practice, allowing a unique opportunity to better understand the underlying motivations for using each lesson and approach. The preparation process allowed each of us to bring our own strengths, to highlight lessons we have used in our classrooms, and to modify and refine them for use with the monastics. In designing a course to last only a week, we reflected on the fundamental concepts in biology that helped to deepen our understanding of what we teach and why. This process revealed another important relationship of teaching—the relationship between the teacher and the content. Each of us is passionate about different aspects of biology and we each have a better understanding of how our own passions influence and impact how we teach.

Teaching through a translator to a class of monastics with little or no previous exposure to the philosophy of Western science is an enlightening experience. All of the anxiety and anticipation of the first day of school is wrapped up in the culture shock of being in a completely different culture. Despite all the external pressures we quickly realized best practices are universal. We established classroom expectations and relationships with each student and between students. The relationship between students, and between students and the instructor, define the learning experience. Sharing the experience with another Knowles Fellow created a meaningful opportunity to observe each other in our element, each of us able to gain insight into subtle aspects of our own practice and interactions with students.

Finally, the most important relationship that effects change and influence in our practice is the relationship between teachers. By far the most impactful aspect of our experience was the opportunity to authentically reflect and process each day. The opportunity to perform meaningful reflection on our practice is often overlooked or underappreciated in our daily practice. Each night while in India we reflected, processed and planned the following day for an hour or more. This reflection time allowed for an opportunity to better understand our own and each other’s practice. The power of this daily reflection defined the lasting impact of the entire trip.

The success we found teaching monks in India has reaffirmed our own commitment toward improving science education. We have applied the lessons we learned from the monks, from each other, and the experience as a whole to our own classrooms. The experience of teaching in India truly reopened our eyes to the fundamental core of biology and the philosophy of science. Our experiences will effect change for hundreds of Buddhist monks throughout India and will improve science education here at home. The reach and impact of this support has truly reached global proportions.

# PROPOSAL NAME:

## Observation Northwest Group

**AWARD DATE:** January 18, 2017  
**GRANT AMOUNT:** \$1,100

## SENIOR FELLOW GRANTEE:



**Mike Town**  
Lakeside School  
Seattle, WA

*“The support of a Seed Grant was critical in facilitating the sustainable organization and growth of this valuable group.”*

## PROJECT GOALS:

- 01** Facilitate the annual funding and semi-annual organization of the observation group
- 02** Collect data on our inner-workings to optimize our experience
- 03** Strategize about the long-term outlook for this group

## PROJECT OVERVIEW:

Senior Fellow Mike Town was awarded a Knowles Teaching Fellowship in 2011. Two Knowles Teaching Fellows also served on the leadership team for this project: Alex Steinkamp (2012 Teaching Fellow, Olympia High School; Olympia, WA) and Kylie Bertram (2016 Teaching Fellow, Federal Way High School; Federal Way, WA). Observation Northwest Group (ONW) is a group of 19 teachers in the Pacific Northwest that organizes observation meetings twice a year; the teachers meet at a single school, observe classes throughout the day, and engage in a series of structured reflections over the evening and following day. These observations have been enormously successful with Fellows reporting it as some of the most important professional development they get during a year. As the group has grown, managing these observations became more and more challenging. Mike, Alex, and Kylie stepped up to lead an effort to try to systematize and organize this group in ways that would allow it to grow and become more beneficial to a wider group of teachers in the Pacific Northwest.

## FELLOW REFLECTIONS:

For the past several years, the ONW group (started and sustained initially by the initiative of Knowles Senior Fellow Meg Gildea, Todd Beamer High School; Federal Way, WA) has been experimenting with semi-annual observations at schools across the Northwest as a form of professional development. We gained a lot from these observations, including providing context for professional discussions, providing inspiration for classroom teaching, and building a supportive regional professional community.

As ONW grew in participants and in the geographical region it spanned, it became more and more difficult to inclusively and efficiently organize and fund our semi-annual observations. The in-classroom and post-observation discussions began to require more thoughtful organization in order for them to fit the needs of our greater numbers. Finally, it became clear to us we would need new models or mechanisms for sharing leadership responsibilities.

In addition to the leadership team, the group that met for the funded work also included Meg Gildea and another colleague from a local university. We met once in January 2017 for a day. The outcomes of this meeting were:

1. We outlined and evaluated the operational structures that had organically evolved since the inception of ONW.
2. We developed checklists and reminders to ease the transfer of annual and semi-annual organizing responsibilities. The same documents will also serve to normalize the experience from observation-to-observation.
3. Finally, we developed a model for a collaborative working group that will meet during the 2017 Knowles Summer Meeting to analyze data collected during the year, revise organizational structures, request funding, and transition leadership.

The impacts of this work have already been felt. We just completed our spring meeting under the support of the checklists and reminders developed in January 2017. The hosts of our observation were able to manage the entire event without the help of the perennial leadership, and all who reported back formally and informally found the meeting valuable. ONW has a collaborative working group planned for the 2017 Knowles Summer Meeting, so the second step in our organizational plan will be implemented in July 2017. We expect further impacts from these funds to include the growth of other regional groups and our observation model for professional development under the models we are developing based on our work in January 2017.

## PROPOSAL NAME:

# Rocky Mountain Area Fellows and Friends Observation Project

**AWARD DATE:** November 28, 2016  
**GRANT AMOUNT:** \$3,540

## SENIOR FELLOW GRANTEES:



**Cacia Steensen**  
Gateway High School  
Aurora, CO



**Megan Fretz**  
Horizon High School  
Thornton, CO

*“This Seed Project allowed us to observe each other teach, give feedback to those who were observed, get ideas for our own classrooms, notice differences between schools, and develop a stronger community of teachers dedicated to improving the quality of education within our context.”*

## PROJECT GOALS:

- 01** Design a group where members (both Knowles Fellows and their colleagues) will observe, debrief, and reflect upon classroom observations across districts
- 02** Develop the tools and systems necessary for productive and sustainable classroom observations and make these tools easily accessible to members of the group

## PROJECT OVERVIEW:

Senior Fellows Cacia Steensen and Megan Fretz were both awarded Knowles Teaching Fellowships in 2011. Both have been active in the Rocky Mountain Area Fellows group since its inception three years ago. However, while the group has been a nice place for emotional support for Denver-area Knowles Fellows, it hasn't had a strong focus on collective learning nor on how to create relationships between teachers in the area. Cacia and Megan caught a vision of creating a regional observation group (similar to ONW, also a Seed Grant recipient featured in this report) and set about organizing a group of pilot observations that they believe will grow into a larger more regional impact over the next year. They envision teachers from across the area visiting each other in pairs (to promote reflection) and building a professional community across the region. Their work is just beginning, but below, they report on the success of the pilot and the way it inspires them to move forward.

## FELLOW REFLECTIONS:

We're grateful for the support of the pilot year of the Rocky Mountain Area Fellows and Friends (RMAFF) Seed Project. It allowed for the development of a program to support Fellows and their colleagues in visiting other schools and classrooms across the Rocky Mountain region. Unfortunately, it is rare that teachers are able to visit other schools. Yet, we have found that observing teachers actually teach in their classrooms is one of the most effective forms of professional development. This Seed Project allowed us to observe each other teach, give feedback to those who were observed, get ideas for our own classrooms, notice differences between schools, and develop a stronger community of teachers dedicated to improving the quality of education within our context.

For the Seed Project, we started by creating structures to reduce the activation energy required to set up an observation at another school. The logistics of planning a visit, informing administration, requesting a substitute teacher, choosing a protocol for effective observations, etc. is often what keeps teachers isolated. Therefore, we created a series of documents, available to everyone within the Knowles community and RMAFF to streamline the logistics. We were able to complete two sets of pilot observations this year and, both times, we found the documents invaluable. The initial time and work to create the documents will make it much easier for all RMAFF teachers, as well as teachers in other regional groups, to complete observations in the future.

The two sets of pilot observations that we completed this year were extremely positive experiences. First, two teachers from schools north of Denver (Seed Project Grantee Cacia Steensen and 2015 Teaching Fellow Dawn Yetter, William Smith High School; Aurora, CO) observed classrooms in two schools about 45 minutes away (where Seed Project Grantee Megan Fretz and 2015 Teaching Fellow Meghan Mosher—Monarch High School; Louisville, CO—teach). Cacia and Dawn were able to reflect on how each school was structured and came away with actionable ideas about how to improve their own teaching. They carpoled to the observation and, on the drive home, could not stop talking about all the ideas they had based on what they observed. Megan and Meghan also reported enjoying the process, not only because having observers forced them to thoughtfully critique their own teaching, but also because it strengthened the sense of community between all teachers involved. For example, Cacia and Megan had already worked together for years as Fellows, but the experience of actually observing teaching practice deepened their working relationship so much more.

When the roles flipped for the second set of observations, responses were similarly encouraging. When the RMAFF observation program is expanded next year, we expect that many teachers will similarly benefit. We will also personally be completing additional observations next year because we found the experience to be so positive.

Overall, this support made the pilot year of our Seed Project a success. We cannot adequately express our gratitude for the opportunity to engage in observations that improve the quality of our teaching, build a strong community, and ultimately allow us to be more effective with our students.

## PROPOSAL NAME:

# Establishing and Expanding the Writing Community Within and Beyond Knowles

**DATE GRANT APPROVED:** February 9, 2017

**AMOUNT APPROVED:** \$17,654

## SENIOR FELLOW GRANTEE:



### Rebecca Van Tassell

Associate Editor

*Kaleidoscope: Educator Voices and Perspectives*

## PROJECT GOALS:

- 01** Increase awareness among Fellows of the power of teacher writing and its impact on the field of education more broadly
- 02** Promote writing as an essential activity of a teacher leader
- 03** Increase the visibility of Fellows within Knowles, the education community, and eventually the public, who are actively writing and publishing to normalize writing as a practice in which teachers engage
- 04** Provide adequate supports and structures that allow multiple paths to publication
- 05** Increase submissions and readership of teacher writing, including *Kaleidoscope* and other outlets, from the Knowles community and beyond
- 06** Build our collective knowledge of advising writing as a vehicle for supporting writers in this community

## PROJECT OVERVIEW:

Senior Fellow Rebecca Van Tassell was awarded a Knowles Teaching Fellowship in 2009 and is currently an Associate Editor of *Kaleidoscope*, the Fellow-led journal sponsored by the Knowles Teacher Initiative. The editorial board strongly believes that the writing they publish as they continue to develop *Kaleidoscope* can counteract negative press about teachers and teaching in addition to providing a counter-narrative for the simplistic “how-to” information and advice about teaching commonly found in both the news media and resources and publications aimed specifically at teachers. Our Fellows have unique and valuable perspectives to share with their colleagues across the country. The editorial board feels that writing is an essential behavior for teacher leaders as it has the power to reach and impact other teachers, administrators, parents and the community at large. This grant allows them to, first, strengthen the writing community within the Knowles Teacher Initiative by supporting Fellows in writing about their experiences as teacher leaders and, later, promoting the writing across the teaching profession.

## FELLOW REFLECTIONS:

This year, the *Kaleidoscope* editorial board has been working toward developing a robust writing community at the Knowles Teacher Initiative, with the goal of amplifying teachers' voices within and beyond the Knowles community. The Seed Grant allowed the editorial board to work on a few initiatives that are vital to our work: we held an in-person retreat for the first time this June to learn more about supporting writers, we are running a writing retreat for other Fellows, and we are hosting a number of different events at the 2017 Knowles Summer Meeting to draw more Fellows into the community of storytellers.

At the editorial board retreat, we analyzed data from our work with authors, discussed and made decisions about the various types of writing we accept and dreamed about what *Kaleidoscope* is and can do in the future. We brought in the guidance of two consultants to help us craft this learning experience.

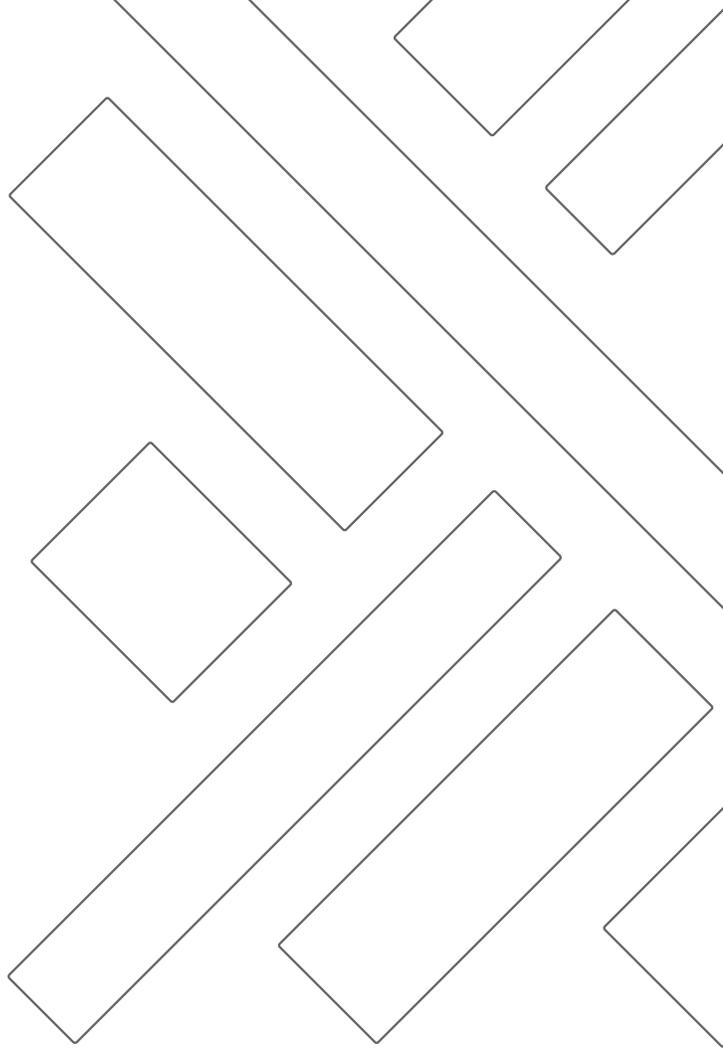
We will be hosting a writing retreat this summer for Fellows and participants will get the chance to work together in person. Our work will continue together virtually through the rest of the summer and into the fall. Our consultants will be joining us at the writing retreat to help us further develop our skills in coaching writers. They will help us implement the many aspects of the work we practiced during the retreat and will provide much needed feedback during and after the event.

We are all incredibly energized by our editorial board retreat and have plans to continue to improve our skills in supporting writers throughout the year. Personally, this work has meant more to me than just skill building. I'm currently staying home with my two young children, and while I love that work dearly, the projects launched by this grant have allowed me to stay connected to the work of teaching. Bringing teachers' voices to the table is incredibly important to me in my professional life, and I am so grateful I can continue to contribute even though I'm not in the classroom at the moment. I find working with authors incredibly rewarding. Writing for us includes the sense-making and learning that goes on as you try to tell a story; in a way I feel like I have students, people who I am shepherding toward a better understanding of themselves as teachers.

As we envision what *Kaleidoscope* will look like into the future, we see many different projects that work together to support teachers as they make their stories public. In the future we are building:

- a new digital platform to showcase teachers' stories in a wide variety of digital formats,
- ways to draw in contributing authors from outside the Knowles community,
- more ways to include Fellows in the work of *Kaleidoscope* through work such as serving as writing coaches and reviewers, and
- additional writing events throughout the year.

As *Kaleidoscope*'s work gains a broader scope, we will continue to seek structures that keep us close to our mission and allow all teachers access to this incredible outlet for teachers' voices. Our work this year has given us the time and space to examine our priorities, dream, and plan for the future while doing a huge amount of intellectual work to improve our skills in promoting teachers' voices.



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