The 2020 AERA theme is The Power and Possibilities for the Public Good: When Researchers and Organizational Stakeholders Collaborate and is a call to “to address educational challenges through policy and community engagement and to work with diverse institutional and organizational stakeholders.” How can such leveraging of educational research contribute to collaboration and engagement within and across diverse stakeholder groups and to educational change?

While the nature of such a call is not unfamiliar to research communities, its urgency cannot be understated in terms of how it is perceived, carried out, and spread across the field. I believe that although many researchers recognize how important it is for research to have an impact on practice and policy, how precisely to, regardless of scale, ensure one’s research is meaningful and impactful remains somewhat elusive. This is the fundamental challenge, to make our research more visible, accessible, easily communicated, and viable to different cultural settings and one which we need to prioritize. The idea of research impact I refer to here, and have attempted to prioritize in my own work, is quite straightforward: it is the capacity for translating the research knowledge into practices that can be transferred to diverse educational settings.

To unpack this definition and corresponding calls and bring them into being, we have to first ask ourselves a few clarifying questions: What do we mean by “research”? By “we” I mean researchers, policymakers, and practitioners. We need some clarity around the term. What is the role of research in the process of educational change perceived by these groups? We may have different views on this notion. Some believe research serves to shape public policy and practice, or vice versa; others might think research should be co-designed with those on which the research is focused and should
include voices and participation of various stakeholder groups. Different beliefs about the role of research may lead to various approaches of everything from data collection to analysis to the use of the new knowledge coming from the research. As such, I think it is important that a conversation about the role of research in educational change within and across stakeholder groups needs to be initiated. In so doing, we may have a chance to shape collective beliefs about the role of research in the change equation. AERA, for example, is a great channel for us to engage in a dialogue like this.

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Another challenge faced by researchers has to do with the degree to which research knowledge is used: How do we make “research outcomes” accessible, useable, and more importantly “attractive” to a diverse audience? The key in this process is the “attractive” component, meaning we need to ask why some research findings receive more attention than others. What makes particular types and presentations of research salient or important to those in the field? Individuals need to be motivated to seek relevant information to make change happen. One potential course of action to increase the possibility that different stakeholder groups would be motivated to seek educational research information would be for researchers to translate their findings into easily digested, relevant and salient pieces of information. The simple idea behind this process is that change happens when every individual is willing to start to make small and consistent efforts for change, not necessarily requiring them to undertake a major transformation. Translating research findings is the first step to make the findings accessible. To attract the attention and increase touchpoints of the users of those findings, researchers need to work with their audience to make the findings relevant to their work. Once we can make research findings come to life, it is more likely we can engage within and across different groups. This will then potentially engender opportunities to collaborate, co-construct knowledge and understanding particular change phenomenon and co-design strategies informed by collective wisdom.

Given your focus on issues how educational leaders might most effectively create conditions to support teachers to productively engage in instructional reform, what would be some of the major lessons the field of Educational Change can learn from your work and experience?

The key to translating this work into action would be a focus on the “who” and how they create the kind of conditions that can support teachers’ instructional practice. Most of my work suggests educational leaders should better create conditions to facilitate efforts that lead to desired change (e.g., Liou, 2016; Liou et al., 2014, 2015, 2019a, 2019b). This notion seems to suggest a linear path between the role of leaders and teacher practice; however, such leadership practices are, in fact, dynamic
and can be shaped through different leadership roles.

When we think about educational leaders in shaping organizational practices, we can narrow our focus to two types of leadership roles (i.e., formal and informal) that have been well studied in the leadership literature (cf., Coburn et al., 2012, 2013, Daly, 2010, 2012, Daly & Finnigan, 2016; Frank et al., 2011, Morel & Coburn, 2019; Penuel et al., 2012; Spillane et al., 2010, 2018; Spillane & Kim, 2012; Sun et al., 2013). This group of scholars takes a socio-structural and social learning perspective to unveil complex leadership behaviors that may influence the work of teachers, or vice versa. Central to this perspective is that people tend to (in)directly influence and be influenced by others who surround them. As such, their behaviors and beliefs are likely shaped collectively and in ways that facilitate a sense of, and ability to succeed in, a social environment such as their school.

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Their capital asset can be accessed, developed, and mobilized for achieving a particular purpose or accomplishing certain goals or tasks. As such, conditions that support teachers to engage in this social learning process are important as they greatly influence how teacher practice is shaped (Liou & Canrinus, 2019; Liou et al., 2019a, 2019b).

This social perspective may help us think about leadership roles in creating conditions for learning. For example, formal leaders include those who have a formally designated role such as principals, department heads and coordinators, etc. The informal leaders are those who do not necessarily have a formal leadership title but are influential individuals among school staff. These leadership roles are somewhat distinct by definition, but sometimes overlap within individuals and/or coexist within an organization. Each of these roles has to do with how conditions are created for desired change. The formal leaders can be helpful in communicating the vision, goals, policy and school development plan with their staff at some of the structured meetings to develop a shared value and language, which remains to be one of the top challenges most schools face. In practice, school leaders, on average, spend less than 20% of their time on discussing, revisiting, or co-developing their core values and plans together, even less time invested in making
sense of the reform policy (Grissom et al., 2013; Horng et al., 2010; Sebastian et al., 2017). A useful approach to address this issue might be to change the structure of staff meetings to a “mini workshop” format. In this approach, teachers are able to share their thoughts within and across their grade level or subject team, present it to the whole staff, and continue this discussion and practice until they come to have a shared understanding.

This ongoing course of practice is ideally coupled with the use of social influence through informal leaders such as those staff members to whom others would turn to for advice, information, or addressing immediate problems at work. Many times, these informal leaders are also formal leaders, but the key point here is the notion of peer influence through which individual beliefs are likely shaped. These informal leaders are often active teachers who initiate opportunities for collaboration and exchange of resources among teachers and act as spokespersons or representatives of their teacher teams. These leaders can convey the needs and messages or support information flow between different segments of school structure. They can be helpful in diffusing ideas and information, getting more teachers’ buy-in, and identifying needs for professional development. In the meantime, formal leaders have to make sure resources (e.g., time, budget, space) exist supported by infrastructure to assist the execution of initiatives or reform related plans that were collectively prioritized among school staff. In all, both formal and informal leadership roles go hand in hand in creating the conditions for learning and development (e.g., Liou & Canrinus, 2019; Liou & Daly, 2018; Sun et al., 2013).

Your work has used network analysis to explore how social ties and cultural norms such as trust and distributed leadership play a role in how teachers come to understand and engage in improvement efforts, learn, and change. What do you see as the most needed changes to policy/practice to help facilitate greater opportunity and better results for schools?

Network theory and analysis have gained increasing traction in education over the last decade. This approach provides some insights to a variety of questions around which researchers have been struggling.

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However, we are still grappling with what constitutes a “network” as well as working to gain a deeper understanding about what networks can or cannot do. As we hear more and more people talking about networks, I think we need to help clarify what networks are, how they are defined, and the ways in which we can use networks to inform policy and practice in education. As we researchers engage with policymakers and practitioners in the process of (research) evidence informed decisions, establishing a shared understanding of what networks do may facilitate the development of research-policy-practice partnerships (RPPPs).
Alan J. Daly in his interview in *Lead the Change* discussed some important components of networks. What I focus on here is the role and function of networks and their relevance to policy and practice. Broadly speaking, networks can be thought of as having two non-exclusive roles in the RPPPs context: agency and artifact. The agency role treats network members as main agents of change in forming a network. It denotes that individuals exert their capacity to engage with the social environment without the influence of external/internal policy. One can think about a friendship network of teachers from this perspective. This type of network is useful to help reveal organic communities that have little to do with policy implementation. The artifact role of networks denotes a network driven and structured by the intent and process of policy, meaning the network itself is an artifact shaped by the demands of policy and also by different stages of policy process. This type of networks includes, for example, structured learning teams of teachers. The network artifact is useful to identify whether there is a gap between the desired and actual structures and what we can do to close the gap. In practice, many organizational networks are characterized by both agency and artifact. In some cases, the development of artifact networks relies on, or comes after, the shaping of agency networks, or vice-versa. In other cases, the development of both artifact and agency networks overlap or exist as separate entities. It is not uncommon to find different roles of networks with variety of sizes (e.g., small groups of teacher teams, schoolwide reform committees, etc.) in educational settings. As organizations work to align policy and practice, it is important to recognize different roles and functions of networks so educational leaders may have a better sense of how networks can serve to support decisions for improvement.

How do we develop capacity to use networks to facilitate educational change? Network science scholars suggest cultivating network literacy to not only increase awareness of the concept of networks, but also to make use of it in decision-making. Researchers can help disentangle complex structural configuration of networks into clear threads of information with implications for educational practice. For instance, relational trust is important to school improvement and we can demonstrate trust by attending to interpersonal relationships that are mutual and represent characteristics of trust such as competence in measuring a relational tie. This information can then inform schools to develop or adjust internal policy to facilitate trust building by perhaps creating formal and/or informal opportunities for learning. In this case, networks provide information about not only the structure of relational ties but also the types of ties and quality of relationships, which can be used for change. Different relational structures have their function, advantages, and constraints in understanding individual and organizational behaviors. Researchers play an important role in bridging the knowledge gap in network literacy and building capacity of educational systems to use

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networks to drive change. An important role of researchers is to translate network findings so the findings can come to life for practitioners and policymakers.

One issue I want to raise here is the tension of the use of networks. The ambiguity and lack of clarity about the concept of networks remains an issue of concern in educational research. Do we see networks as a tool, perspective, method, or as a means to an end in a policy sense? If we use networks as an evaluative tool for measuring certain policy impact, to what degree can we ensure the trustworthiness of network data? How can we distinguish between the use, misuse, and abuse of networks in educational change? These are some of the important questions I think we should continue to reflect on as various stakeholders work together toward change and improvement, especially from a network perspective.

Educational Change expects those engaged in and with schools, schooling, and school systems to spearhead deep and often difficult transformation. How might those in the field of Educational Change best support these individuals and groups through these processes?

We can think about the realization of educational change through stages of change processes, with each stage supported by evidence to stimulate conversation about difficult transformation. The change process requires several practices critical to improvement: the partnership relationships with practitioners, the capacity to create conditions that support learning, and the use of networks to inform policy and practice. The processes can be generally divided into five stages: interaction, initiation, influence, inquiry, and improvement. As practice is socially constructed through interactions among people in situated context/environment, creating conditions for such interactions is a priority. Once provided with opportunities for interactions, ideas for change would be more likely to be generated and turned into initiated actions. To make initiations at scale, it requires groups of people working toward a common goal with shared beliefs. Beliefs are socially influenced, be it intentional or unintentional, through interactions and shared decision making. When people have shared beliefs about a reform initiative is more likely that buy-in and thus impact will occur. Finally, inquiry into performance of the reform is part of the organizational learning process through which the level of improvement can be tracked with intervention if needed. The change processes can be helpful for researchers to think about improvement practices—collaborating with practitioners to help make evidence informed improvement decisions; to support the creation of conditions for learning; and to make sense of organizational network structures during change processes.

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Furthermore, as change is both a process and outcome, and each is dynamic, complex, and ongoing, organizations need to be able to define their change process and its desired outcomes from the outset. They also need to, in an ongoing manner, measure the gap between desired and actual performance. This may need a call for regular organizational health checks. This idea resembles a lot of the work around research-practice partnerships but stresses the role of research and its practical impact as well as the constant feedback between researchers and practitioners (Coburn & Penuel, 2016; Palinkas et al., 2015). Like continuous health monitoring, organizational health checks involve ongoing data collection (real time or interval) and feedback that constantly shape decision making for improvement. This process requires that the organization have a learning focused mindset, meaning that the organization is willing to confront the most brutal facts of the status quo, is open to new challenges, and takes reform action accordingly. Finally, all improvement requires change, but not all changes lead to improvement. Building trusting, collaborative partnership relationships between and among diverse stakeholder groups also seems to be the key to innovation and improvement.

Where do you perceive the field of Educational Change is going? What excites you about Educational Change now and in the future?

I envision the field of Educational Change moving toward a multi-disciplinary and multi-method approach to understanding, theorizing, and practicing change for improvement. To me, educational change can be viewed from the organizational or systems level and needs multiple lenses to understand the phenomena. We need these different perspectives as our work cuts across organizational theories, learning sciences, sociology, (social) psychology, anthropology, etc. I would love to see research that makes an impact on different aspects of organizations informed by a multidisciplinary approach, e.g., culture and climate, community involvement, individuals’ intrinsic change, and adaptation to external and internal environment, so we are able to understand a more holistic picture of the change phenomena. This is not to say that one needs to do everything all the time, but it would be helpful for us to collectively open up new ways of thinking about and studying organizational change.

The multidisciplinary approach to educational change naturally leads to the needs for multimethod research on the change phenomena. What excites me in this space is the advancement of some of the research methods and analytic strategies that can further help the field explain complex organizational behaviors such as structural configuration of interpersonal relationships. As change requires individuals’ practice which is shaped by interactions, examining the structure and meaning of interpersonal relationships can supplement our understanding of overall organizational climate and culture, which

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can further help the field theorize the concept of change.

I would like to conclude with several possibilities and practices for the development in the field of Educational Change from systems and network perspectives. First, we should continue to strengthen research-practice partnerships and research-policy-practice partnerships in support of change and improvement. Second, all stakeholder groups should continue to engage in further discussion on the use of networks in the change equation. Third, the field can encourage greater involvement of researchers in collaborating with practitioners to illuminate stages of, and key elements in, change processes coupled with ongoing organizational health checks. Fourth, researchers may consider conducting relational interventions designed to facilitate systems change. Finally, as we talk about the use of networks in educational change, we may need to think about our online and offline (face-to-face) social activities that make up our everyday lives. As our practice may stretch across both spaces, this may well be the case for the work of practitioners. As such, it would be important to investigate this social phenomenon by exploring the possibility of integrating and intersecting the online and offline networked communities of practice among practitioners (cf., Daly) and its potential influence on their practices and efforts that may lead to or contribute to systems change.

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