School Climate and Social Fields
- an initial exploration

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Garrison Global Collaboration for Emotional, Social and Systems Education & MIT

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CONTENT

Preliminary Investigation

"School Climate and Generative Social Fields"

By Mette Miriam Boell and Peter M. Senge

I. Aims of the project

The purpose of the project leading to this report on school climate and social fields is to explore school climate from the standpoint of existing assessment instruments and the views of master practitioners experienced in shaping more generative school cultures. Based on the insights that emerged, we hope to have better approaches for research and practice going forward, and especially for leadership capacity building in the many systemic change efforts in which we and our colleagues are involved. Our overarching interest is in understanding evolving school climate as an example of shaping more generative social fields.[1]

Over the past years, more and more instruments – mostly self-administered surveys - for assessing school climate have come into use, motivated in part by growing concerns around bullying, student-on-student violence, and other symptoms of lack of safety and care that jeopardize student learning. Some in State wide use now include the California Healthy Kids Survey and the California School Climate Survey. But, good leaders have been mindful of what constitutes a healthy school climate for a long time, and whether explicitly or not, evolving theories and strategies for building healthier climates.

One specific aim of this initial investigation is to explore the gap that exists between how master practitioners think and existing instruments. For example, while many climate surveys focus on safety as perceived by students, effective leaders focus more on the quality of the relational space among adults. What is the capacity of teachers and administrators to discuss effectively conflictual issues and deal with dysfunctions in the present culture? How strong is their vision for student learning? How able are adults to

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[1] See Senge, Scharmer, Boell, "Towards a Lexicon for Investigating Generative Social Fields," a report prepared for the Mind-Life Institute Academy for Contemplative and Ethical Leadership; the idea of generative social fields can be found implicitly in many approaches to systemic change, including Theory U and Presencing, the Five Disciplines approach to systems thinking and organizational learning, Immunity to Change, and Appreciative Inquiry.

deal with the stresses of modern schools without losing their enthusiasm and sense of efficacy? Sitting behind strategies that focus on these sorts of questions is the conviction that the behavior exhibited by adults and perceived by students trumps espoused values and what is taught in the classroom, such as when adults teach students about respect but students do not experience being respected.

We found it especially interesting that advanced practitioners, like experienced principals and superintendents, focus more on culture than climate. From this perspective, school climate reflects how the culture manifests in the here and now while culture represents the underlying reality they are seeking to influence. In this sense, climate instruments may focus on the surface but not the deeper sources of what shows up on the surface. This creates the danger that they may provide lots of information but not much leverage for real improvement.

Related is the finding that many of the practitioners we spoke with make little use of existing climate surveys. This may be because the surveys are relatively new and few have been in extensive use for more than a few years. But this also begs the question of how tools like these can be useful elements of leadership change strategies. All too often, attention is focused by researchers on the instrumental validity of such tools rather than on their efficacy in practice. We easily forget that tools do not produce change, people do. The ultimate question is how such artifacts can become part of larger awareness- and capacity-building processes that help to shape healthy cultures not just report on climate.

Last, our study is motivated in part by a conviction that education will increasingly focus on cultivating three core intelligences embedded in what today is commonly called "social and emotional learning" and "systems learning:" understanding and caring for self, other, and the larger systems of which we are always a part.[2] Understanding and shaping school climate requires all three. Climate is a key facet of each individual's (teacher, student, parent) lived experience of a school. It is generated in large measure through person-to-person interactions and feelings. Yet, it is also a defining systemic property of a classroom, school or school system. Therefore, understanding and influencing school climate could become an important facet of integrating social, emotional, and systems learning in practice.

In this pilot study, we have interviewed a small number of experienced practitioners, researchers and thought-leaders who we know share our interests. While not meant to be representative of the larger population of relevant practitioners and researchers, this

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2 D. Goleman and P. Senge, The Triple Focus, 2014

small sample is adequate for our aim to explore school climate from the perspective of assessment instruments and masterful practice. The interviews were open-ended, attempting to elicit from each (1) their views on school climate and their experience, if any, with existing assessment instruments, and (2) their reflections on the interface between climate and generative social fields. The interviewees come from US, Canada, Denmark, and Mexico.

The report is organized in three major parts: an overview of school climate assessment instruments in use in the US and Canada, a synthesis of the interviews, and reflections and implications for the future. The synthesis, Section III, is the heart of this document and organizes what we learned from the interviews around the basics of understanding climate, change strategies in use for improving school climate, and challenges in pursuing these strategies.

II. Features of school climate assessment instruments in use

The National School Climate Council, formed in 2007 by the Education Commission of the (US) "to narrow the gap between school climate research on the one hand and school climate policy, practice and teacher education to support student learning and positive youth development," defines a positive and sustained school climate in the following ways[3]:

> "School climate is based on patterns of people's experiences of school life and reflects norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures. A sustainable, positive school climate fosters youth development and learning necessary for a productive, contributive, and satisfying life in a democratic society. This climate includes norms, values, and expectations that support people feeling socially, emotionally and physically safe. People are engaged and respected. Students, families and educators work together to develop, live, and contribute to a shared school vision. Educators model and nurture an attitude that emphasizes the benefits of, and satisfaction from, learning. Each person contributes to the operations of the school as well as the care of the physical environment."

In a recent review of the field cited by many of our interviewees suggests five dimensions of school climate :

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3 http://www.schoolclimate.org/index.php

- Safety (e.g., rules and norms, physical safety, social-emotional safety),

- Relationships (e.g., respect for diversity, school connectedness/engagement, social support, leadership, and students' race/ethnicity and their perceptions of school climate),

- Teaching and Learning (e.g., social, emotional, ethical, and civic learning; service learning; support for academic learning; support for professional relationships; teachers' and students' perceptions of school climate)[4],

- Institutional Environment (e.g., physical surrounding, resources, supplies), and

- the School Improvement Process.

In recent years, interest in these dimensions has grown in part because of nation-wide efforts to improve safety and reduce bullying and in part because growing appreciation of the connection of climate and academic achievement. In a well-known multi-year study of Chicago schools, Bryk and his colleagues found that schools with high relational trust, meaning strong and healthy social relationships among members of the school community, are more likely to make changes that improve student achievement.[5] Reviewing "four systems" that support or undermine school improvement – professional ca pacity; order, safety, and norms; parent-school-community ties; and instructional guidance (alignment of curriculum and academic demands) – their research has shown that relational trust is the "glue" or the essential element that coordinates and supports all four.[6]

While school climate reflects how people experience school, attending to it seriously requires "collecting and analyzing a range of quantitative and qualitative data," according to The Council of State Governments Justice Center's "The School Discipline Consensus Report:" [7]

> "When educators and school system leaders walk into a school building, they quickly get an impression of the school's climate by observing interactions between students and staff, taking stock of the condition of the building, and witnessing the level of students' engagement and involvement in class. This observational information is important, but is based on very limited information. A more comprehensive examination of the learning environment can reveal patterns of behavior and adult responses that may not be readily apparent yet have implications for student well-being and success, particularly for struggling groups of students."

Today, there exist a wide range of instruments to give educators quantitative data to augment their direct observations.[8] Most are survey based, either self-surveys for students and/or teachers, peer-surveys where, for example, students report on the perception of climate among their peer groups, parent surveys, or a combination of several of these approaches. Most commonly, the surveys include questions of feeling of safety in school and assessment of relations, like number of trusting relations within schools as contrasted with outside of school, and the feeling of secure relations with adults.

Self-administered surveys have advantages in terms of cost, but some school systems have made substantial investments in more elaborate processes, such as training teachers to administer instruments that combine self-reports and independent observations. For example, the Early-years Development Index (EDI) used in British Colombia is compiled by observations made by all kindergarten teachers in the middle of a child's first year in school – following observation – and inquiry protocols in which most kindergarten teachers in the Province have been trained. The Middle-years Development Index (MDI), gathered in 5th grade, is generated by a combination of teacher observations and self-reports. Because EDI and MDI results are aggregated at the level of geographic communities not just schools, researchers from the University of British Colombia regularly facilitate gatherings where community members reflect on the well being of their children, not just their school performance – how it has changed over time and how it compares with other communities. [9] We know of no other process like this elsewhere.

Self-administered surveys are usually distributed once or twice a year and are typically identical each time. This consistency of questions makes a lot of sense from a data analysis standpoint but also opens the analysis to the potential contamination of recurrent questions – where a respondent knows more or less what he or she is supposed to answer because they have replied to the same questions before.

4 Thapa et al, Review of Educational Research, September 2013, vol, 83, no. 3, 357-385
5 Bryk & Schneider, 2002
6 Bryk, Sebring, Allensworth, Luppescu, and Easton (2010)
7 https://csgjusticecenter.org/wpcontent/uploads/2014/06/The_School_Discipline_Consensus_Report.pdf

8 Some of the more well known that we have studied for the purpose of this report include The California Healthy Kids Survey and the California School Climate Survey, The School Climate Assessment of CASEL (Cooperative for Academic, Social and Emotional Learning) network, and the EDI and MDI instruments used in British Colombia.
9 The data gathering, aggregation (e.g.,presenting data in easy to read maps) and community outreach are supported by The Human Early Learning Partnership (HELP) at UBC.

Given the growing variety of instruments, recent efforts have focused on enhancing instrument validity. For example, the School Discipline Consensus Report cited above states: "Numerous tools have been developed to help schools objectively and reliably measure climate and conditions for learning. While many school climate surveys are locally devised and not empirically tested, a growing number of states and districts are recognizing that school climate surveys must be validated for the target population." The National Center on Safe and Supportive Learning Environments (NCSSLE) maintains a compendium of these validated school climate survey tools. [10] In addition, the U.S. Department of Education is developing a series of national School Climate Surveys for middle and high school students, staff, and parents, that will cover three main domains of school climate – engagement, safety, and environment.

In addition, there are many sources of suggestions for effective use of these instruments. For example, The National School Climate Council recommends that schools:

- Engage all members of the school community, including teachers, students, parents, administrators as active participants and agents for successful school climate improvement implementation.

- Focus on long-term programming, impacts, infrastructure and support to ensure school climate reform is sustainable.

- Create school networks to share best practices and provide a forum to discuss challenges openly and honestly.

- Engage students at all stages of the school cycle improvement process to build capacity and sustain reform efforts.

- Create and share tools and information for teachers, administrators, staff and parents to promote a positive school climate.

- Establish a school climate policy agenda to support quality practices

Other bodies and reports make similar recommendations around stakeholder engagement, creating staff time to process and plan, prioritizing capacity building around critical climate improvement aims, and analyzing data to discern and address disparities by race, gender, ethnicity, and English Language Learners.

Among our interviewees, several commented on the state of existing tools. For example,

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10 https://safesupportivelearning.ed.gov/

Kim Schonert-Reichl of UBC stressed that the EDI and MDI instruments take a broader whole child perspective that goes beyond many school climate instruments by assessing "child well-being inside and outside of school." The EDI and MDI consider: (1) Social and emotional development, (2) Connectedness to peers and to adults at school, at home, and in the neighborhood, (3) School experiences, (4) Physical health and well-being, and (5) Constructive use of time after school. Steve Arnold of the George Lucas Foundation raised deep questions regarding fundamental limitations of self- or other reporting on school climate a few times a year. "Digitalized, somewhat mechanical assessment doesn't really give much information about the larger system or more holistic structure. This is actually one of the huge problems in the entire field."

Criticisms like Arnold's seem particularly valid when instruments are used in isolation or as single dimensional prods to force educators to take climate seriously. This is why more and more of the advocates for climate assessment instruments longer-term processes of stress stakeholder engagement and building shared vision and alignment, like The National School Climate Council's guidelines listed above. But how to do this effectively requires more than good advice. Building effective leadership ecologies is an art as much as it is a science and needs to be guided by the insights of experienced practitioners, as we will explore in the next section.

III. Current state of practice

In order to do justice to the extraordinary richness of our interviews, we have adopted an outline format that summarizes key points and then illustrates what people actually said. The appendix A lists the people interviewed, who are identified by initials below.

III.1 Basics in Understanding School Climate

1. School climate can be thought of as an expression of the underlying culture and a vehicle for its continual renewal

    – "Climate is the feeling in the moment of the underlying culture of the school" (DS)

    – "Recognizing school climate is essential to the constant renewal of school culture." (AE)

– "We never really spoke about school climate as such, it was more about school culture." (MM)

– "We don't operate with a specific approach to school climate, but, we work intensively on the culture in and around schools." (SM)

2. You can feel the climate of a school – it is how being in a school activates or touches all the senses:

"Whenever I walk into a new school, I do it with as open awareness as possible. I get impressions and I notice them, how they make me feel and think… Entering the building, is there laughter in the air? What volume are different voices coming out at you at? What is the general sense of the climate that's being created and projected from the space in its entirety?" (EP)

"When you walk into a classroom where there are healthy relationships, there is just this sense of calm." (PA)

"School climate has to do with the feel of a place" (DF)

"School climate is almost tangible … parents report how they feel welcome when they come to the schools, or how well the teachers feel about the work environment." (AE)

"If a human being is considered a node in a system, then the system is comprised of the nodes and their interconnections and interactions with each other. [For human systems, you may also add that the system is comprised of the patterns and exchange of energy and information.] When you look at things at this level, then you may say that the way that an individual node of the system tries to articulate what it's like to be in that system at that moment, this articulation is the feeling of the climate.

"You can feel the climate of the classroom or the school literally in your body." (DS)

"The challenge here is, that outsiders may not have a very precise feeling of the school very quickly. Something can look and feel much better or worse than it is. It's not just about the number of artifacts that you can see but also about the quality of the relationships, the orientation towards innovation, the sense that the staff in the school feels responsible, and other such factors." (MG)

3. Teachers, students, and parents are aware of climate but may have little sense of how they might influence it proactively.

"Principals and teachers as well as parents seem to seem to "see school climate as something inherent to their work, but it also feels like they don't have power or capacities to promote… More often they relate to school climate as something they have to deal with every once in a while when there is conflict between students, or there are bullying episodes." (AE)

4. Climate and academic achievement are connected

"The level of trust between teachers, their communication with parents and other such factors has the highest influence on academic achievement when all the traditional factors (percent of free- and reduced lunch; parent engagement etc.) are already in the equation." [11] (MG)

"Three UNESCO studies assessing the quality of education showed school climate is the single most important variable that determines student achievement in Latin America [12]" (AE)

"The schools that have really thought through what kind of an environment they want to have, the ones that really practice that, are much more successful with achieving a healthy school climate as well. It really relates to systems thinking and may serve as the bridge builder between systems thinking and social-emotional learning. It's not just about certain structures, but about values and policies and a core belief that children are fundamentally good and that they want to thrive and grow in a supportive environment, as opposed to a punitive environment.

"The environments where there is an explicit celebration of student's success and where this is used to breed more success and more engagement, in particular for kids who are not traditionally successful in schools, seem to be more successful to me." (DF)

11 Bryk et al
12 The First Regional Comparative and Explanatory Study (PERCE, by its Spanish acronym) was implemented by LLECE in 1997 in 13 countries. Nine years later, in 2006, the Second Study (SERCE) tested students in 16 countries plus one Mexican state (Nuevo León). The Third Study (TERCE) was implemented in 2013 in 15 countries and the same Mexican state. http://www.unesco.org/new/es/santiago/terce/

5. Climate is shaped by the physical and the relational environment

"I make a distinction between the environment and the climate of the classrooms and schools. The environment is constituted by the tangible objects and artifacts: ease of access for students, density of the space in the classroom, etc. The climate, on the other hand, has to do with the interpersonal engagement and in the relations. You can have a crappy looking place with joyful noise, Or, you can have beautiful looking design in super affluent surroundings with apathy in the classroom (and) where students don't talk to each other, they appear as if they're alone together, completely disconnected and disengaged." (EP)

"Climate is all about relations and the physical space, the ability for the students to take ownership and self-organize in community processes and a profound sense of respect and compassion woven in to all the little actions and interactions we engage in every day.

"It's important that the classrooms are well lit and that students have what they need. But it's much more important how you behave when giving it to them, how respectful you are and how well you listen to them. (PA)

6. Assessing the physical environment

"When approaching a new school, I notice the architecture and design: what were these buildings intended for? How do they make me feel? What type of things can take place in such a space? For instance, if you come to a campus or a playground, is the space walled up – are there gates and fences with barbwire – or are the physical structures open and welcoming?" (EP)

"In one example is of a school I know, the principal helped designing the school so it would be welcoming and inviting to both parents and students. There was a big space for gathering where everyone met every morning and sang. There were benches and chairs and stacks of books in the hallways and everything was very intentionally build, to focus on a great space for people." (KS-R)

(Classroom configurations):
"Teacher centered or cross-interactive" (EP)
– are all the chairs set in neat straight rows facing forward or are students grouped so they can work with each other?

7. Assessing the relational environment

(in general)
"Are people approaching me as a welcome guest or in a control-like manner as if I'm a suspicious stranger?" (EP)

"We emphasize a culture of greeting and smiling and acknowledging each other." (SM)

"Encountering either students or teachers, you can often tell about the general assumption about people who're not members of the community: you will most likely find, that both groups are reflecting a similar set of assumptions." (EP)

"When I first begin to speak with either the principal or the teachers, I notice if there is a sense of purposefulness: what is the purpose of what they're doing and do they share this perspective?" (EP)

"With the students, I look for their level of expressed joy and their level of connection, do they feel empowered? Do they meet me and greet me as hosts of their school?" (EP)

"It's all about relationship and connections - and about the lack of relationship and connections. (PA)

"The school climate is an indicator of the of the kinds of relations that prevail in the school environment... the maturity of co-existence and well being in the communities... not only among students but all members of the community." (AE)

"What it really comes down to is the more caring and more present people are in interactions with each other... For instance, people's listening skills are a crucial and often neglected factor, especially for teachers who tend to see themselves more as managers of the classroom. (MG)

This is important for all students but especially for those coming from underprivileged backgrounds.

"When we talk about the achievement gap and the opportunity gap, we are really talking about a relationship gap... kids who are struggling in school are also often struggling with poverty outside of school, where they face a lack of resources, of

tutoring and music and all these things that could make them happy. They go to school and are unhappy there and then they go home and don't know if they will have dinner. I don't know how we expect kids to learn under such circumstances. All this tells me that it's even more important that we focus on relationships... When we give the Healthy Kid Survey, which is a climate survey that we give kids and adults and teachers, the marginalized kids and in particular the black and brown kids all say 'I have more connections outside the school than inside school,' and that breaks my heart because they spend the majority of their time in school.

"A 2006 article, "From the Achievement Gap to the Education Debt [13]" they emphasize the importance of relationships. This study found that if you have that ability and connect with the kids and show compassion in the relationships with them, the effects on narrowing the gap grows exponentially – and if you don't it is also an exponential effect in preventing children from learning." (PA)

(administrative)

"When I get to the principal's office, I notice how I'm being greeted, or IF I'm even being greeted or ignored by the secretary. I notice what people are doing, how parents are addressed and how kids who're sent to the office for bad behavior or other reasons are being met in their needs when they show up. The people in the waiting room are first in line of contact with students, parents and outsiders and have a great influence on the overall climate of the school. Usually you see that the secretaries and assistants are either machine-like or very human in their contact." (EP)

"Often the most toxic space in the school is in the staffroom where there are in-groups and out-groups created and a lot of bullying going on." (KS-R)

"One particular component I also focus on is the decision making processes at the school. Who gets to decide what? How involved are the teachers in the overall decisions? What degree of top down decisions is the organization allowing? (DF)

(classroom)

"For the climate of the classroom, I notice if primarily unidirectional teaching or cross-interactive teaching is taking place. Is there a productive noise with an emphasis of the relationships being formed throughout the group of people in

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13 Ladson-Billings, Gloria: From the Achievement Gap to the Education Debt: Understanding Achievement in U.S. Schools. EDUCATIONAL RESEARCHER October 2006 vol. 35 no. 7 3-12

the classroom, or is it mainly teacher controlled."(EP)

"When you ask students about their assignments, they often say they "doing the sheet" – or, if they feel a sense of ownership of what they're doing, they'll refer to it as "engaged in a task." I look for level of passion, concern and connection in the students, because it reveals to me if it makes sense for them what they're doing or if they're primarily doing it for the sake of the teacher. This all comes down to not so much if they like what they're doing, but more if they assume responsibility for the work whether they like it or not." (EP)

"I've been quite inspired by Rick Hanson's "First five minutes in the classroom" - that the entire relation climate is established within the first five minutes of class. Is the teacher greeting the children? Are the parents welcome? What is his tone of voice and so on – it's a fascinating book (The Moral life of Schools), exploring the "moral" of the school. You will always miss the mark of developing school climate, without taking these unintended markers into consideration and making them visible.

"One of the master teachers I know had only plants in front of the class and no table, but just tables all around. He also had a goldfish bowl with a popsicle stick with all the students' names on them, so as to ensure that everyone was called on in equal amounts. (KS-R)

8. "Its not what we say but what we do"

The behavior of the adults in a school embodies the underlying quality of relationships and shapes the relational space.

"Our focus was: 'When adults are doing it, what does it look and feel like for the kids,' knowing that they would model our behavior and codes of conduct.

"We actively began building role models for our young people – we wanted them to engage with each other with an awareness of what it looked and seemed like to be part of more effective conversations. (MM)

"We want people to feel safe and to feel connected and engaged. Once you build a culture like this, it becomes a culture of role models for the kids." (SM)

"The Hidden Curriculum are the messages that are conveyed about the relational environment, the physical environment, the appreciation of the kids in a

school, how welcome are the parents, and so on…" is important when you want to understand climate. "It's not explicit and it's rarely intentional and yet it's so much of what the children are learning, because they see what the adults are giving emphasis to. Unless you try to surface this hidden curriculum, you're never going to move towards a positive climate." (KS-R)

III.2 Change Strategies in Use

1. Quality of the relational space and organizational culture must become strategic priorities

"We need to address caring compassionate classrooms as a primary focus in our district, … (and) a healthy climate in every school in the district.

"Our focus must first and foremost be on healthy supportive relationships between teachers, administrators and children. As a superintendent, I really don't care what you teach kids – if you don't make them feel comfortable and wanted and supported, it's not going to go anywhere." (PA)

"School climate has to be recognized as one essential dimension of a quality education…. Without a profound renewal of the school culture, the schools will keep pretending as if they are doing something important for the students, but in fact, sadly, they will keep wasting the precious time that is needed for the formation of a holistic human being… (this renewal) will not happen without the renewal of the school climate, the relations between people involved in the education of children." (AE)

"That which identifies quality in relationship becomes what we would like to see the larger field: respect, equality, compassion." (HJ)

"We operate like this (clear expectations commitment to development for all) because we believe we control which culture we create, we're responsible for it. And we want to do the things that we agree to do 1st class, all our kids deserve that" (SM)

2. Deepening basic aims of education: working together to shape a generative school culture and climate adds a significant dimensions to education

"The evidence from our programs shows that with adequate relations between students and teachers, students feel listened to, challenged, and supported so they are able to embrace learning in more meaningful and respectful ways. They learn how to belong to society and have a productive role in it. They recognize and are critical about failures of the social structures and interactions. They acknowledge the need for co-responsibility and solidarity that is needed in their communities to function more wisely… Students develop in new ways of collaboration for social good and… how they are able to solve problems together… such interactions and ways to collaborate are essential elements to learning and key in (our) citizenship curriculum." (AE)

3. Guiding Systemic Change Principles: we found many overarching principles of systemic change illustrated by interviewee's comments

– *Culture is shaped* in the *day-by-day* and *moment-by-moment* ways of thinking and interacting ("what is most systemic is most personal")

"In general, people create the standards that are directly related to the climate at their school. When there is actually an equal level of care, respect and nurturing for each and every student, it leads to not only happier and much more engaged students and personnel, but it also naturally increase the pro-social behavior."(EP)

– Power of a*spiration vs. desperation* (power of positive vision)

"I think maybe the school climate in the past has been more focused on decreasing the negative aspects, preventing bullying and such things, rather that promoting the positive, like promoting kindness and compassion. But I sense that this is shifting now. I think Noel Nodding has really nailed it with her challenge to care in schools – to focus on authentic dialogues between teachers and students and other factors of promoting kindness in the classroom."(KS-R)

"A number of years ago, I began to use a phrase 'quality learning for every child, every day in every classroom.' We didn't put it on posters or stickers on the walls, but in all of our meetings I would share this – I felt strongly responsible as a leader to have a teachable point of view and this little phrase became that. It became a part of what I did and it began spreading and eventually became our shared aspiration of the leadership team and it began influencing what people

did in the buildings... We created a culture where we were all aligned in the deep understanding that we are here for the young people. (MM)

So, instead of a need for anti-bullying programs as a reaction to problematic behavior, you begin with shaping and nurturing the types of behavior that's attractive and much more valuable for everyone. In such a climate, when something undesirable happens like someone is hurt by another, instead of punishment you find inquiry. And from such a space, real learning and growth can occur. (EP)

– Power of *focused capacity building*: identifying small set of priority areas and sticking with them:

"We have a strong focus on restorative justice and all our 2nd grade teachers have participated in this training, so there is an expectation for this to be a focus point in all schools." (SM)

"We were significantly influenced by the 'three legged stool' of organizational learning capacities: aspiration, reflective conversation, and seeing the larger systems. [14]

(in particular) we began to realize that we didn't have the capacity to engage in difficult conversations. So, we began a long journey refining our capacity for reflective conversation. As superintendent, I began to teach about mental models and the ladder of inference, so that when we got together, people began to label what was driving the conversations... To increase our tolerance for difficult conversations we used the 'left-hand column' tool, only we named it "public/private" conversation. Then we looked at protocols to find out how these conversations would be able to spread throughout our system.[15]" (MM)

"We are attempting to create generative social fields in our district in a quite focused and practical way – c.f., leadership teams with teachers, instructional coaches, principals and vice-principals where we facilitate deep conversations about the big issues." (SM)

Editors' Comment on reflective conversations: Most working teams (in all organizations, not just schools) have limited capacity to explore significant gaps between what is espoused and the reality people actually experience. Closely related are gaps between what people truly desire to see and what exists now ("creative tension"). Such difficult conversations are either avoided (even becoming 'undiscussable' in some instances) or dealt with in ways that result in little learning and change.

"We do need to go deeper than just words." (PA)

"Ultimately, we wanted to influence the 'parking lot' conversations amongst the adults so that we all dared to bring these conversations into the formal space where they should be held." (MM)

"The process of deep learning is brought forth with acknowledging what holds us back.

"You have to really see that you're in a certain space before you can begin to change it into the space you want to be in." (SM)

"Without reflective conversations, nothing works - reflective conversations were the underlying premise for the success of any tool (we used). We became able to sustain emotionally charged conversations addressing issues that we all cared deeply about as well as stuff that was very personal... To summarize, in all the interpersonal mush that's always present in a meeting between more people, we would all have an understanding of where everyone was at.

"The usage of the tools and our approaches increased our capacity for listening and most importantly of all, we could by our very way of behaving also share our journey with the local community and the parents." (MM)

Closely related to focusing on enhancing capacity to engage in difficult conversations is capacity building focused on building *relational competencies.*

"In the Danish Society for the Promotion of Life Wisdom in Children, we have a strong focus on social competences as a mean to cultivate a positive climate.

"In general, we focus on cultivating an awareness of the structural shifts (structure of awareness) needed to bring the relational to the center of attention. (HJ)

– Taking a systemic approach – seeing the larger systems that are operating.

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14 Senge, P. "The Fifth Discipline," 1990, 2007 (Doubleday)
15 The Ladder of Inference helps people distinguish what is directly experienced from our inferences (such as what is said from what I hear); the Left-Hand Column is a tool for making explicit what people feel and think in a difficult conversation that they do not say (Senge 2006, Argyris)

"A systemic framework is needed in order to approach school climate and culture from the perspective of a generative field and to put it in a away that is feasible for the school leaders and community to implement and understand its full potential." (AE)

"To me, the real power of systems thinking is, that you can identify the gaps (between vision and current reality) and as such, identify where teachers cannot be as efficient as they would like to be and as we would like them to be." (SM)

– Focus on *real problems* vs. *lofty goals and rhetoric*

"We started working actively on school climate because teachers were frustrated that they couldn't teach as effectively as they wanted to, because they were spending so much time with behavior management and counseling that they couldn't teach (PD)

– Importance of *common language* and *common practices*

Language needs to be simple and intuitive and accessible to diverse stakeholders, not "edu-babble."

"We used Stephen Covey's '7 Habits of Highly Effective People' to establish a common language for everyone in our school, from k-12 and all school personnel, including parents" (PD)

Eventually, need to develop *common practices* for ongoing learning

"When you came in as an outsider, it was very clear what you needed to learn in order to participate and contribute to the positive climate."(PD)

Examples:

- "Spiral of inquiry" – a particular disciplined applied learning process: (1)broad scan, (2) focus on key problem to address, (3) come up w action and implement, (4) reflect and improve (PD)

- Training older students to help younger ones with inter-personal conflicts (PD)

- Using the Ladder of Inference and "Public-private conversations:" people learning to make explicit their implicit assumptions and inquire together into these (MM)

4. Hiring the right people and then focusing on their development

"When we hire people, we try to find "the right people". And since our primary approach to education is 'people not programs", we are helping to build the school climate from the onset on. A bad climate comes from having 'the wrong kind of people' on board.

"I personally interview everyone who applies for open positions as teachers and principals. And everyone who works in the schools, including the custodians, the school bus drivers, the office managers and so on, get a week-long course when they're first hired, where they learn about our practices and expectations. Because we tell them exactly what they can expect from us, they also learn what we expect of them.

"Then, there is pedagogical support and professional development for everyone, from the superintendent office on down – e.g., all 1st and 2nd grade teachers have mentors – with overall focus on individual and team capacity building." (SM)

5. Need leadership at all levels to shape climate

"Everyone was involved, from custodians to secretaries to assistants and secretaries and it needed to be that way, that this shared safe space involved everyone and that we all had awareness of the language and aspirations." (PD)

"All the principals in our district were involved in the journey. We were not very data driven but had more of a practitioners orientation. We would use the different tools in our meetings and our approaches to each other and then the leadership teams would take that learning to the building level and sometimes it would even disperse into the classroom."(MM)

Student engagement

"We would regularly ask the students between 4th and 7th grade to give feedback on their experience of the climate, questions about discrimination, teacher support, well-being, emotional regulation, bonding and many others." (PD)

"Our common school focus was on student leadership and our common goal was to develop everyone's emotional literacy... we ended up training the older students in conflict management as part of their leadership abilities... to discov-

er alternative routes to less conflict, the increased ownership for the older kids was just remarkable." (PD)

6. Parent and community engagement

"We did a lot of communicating with the parents, from first day of school, with newsletters and updating our website and we also offered parent training and community building, not just around the 7 habits but also on bullying and other things we were working on. That helped creating a climate that was much more open than it had been beforehand." (PD)

"The usage of the tools and our approaches increased our capacity for listening and most importantly of all, we could by our very way of behaving also share our journey with the local community and the parents. (MM, from above)

"As a low-income 80% free- and reduced lunch district, parents tended to not be very engaged in school and if they were, they would often have a negative input instead of being supportive – because they lacked trust in us and in the educational system in general. (In order) for the parents to learn how to become involved in a supportive manner, we created a parent university, where parents in our district now have a chance to learn about how better to support their kids, how and when they should be thinking about college education for the students, and many other things such as general strategies for supporting your children, including outside school." (SM)

Which parents are involved and in which ways? How inclusive or exclusive is parent involvement? Are they engaged mainly in fundraising types of activities or... also in curriculum development? (DF)

"As a new superintendent in this district, I started by reaching out to our Latino community, because those are the groups that are marginalized and often victims of lack of relationships. About 40 people from the Latino community showed up when they were invited in for a conversation on how we could better support them. They sat silently when I posed that question and I had to convince them that this was actually what we would like. When finally we began to talk, most of what came up for them was the lack of access, lack of relationships, lack of information and, most generally, a lack of feeling welcome in the community. So, for them there was clearly a lack of a healthy climate at the schools." (PA)

"The relations built within the school influence greatly the kind of environment the community is ready to adopt (vis a vis the school), the kinds of commitments and processes that the entire community will embrace, the they will share together." (AE)

7. Volunteerism and Teacher Autonomy vs. external drivers of change

With the aim of creating change quickly, leaders often create diverse incentives (carrots and sticks) to drive change, but in so doing undermine the critical ingredient of genuine motivation. Conversely, effective leaders tend to focus on agreement on overall goals and diversity in people's roles in line with their own interests, and look for ways to support natural leaders who want to go further.

"(We worked on building) consensus from the teachers (around basic vision of emotional literacy and CASEL 5 aspects of SEL) and there were no expectation for the teachers to go deeper than this – many did, but it wasn't a requirement.... Many teachers took things to next levels, e.g. wanted to teach empathy and other things in class, but everyone were committed to this baseline and that really helped the climate." (PD)

"All implementation has to be voluntary" (especially where personal change is involved) (HJ)

Focus on Readiness rather than data to drive change

"We working with those principals who were ready rather than trying to use surveys or 'data' to drive change... and then they would, to varying degrees, go back and teach it to their teachers and other people in their buildings. What we saw was that those who bought into our tools and common language most deeply were the ones capable of changing the climate in their buildings most effectively and within the shortest period of time. Their cultures embraced change more rapidly because it came with a deep conviction." (MM)

8. Growing Impact thru supporting peer networks and positive word of mouth

"We wanted to let good ideas spread naturally... Teachers would spend time in each other's classrooms to learn from each other and they began to share more widely what they felt was difficult in their professions, so in this sense the teachers felt that our school was a safe space just as much as the students did." (PD)

"You want the "infectious" classrooms to infect (in a positive way) the other teachers and the other classrooms – it creates an ebb and flow atmosphere of the entire schools where both teachers and students share and open up. It's a dissolving of the walls of the schools... the entirety of climate becomes a neuro-restorative field." (PD)

9. Mindsets and genuineness

"It's all about a common mindset, not a program... That differentiation has a huge affect on the climate of a school because there can be shared ownership of the process and engagement in the school climate. (PD)

"Kids are so good at picking up when people are not genuine in the connection (for example, in their listening). It's very unfiltered (for them) and that holds you accountable as the adult in the relationship. Many teachers – if they are not trained to handle this – get angry when their authenticity is questioned by kids." (PA)

10. Leading by Doing, especially at 'the top': those in visible leadership positions must do themselves what they want to see spread more broadly

"We would always be doing it ourselves first. We would use the different tools in our meetings and... then the leadership teams would take that learning to the building level and sometimes it would even disperse into the classroom.

"In my opinion, we actually succeeded in creating generative social fields in our district and the culture – or school climate – as by-product of using the three legged stool every day, just as the 'magical classroom' is a byproduct of personal mastery, trustful relations and teachers who have integrated the core learning capacities from the 3-legged stool. You don't get to generative social fields by talking about it; you get to it with self-awareness, alignment and lot's of practice." (MM)

"I, as a principal, would also fill out surveys on school climate." (PD)

"Our district office shares resemblance with 'the magical classroom' - it's a sustainable learning organization with cycles of continuous empowerment of the people who work here. And if we do things like this, if we do things right – a higher and more positive impact on our surroundings is the consequence." (SM)

11. "Learning Infrastructure": making learning part of day-to-day routines and not leaving it to chance. Learning infrastructures include

– embedded capacity building (training, coaching, support for peer learning)

– regular time for reflection on core issues

– ongoing investigation into what is working and not

– support of larger peer learning networks within and across schools and school districts to build larger networks of collaboration and learning across boundaries

"We created a structure at school, where teachers could say and report about how they felt. So when we met, our first question would be "so, what's not working?" (PD)

"(once we have identified key gaps)Then, we do our best to take care of the support structures around the teachers and free up their time to teach. This makes them feel important – and when they feel valued and important, they start to behave like that and makes them better role models for the students." (SM)

12. Benefits of a 'home grown' path' and a spirit of inquiry

(Our approach was) "a continuous evolution based on identifying problems w school climate and coming up w approaches to address them. (at the outset) we didn't even know what we were looking for. We just knew we wanted our kids to be happier and our teachers to be able to feel they had meaningful workdays.

"We collectively addressed this as a year-long action research project - underlying it all we found, that the kids were illiterate in key social-emotional competences and in self-awareness in particular; so, SEL and especially emotional literacy became our key area of focus.... Kids come to school being dependent beings and we wanted to teach them not only to become independent but also to realize that they (and we) are interdependent." (PD)

"I believe the system of interactions of a school is yet to developed. every school needs to develop its own path to build a generative social field, but there is certainly a need for guidelines, reference models and resources to help." (AE)

13. Deep change takes time, openness, courage and willingness to grow personally, and persistence to make it through difficult passages

> "We knew it would probably get worse before it got better, because that's what happens when you start focusing on things, and we never tried to hide from that." (PD)

> "Working with school leaders on the renewal of school culture, we have learned that a positive climate cannot be enforced. Achieving healthier stages of school culture has to build from within school members... it is important to show what they have achieved, the current stage, and what is out there to achieve – from a formative perspective." (AE)

> "This takes real courage from all of us, in order to change these deep structures." (PA)

> "Increasing emotional literacy means cultivating a general awareness within people of 'who am I?' and 'What influences me?'

> ... and it was very clear to us that if you don't know what you feel, you'll never know what you want." (MM)

> "People have to have a genuine interest in a moving away from form and achievement towards being and existence. It becomes a question of standing in relation to oneself with integrity and self-worth, as opposed to the much more common standing in competition with the other. This, we believe, is the most precise key to opening the heart." (HJ)

14. When a sophisticated relational focus is cultivated and stabilized to some degree, awareness of climate can become refined

> Helle Jensen lays out an approach to deep capacity building evolved over many years in Denmark that focuses on developing a "relational" orientation

- both parties in a relationship "bring disturbance" to a relationship

- self-awareness is key in order to see the nature of the disturbance I bring: "cleaning my side of the window"

- Contemplative or meditative (taught through non-sectarian mindfulness practices) side of our work serves as a support structure: "it makes it more bearable to stay with the uncomfortable"

- In schools, natural focus is on the teacher (or more generally in organizations, on the most senior or responsible person in a relationship – parent, boss, ...): "Whoever has the greatest power in a relation also has the greater responsibility – when the teacher is not present in the relation, the child can never be met."

- "Structured dialogues" to build common language and shared understanding

- This is not a question of analyzing, it's a practice everyone can acquire.

According to Jensen, when a relational focus is absent,

> "natural competencies disappear: body-awareness, awareness of breathing, empathic feelings, creativity, and focused awareness. When these natural competencies are neglected, people's natural authority and authenticity disappears as well."

> "We end up with most relations where people are not actually present in the contact – in Danish we have a saying that translates to 'they're out of themselves'."

> "When the teacher is not present in the relation, the child can never be met."

Jensen goes on to talk about sophisticated awareness of "moods and atmospheres of the field."

> "The really deep training is to take care of oneself as well as of the community and social relations. This is a refined balance that needs to be practiced all the time. Everybody has to take responsibility for themselves at all times in every moment. From that position, it becomes clear how the energy is moving through the field – right here, right now."

These comments dovetail with other suggestions to enable increased perceptiveness regarding qualities of social fields – something that could be a major advance in the crucial nexus of climate and culture. (see Section IV)

15. At some level, building healthier school climates and increasing relational competencies must become non-negotiable strategic priorities

> "Though I prefer to get to peoples hearts, sometimes there just isn't time for that and certain types of behaviors need to change, period. You need to offer lots of professional development for the teachers to support them in these change processes, but it also needs to be clear that if people are not willing to accept the changes needed, they cannot work here anymore.

"I'm thinking that we need for teachers to voluntarily be able to sign an oath, stating that 'I will be here for the support of all children. I will step up and speak out if I see misdeeds and psychological abuse' and via that create a focus on the responsibilities we have concerning all kids. This can become part of our equity action plan, which in advance hold these statements and are on posters in all the classrooms already." (PA)

16. Effective use of climate assessment instruments and data

- Works best when part of larger process in place, such as

– Researcher-practitioner partnership: Peter Dubinsky from British Colombia worked with a research team from UBC focused on SEL and school climate, as part of a broad and active partnership helpful in his practice.

– He also positioned instruments within cultivating genuine aspiration, openness, and trust – "its not about the instruments in isolation" (PD)

- Combine instruments with reflective practices

PBIS (Positive Behavior Intervention System):

"Many districts across the US have adapted this governmental program. When I came here this year, I found that PBIS has been used for 3 years, and is now embedded in all elementary schools in the district. As a consequence, the suspension rate has decreased tremendously. We have caring circles where kids come together and talk about how they feel and think, which blends with a restorative justice program. (PA)

"(in our work on school culture) we have a list of data points that we use as reference for that work, which probably sums up to our overall focus on aspects of school climate. We primarily focus on suspension rates, students' attendance, on graduation rates and a parent-student survey. You may say that when these factors are all improving it leads to students become more engaged in their education, and that creates a much better school climate for all.

"The information from the different data points feed our reflective processes at our superintendent's office, we analyze or look at the stories behind the data... The information from the different data points feed our reflective processes at our superintendent's office. (tells story of how understanding challenges of

low-income parents led to parent university described above...)

"(Overall) we rely on our understanding and experience with the people here and then act on the data we gather to shape the innovations. (SM)

- Combine with capacity building

"The PBIS is based on some simple rules of respect and compassion for others (both among students and teachers), but for this to work with the adequate amount of authenticity from the teachers, our social workers training our teachers in this approach. (PA)

- Improve accuracy of survey responses through improved "emotional literacy"

"if you build capacity (students' and teachers') in emotional literacy, self-reported responses can be more accurate to actual experienced states" (PD)

- Surveys are important for showing change over time.

17. Possible ways that technology could augment surveys in use

"One of the tools that I looked at recently is a *mobile mood device:* everybody has a phone, and rather than doing multiple questions and complex systems, what they did was that they designed an app that random times throughout the day would pop up and ask two or three really simple questions that you had to reply to. *The point is that it was multiple times a day in and out of school to try to measure how the kids moods changed over time* relative to where they were and what was going on." (SA)

III.3. Challenges in Influencing Climate

1. Involving students:

"Unfortunately, we didn't really engage the young people in the reflective conversations from the start – that's one of the areas where we were remiss, and I would definitely change that if I started a process like this again. I have no doubt that our journey would have been influenced and the pace – we would have been able to do it more quickly. When we look back, we feel that was an error." (MM)

What is preventing more schools from seeing the students as co-leaders in shaping a healthy school climate – and in evolving effective strategies to do this?

Part comes from the kids themselves, especially younger ones

> "We still had one issue that didn't really become solved (for some time): when students were having problems among each other, they wouldn't seek adult advice. We didn't know how to handle this - how to get the kids to have confidence enough in the adults at school, to have them report about their conflicts.

> "We ended up training the older students in conflict management as part of their leadership abilities, and that turn out to work extremely well. This was a great learning for us... an alternative route to less conflict, and increased ownership." (PD)

Part comes from adults' attitudes regarding students as co-leaders

> "Nothing matters more to the climate of the school than how we listen to students, which sadly is often a blind spot for educators." (PA)

> "I see a great advantage we have here in Scandinavia because we have this radical idea of children as "real people" from onset on, which is still pretty avant-garde when you look at the state of affairs in many other countries, even in Europe." (HJ)

> "It's a letting go and accepting that the kids know their system, they know where the sticking points are, and we don't." (DC-W)

2. Succession and sustainability over time

A recurring challenge in all change is how to balance the critical role of individual leaders in catalyzing change processes with building resilient leadership ecologies that can sustain change as individuals come and go. Recently, we have coined a term "system leaders" to point to the unique skills of certain people to catalyze the collective leadership that can sustain change over time. [16]

> "When I left the school after 4 years of increase in positive school climate, the person who came into office did not have the same focus. And even though the teachers stayed committed, it was very difficult to uphold the positive climate without the leaders being committed to it." (PD)

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16 Senge, P.S., J. Kania, H. Hamilton, "The Dawn of System Leadership," Stanford Social Innovation Review, 2014

> "There is no guaranteed way to assure effective succession of leadership, but it will always be a problem to the extent that you do not build strong teams with shared leadership capacities, including the board, and effectively engage the larger community in capacity building as well." (MM – PMS to check quote)

3. Teacher readiness for working with relational space

– How is it that teachers are so unprepared for this dimension of creating effective education?

> "This really brings me to wonder how we have missed the mark – and how we have missed it so often. In teachers' educations there is so much focus on curriculum and on the different goals for learning, but I don't know that we convey the message about the social impact and the human impact that teachers have and the importance of building relationships and healthy supportive environments for kids. That insight should be the most primary and fundamental element of their education.

> "You can have this fabulous lesson that you have planned which supposedly engages kids, but if the kids don't feel they have a relationship with you and don't want to be there – it doesn't work, especially that kids who are struggling in school and often struggling with poverty outside of school" (PA)

– Poor training in working in complex emotional and relational issues

> "Many teachers – if they are not trained to handle this - get angry when their authenticity is questioned by kids." (PA-from above)

> "For instance, people's listening skills are a crucial and often neglected factor-teachers, in particular, tend to see themselves more as managers of the classroom." (MG)

– In some cases, there exists very low awareness of any of these issues, and even antipathy. This relates to lack of training and preparation but also to deeper issues that need to be understood and addressed.

> "I hear horrible stories of thing going on in certain classrooms with certain teachers, not because they are mean spirited but because they think it is funny and legitimate to ridicule the children in class." (PA)

"Teachers tend to bully students as well, very often the chosen few that are picked on again and again. It's the teacher's powerlessness that leads to this behavior. We (need to) empower teachers so they become able to see behind the surface of the ever-annoying student that just won't behave." (HJ)

4. Key constraints:

– There is often limited financial support: e.g., 2 PD days per teacher per year (PA)

– High turnover (in many school districts) in system leadership means lack of continuity, so people have no expectation that enhancing the overall culture and quality of the relational environment will remain a strategic focus.

– lack of confidence and competence for educators in general with systemic change processes

IV. POSSIBILITIES FOR ADVANCING RESEARCH AND PRACTICE IN THE FUTURE

IV.1 Reflections

In reflecting on the implications of the wonderful conversations summarized above, it seems to us that the first step is to pause and consider the core questions that set us on this path initially.

Along with many colleagues, some of whom were interviewed in this pilot project, we were drawn to this project by the challenge of seeking deeper ways of understanding, perceiving and influencing the emergence of generative social fields. Extensive experience with deep change in diverse settings, not just in schools, has led us to see deepening trust, openness, synchronicity and collective creativity as a sort of touchstone of collective awakening – in groups and larger social bodies like networks and organizations. In recent years, we have taken to thinking of these phenomena as indicators of shifts in underlying social fields rather than as arising only from individuals or singular events – inspired by how 19th century physicists began shifting attention from focusing exclusively on particles to field dynamics and thereby laid the foundation for radical breakthroughs like quantum mechanics in the 20th century.

Not surprisingly, many of the practitioners we interviewed shared similar experiences and resonated with the idea of cultivating generative social fields. Equally unsurprising, many researchers expressed questions about how to understand and discern such shifts. But there is no doubt most shared our sense that focusing on nurturing more generative social fields could help connect the study of school climate to the sort of deep and broad changes in education we all long to see.

In this light, looking at the whole of the interviews, two points stand out as guiding ideas for next steps: the importance of positive vision and of refining awareness.

In effect, the question of vision seems to have been pushed to the background in the early phases of work on assessing school climate, superseded by focusing on very real problems like reducing bullying and student safety. As Kim Shonert-Reichl noted above, "School climate in the past has been more focused on decreasing the negative aspects rather that promoting the positive." She adds, "I sense that this is shifting now." This shift is illustrated by a story Richie Davidson shared about a school in Madison, Wisconsin where he and his colleagues had worked with staff using practices to cultivate warm-heartedness, mindfulness and kindness. "(The school) had the highest suspension rate of all the schools in Madison and now in the last two years there have been zero suspensions."

In our work on leadership for systemic change for many years we have stressed the difference between "problem solving" and "creating:" fixing or ameliorating something that you don't want versus working together to create what you truly want.[17] The two are not antithetical – in the process of creating a vision there are always lots of problems to be solved. But the core leadership question is, "Which is primary?" When problem solving is the primary leadership orientation, "negative visions" – what we want to avoid – predominate. When creating is the primary leadership orientation, positive visions – what we want to create or accomplish – predominate. To name just a few such visions we heard in the interviews, "Quality learning for every child, every day in every classroom," or "We want all children to feel cared for," or, a "District office that resemblance 'the magical classroom' as a sustainable learning organization, with cycles of continuous empowerment of the people who work here."

Not only do positive visions energize people in ways that negative visions cannot, they often prove to be surprisingly effective strategies to addressing the toughest problems. From this perspective, it is interesting that Davidson's project at the Center for Healthy Minds

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17 Fritz, R, The Path of Least Resistance, 1989 (Fawcett), and Senge,P, 2007

was not focused on reducing suspension rates but on promoting kindness, mindfulness and warm-heartedness. Solving the suspension problem became a beneficial side-effect of their project. Over the years, we have seen countless examples of solutions to seemingly intractable problems achieved as by–products of focusing on a shift in how people were thinking and relating to one another rather than by a frontal assault on the problems themselves. These experiences are powerful examples of the systems principle that high-leverage changes are often distant in time and space from the most visible problem symptoms. [18] Perhaps, deep change in climate guided by genuine visions like those illustrated above will prove to be just such a high leverage intervention in many schools.

But our experience has also shown that such deep change is unlikely to happen from positive visions alone. Even sincerely felt visions drift into vague idealizations without commitment and ongoing work to 'see' reality more fully and honestly and the gaps between vision and reality.

This brings us to the second key point from the interviews, refining awareness. Here, the gap between climate surveys and lived experience of school climate is striking. The first problem concerns frequency of sampling. Almost all agree that climate must be sensed in the here and now. Yet, surveys are administered typically every year or even every other year. Second, structured surveys gather people's reported views categorized by the survey instrument's questions. Virtually all our interviewees stressed that being sensitive and perceptive means to honor our direct experience. "To articulate what it's like to be in the system at that moment is the feeling of the climate," says Dan Siegel. "Once that's translated into a word, it's not quite the feeling, and then once you take that word of the translated feeling and try to measure it, it's really not what it is." Steve Arnold noted above a related problem that comes from asking the same questions on repeated surveys: "If you asked the kids about their emotional states and then gave them the same assessment 2 or 3 months later, and they've already seen the assessment before … it's not clear how you solve for the contamination of prior inquiry when you try to get a clear assessment." Richie Davidson observed that such challenges are "found across many different research areas where the more subtle aspects of human experience are the target of study."

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18 Senge, 2007 ibid; The origin of this understanding comes from the work Jay W. Forrester: "Social systems are inherently insensitive to most policy changes that people select in an effort to alter the behavior of the system…. (yet) all of them seem to have a few sensitive influence points through which the behavior of the system can be changed. These influence points are not in the location where most people expect." Jay W. Forrester, "Counterintuitive Behavior of Social Systems", Technology Review, Vol. 73, No. 3, Jan. 1971, pp. 52-68. (available from www.constitution.org/ps/cbss.htm)

Moreover, applying conventional instruments like surveys carries with it a core assumption of mainstream positivistic research methods: observing a reality that exists independent of the observer. But this is questionable for a subject like climate, where the closer you get to the phenomenon itself – the moment-by-moment experience of climate – the further you are from the condition of an independent observer. To observe is to intervene or to participate. While this is a large problem for the traditional objective observer, this is an inescapable challenge of the practitioner such as the teacher or principal, or student, or parent.

Pondering this conundrum led us to a liberating perspective implicit in the interviews: focus on the needs of the practitioner and allow them to shape the research. This does not mean to abandon the basic aims of research to discover and understand what shapes climate but to embed those aims in a larger research-capacity building process. Learning how to help leaders at all levels develop refine awareness of what shapes a healthy school climate will require a creative new synthesis of the research, capacity building and practice.

For example, effective capacity building to develop healthy leadership ecologies, within and across schools and school districts, needs to be guided by innovative research. In particular, skilled practitioners need better feedback as to what is working and not, and this will only come through more disciplined powers of observation and refining awareness. Research that can guide developing refined awareness of practitioners will differ substantially from most mainstream research. It will demand researchers closely connected to practice and practitioners with the time and commitment to ongoing reflection. This is the sort of partnership Peter Dubinsky talked about when citing the importance of their ongoing collaboration with the HELP researchers from the University of British Colombia.

In summary, real progress around creating healthier school climate will entail cultivating complex interconnections between new approaches to research and new approaches to capacity building to shape practice. We need "awareness-based action research" that aspires equally to better theory and more sophisticated practice around the "inner" and "outer" dimensions of shaping school climate.

Refined Theory – learning to see

We believe that the first principle for harmonizing research and practice around transforming school climate is embracing profound inter-connectedness, both in how we think about climate itself as well as how we go about understanding it.

Many interviewees spoke to the former by stressing how relationships sit at the heart of climate, such as Helle Jensen's emphasis on cultivating "a relational focus" and Parvin

Ahmadi's comment, "it's all about relationship and connections." Dan Siegel talked about climate and inter-connectedness explicitly: "If a human being is considered a node in a system, then the system is comprised of the nodes and their interconnections and inter-actions with each other." From this perspective, Siegel naturally asks if the climate of a classroom "is one where the value of the generative field is creating trust and the feeling of inter-connection and where each member of the community is valued for contributing in a positive way to the benefit of the individuals and a larger whole?" Siegel's views grow from his work on "interpersonal neurobiology," a radical break with the conventional modern view of awareness as a product of separate individual minds. [19]His emphasis on inter-connectedness leads naturally to viewing awareness itself as both individual and collective: "I'm as much the system as a whole as I am the node in the system." [20]

Recognizing inter-connectedness will shape school climate research strategies as well – for example, by embracing rather than avoiding the inter-connection between observer and observed. Siegel criticizes the "disrespect for subjectivity and subjective experience in our general ways of assessing climate." He observes that when "an individual node of the system tries to articulate what it's like to be in that system at that moment... (this) feeling is a manifestation of information and energy flow and in that respect it's actually a more direct assessment, even though it's not numerical or measurable... to discard the subjective feeling of a node in a system as less worthy than something you might measure objectively is missing the point of *what the system is actually based on.*" Edgar Schein, one of our mentors around culture and intervention in complex systems, used to say: "The only way to under-stand a system is to try to change it" – which perhaps offers an explanation as to why it's such a remarkable approach for kids and students to acquire. The principle cuts both ways: in trying to change a system we better understand ourselves. This understanding seems to be shared by many of the advanced practitioners we interviewed, like Mike Maryanksi when he talks about school leaders learning "who am I?" and "What influences me?" in con-junction with their change efforts. In short, embracing the connection between observer and observed opens an ongoing inquiry into how we both operate and need to grow in order to produce qualitatively different outcomes.

Disciplined awareness-based action research that both deepens understanding of school climate and helps change leaders grow will require frameworks for distinguishing "the place from which the leader operates," as Otto Scharmer puts it. Building on diverse de-velopmental theorists like Robert Kegan, Scharmer distinguishes four basic levels in the "field structure of awareness:"

- Level 1.0 "downloading" - barely paying attention at all – awareness governed by habitual assumptions and projections

- Level 2.0 objective awareness ("open mind")- suspending assumptions to pay attention; subject-object awareness done as "objectively" as possible

- Level 3.0 empathetic awareness ("open heart") – sensing more fully, especially the experience of others, people and living systems more broadly

- Level 4.0 field awareness ("presencing") – relaxing ego-centric individual aware-ness, the subject-object (observer-observed) distinction disappears from expe-rience; when this occurs in a team or group, it can be described as "collective awareness of the collective" and is associated with deep trust and co-creating, akin to the traditional notion of dialogue (dia logos, meaning moving through); the state is hard to describe in words but familiar to hi-performing teams like dance troupes and jazz ensembles.

These four levels represent different levels of awareness of inter-connectedness. In par-ticular, Levels 1.0 and 2.0 both assume separation of observer and observed. At levels 3.0 and 4.0, people experience different qualities of inter-connection, starting with a stronger emotional connection with "the other" and evolving to where the very distinction be-tween "self" and "other" fades.

What matters, of course, is not concept but experience. How can we begin to understand experientially these shifts in awareness of inter-connectedness? Philosopher of science Henri Bortoft, who Scharmer interviewed in 1999, used Goethe's disciplined approach to observing living systems to illustrate. Bortoft started by explaining a critical distinction, between what he calls "the counterfeit whole," which we create by mentally conceptu-alizing how parts interrelate, and the "authentic whole," which we learn to perceive by "seeing from the whole to the part." He explained how Goethe studied plants. "It takes time. You have to slow down. You see, and you follow every detail – of a leaf, for example – in your imagination. This process is what Goethe called 'exact sensorial imagination.' You look at a leaf, and you create the shape of the leaf as precisely as possible in your mind. You move around the shape of the leaf in your mind, following every detail until the leaf becomes an image in your mind. You do this with one leaf, with another leaf, and

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19 Siegel, D., The Developing Mind, 1999
20 Siegel argues for a new word "mwe", the combination of "me" and "we", to signify our existence as both individual and a "node in as system" that produces awareness. See his new book, (tentative title)"MIND: A Journey to the Heart of Being Human."

so on, and suddenly you sense a movement, a dynamic movement, and you begin to see not the individual leaf, but the dynamic movement," the living plant that creates the leaf.[21]

Learning to see subtle processes of emergence in this way redefines science as generative practice. For Goethe, to practice science meant to continually develop one's capacity to see in this way. He well knew that the origin of the English word "theory" is the Greek theoria connected to the Greek thea, "the act of seeing," also the root of the English "theatre." Learning to seeing the ongoing dance between "part and whole" also transforms the observer-observed dichotomy, as we move beyond focusing on observing only what is tangible. In our understanding failing to integrate this perspective leads to the quite common gap between research and practice.

Combining this idea of seeing 'from the whole to the part' with the climate-culture distinction and – "Climate is the feeling in the moment of the underlying culture of the school," in Siegel's words – we can see outlines of a new discipline for understanding both climate and culture. Might it be that the core capacity that sophisticated practitioners develop is paying attention to climate and culture through a delicate holding (in awareness) of part and whole, sensing both the concrete climate and the underlying culture. Might just such a capacity by be central to the refined awareness of many of those interviewed above, who stressed their focus on underlying culture as something that gives rise to the climate. If so, this may give important clues for future leadership development.

Enhanced Practice – *awareness-oriented project learning*

With this insight in hand, we now see several ideas for how to do this offered in our interviews. Ed Porter suggested that: "The pillars on which a positive school climate can rest, (in order) to unfold as a generative social field are: awareness, presence, groundedness, inclusion, compassion, empathy and rituals." After a year of observing interactions in middle schools, Siegel suggested that we need to learn how to observing subtle dynamics of peoples' interactions around four dimensions: presence, attunement, resonance (or vocal rhythm matching), and trust: "If the teacher says something to a student, you can measure how the parts are played out. Are you present with me? Are you attuning to me? Do you resonate with me? Is trust developed? ... All this happens within about

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21 see Otto Scharmer interview with Bortoft: https://www.presencing.com/dol/bortoft;

Bortoft, H, The Wholeness of Nature (1996), and Presence (2005), Senge, P., C.O. Scharmer, J. Jaworski, and B.S. Flowers

3-5 seconds that constitute the present moment – this is something which we study in attachment theory all the time."

Diana Chapman-Walsh suggests a way to bring this sort of reflective observation into schools and classrooms in a structured way through an awareness-oriented approach to project learning - using a tool developed by Scharmer, the "Matrix of Social Evolution." This matrix combines the four basic levels of awareness listed above with four different "system levels" - from "individual", to the "team" or group, to the "organization" like school or school district, to the "larger system" like community and state education department. In his interview, Scharmer comments that people rarely attend to all these system levels in their change efforts, but "what's even more missing... is the 'vertical dimension' (of the matrix), which, in the framework of Theory U, is the four levels of consciousness." Chapman-Walsh describes how the Matrix was used in Scharmer's MIT MOOC (Massively Open On-line Course), U.Lab, where people take on change projects and report back to the large group "where the projects are in this matrix while at the same time reflecting on their personal growth and development using the matrix as well." [22] She envisions a similar process in classrooms where students "would pick something of their own choice they want to learn or a change they want to realize and you would support them in collecting information and in their journeys of exploration... a journey from self-awareness to awareness of other and the larger system in which you're operating."

"For the kids," Walsh continues, "this would translate into a personal process from an 'it's all about me'-focus to some way I want to make this system better and a genuine relatedness to the larger system. ...You're mapping something that's happening where individuals are being transformed and in that transformation they are bringing their new awareness into the environment that they're inhabiting while quickly taking small steps, trying something out, coming back and reflecting on it and adjusting the next steps." By filling in where they see themselves, their project team, and their class, and perhaps their school, they combine action and reflection: "They would be tracking the stages of a journey of going inward and then coming outward, the process of being personally transformed and then connected to a wider vision."

She also points out that a decade of progress with systems thinking and young children has shown that such project- or action learning around systemic change is not beyond the reach of even young children. "It's a bit like you see in the wonderful 'Borton boys'

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22 www.presencing.com/ego-to-eco/social-evolution; see also Scharmer, C.O and K. Kauefer, "Leading from the Emerging Future" and www.presencing.com

video, where the 3 little kids work on their differences on the playground." (The boys draw a systems map of a vicious cycle of "mean words – hurt feelings" they are caught in and explore how they can break the cycle. [23]) "An additional beauty of this perspective is that in the process of engaging kids in the schools in their own personal journeys of becoming aware they will need to be able to use the tools of both systems thinking and social and emotional learning, an integration that will help kids to become aware of the climate that they're creating at any given time, … (in ways that) could become an excellent assessment of generative social fields.," especially in settings where students and adults are developing self-awareness and relational competencies that can enhance reliability in reflecting and looking below surface emotions to deeper feelings and thoughts.

In his interview, Scharmer independently sketched out a similar idea for using the Matrix in school settings. "If we imagine this unfolding at the classroom level, …the whole point is a profound interest in kids and teachers assessing their relationships with each other as well as with their peers," and thereby building a capacity to "assess the relational space." To do this, "What we would need to do is to create a common language for awareness of different ways of connecting with each other." He goes on to say that, "My assumption is that kids are generally interested in this relational space and this would be a tool that would allow them to lean deeper into their own relational space."

Of course, just how capable are children at different personal developmental stages in reflecting on the social fields they co-create is an important research question. Richie Davidson noted that, "Depending on the age of the kids, they will have more or less meta-awareness that will enable them to actively reflect on the climate," and reminds us that we should "avoid using the term 'kid' or 'child' without being much more sensitive to developmental stage." He then added, "I am not even certain that it would be helpful to have them explicitly reflecting on the climate per se." When Davidson was reminded that many systems educators believe we tend to underestimate children's innate systems intelligence, which goes unexpressed because they lack developmentally appropriate tools (such as visual tools like behavior over time graphs and simple feedback loops), he agreed that this was an important research question. "I'm certainly open to attending to this innate systemic awareness in kids and bringing that more into explicit awareness by engaging them actively in processes around cultivation and assessment of school climate. If you can really use such systems tools in this, I would certainly strongly advocate for the utility of trying."

Here, too, Scharmer's U.Lab experience is thought provoking, though still untested in preK-12 school contexts. "We have taken a first step recently in U.Lab[24] with a listening-assessment tool. We've noticed that… it is actually possible to improve your listening skills and competence much faster than we thought it would be, when you have a daily practice to review this capacity with a small group of peers. What we learned is that in developing such skills, which would seem like massive and resource-demanding process, what is really required is a smart way of doing things. It actually requires engagement much more than it requires resources, as well as an enabling infrastructure." He adds that the individual listening skills are just a first step; "What we haven't done yet is functional equivalents at the relational level, which I see as very doable, but (at this point) we haven't yet developed the markers (for this relational level), the right kind of indicators that allow you to track an evolution in the quality of conversation in a group, … when a conversation move from polite to debate, from debate to dialogue and further on to co-creativity. We simply haven't really developed the assessment tools around this process… for everyone to assess at the end of the day how much time they've spent at each of these four levels of awareness – at which levels their interactions have taken place."

Doing all this with tens of thousands of participants in the MOOC has one other significant implication: "What's really interesting in this regard with these new (on-line) learning environments is that they're self-organized and as such much less expensive while at the same time more scalable than the old structures," something that could be very relevant given the resource constraints of education settings.

Clearly, from a research standpoint, an investigation like Walsh and Scharmer suggests poses significant challenges. But perhaps these are challenges that lay at the heart of really taking major steps in understanding and influencing more generative school climate. "Rethinking how we can do research around these processes is a deeper problem than just finding measures," says Walsh.

One could imagine such an approach building on projects that already introduce mindfulness, social-emotional learning, and/or systems thinking in schools, inviting students and educators to become reflective action researchers around how they co-create the social field, which in turn could further their ability to enable this unfolding. "Wouldn't it be interesting," says Walsh, "if the measures – instead of being standardized as survey questions and reports – were literal outcomes?"

23 www.watersfoundation.org "for first-grade problem using systems thinking tools to solve ongoing playground conflicts."

24 MITx course, "U.Lab: Transforming Business, Society, and Self"– see www.presencing. com or www.edx.org/course/transforming-business-society-self-u-lab-mitx-15-671x

In selected sites where resources permitted, a self-reflective action-research approach like this could be combined with more traditional research methods. For example, Davidson uses trained observers assessing classroom climate in their projects introducing mindfulness and warm-heartedness, taking "aggregate scores across observers: teacher reports, student reports and trained observer." It would be interesting to see how this more traditional research method might correlate with the individual and collective self-assessment that Walsh and Scharmer suggest.

Last, Walsh reminds us of the challenge embedded in all of this to traditional control-oriented school cultures. "Be prepared to let go. If you think you know the answer, then forget about it because the answer lies in the collective." Scharmer illustrates in terms of the relational self-assessment tool he hopes to develop: "If such a tool existed, it would in itself be an intervention because it would develop awareness and consciousness around these deeper levels of conversation and would therefore reveal the lack thereof in traditional school environments."

But, letting go does not mean anything goes. Like Goethe's disciplined methods of observation, doing this well requires skill and attention. You are "always caring for the container," says Walsh –convening and shepherding the conversation so that it reveals "what people in these local communities genuinely care about," and helps them develop the listening skills to "hear one another... "and then find ways to address these issues by prototyping... Your role is to keep people connected and to pay attention to the quality of these connections...."

Who could play such a role? One answer is the students themselves. "Its hard to imagine doing any of this without the students playing a key role," says Scharmer. In school settings where there was serious commitment to developing students' leadership capacities, it seems quite feasible to train students as facilitators of such processes. Joyce Bisso, recently retired superintendent of the Hewlett-Woodmere district in New York, says, "We found that our high school students themselves became our most skilled facilitators of community dialogue processes, which in turn proved a crucial element in their leadership development."

Though obviously a big step, it is fair to say that people like Walsh, Scharmer, Bisso, and many of he others we interviewed regard such an idea as quite feasible. "Really what we're moving towards is instead of bringing experts in to give you this score or that, it's more a process of self-assessment which requires dialogue at the level of the school around what we need to pay attention to and how to do so." Walsh adds, "Instead of going out and looking for experts to do the measurements, you turn the question around and say, 'We

have a (systems change) process of unfolding, a process of becoming we know (because) we've seen it over and over.' Our measurements need to be embedded in that process and at the same time to be a feedback system to that process, as well as a mapping of that process. As such, it becomes a process of the system revealing itself."

The fact that similar awareness-based change processes are unfolding through the U.Lab around the world also creates the possibilities for parallel investigations using similar methods across diverse settings, linking our quest to better understand generative fields in school culture and climate to similar inquiries in business, community organizations, and cross-organization and cross-sector change networks. For example, as Scharmer when pointed out the need for self-assessment tools at the group or relational level, he added, that such tools "would be useful regardless of setting." A small steering group comprised of people like our interviewees might guide such a process of identifying sites and action research approaches, including additional theoretical developments.

After finishing the first draft of this report in January 2016, we have been in conversations with our funders at the 1440 Foundation, other funders and several of the interviewees about how to take meaningful next steps into this exciting and also academically challenging territory. Our aspiration is to bring some of the remarkable insights that surfaced in the interviews into play in a variety of educational settings. One main idea is to bring focus and attention to children of all ages' capacity for systemic awareness and we hope to be able to initiate basic classroom based prototypes within too long, where we can begin to explore the potentials more fully. One goal here, would be to generate footage that can then eventually serve as a common point of reference for researchers and practitioners with whom we hope to gather in the fall and design actual pilot projects that will eventually help to establish the research approach to generative social fields and systemic intelligence.

Appendix A1

Practitioners

Parvin Ahmadi, Superintendent, Castro Valley Unified, Ca (PA)

Peter Dubinski, Superintendent, Barnaby, British Columbia (PD)

Armando Estrada, Founder and CEO, Via Educacion, Monterrey, Mexico (AE)

Helle Jensen, Psychologist and family therapist, CEO, Danish Society for the Promotion of Life Wisdom in Children (HJ)

Mike Marianski, retired Superintendent, Tahoma, Wa (MM)

Steve Martinez, Superintendent, Twin Rivers, Ca (SM)

Ed Porter, retired Superintendent, consultant, San Francisco, Ca (EP)

Conversations on School Climate and Social Fields, part 1: With Parvin Ahmadi
Superintendent, Castro Valley Unified, Ca (PA)

In conversation with Dr. Mette Miriam Boell

Reaching out to families whose children have historically been underserved is one of the first things I have done as a superintendent both in Pleasanton and currently in Castro Valley. During my first few months in Castro Valley, our Assistant superintendent of Educational Services and I invited our Latino families to a meeting. Around forty people showed up and when asked to share any concerns they have and tell us what we can do to further support them, they mostly sat quietly until we got them into small groups and asked them to discuss and list things they need. This is not unusual as families are not used to be "listened to" and are often invited to meetings and conferences to be told what they should do and spend most of their time listening and not speaking about their needs.

The concerns for them revolved around lack of access, gap in relationships, lack of information and generally – a lack of feeling welcome in the community. So, for them there was clearly a lack of a healthy climate. The story was much the same when we met with our African American families and would be much the same when we meet with our transgender, gay or lesbian students.

The term "white privilege" is often used in the American education to explain how some families and students feel more privileged than others. When we start peeling away the layers of this complex issue, we realize it's mostly about relationship and connections. When we talk about the achievement gap or the opportunity gap, I would say we are actually talking about a relationship gap and an expectation gap. Our focus must therefore first and foremost be on healthy supportive relationships between teachers and students. We can attempt to teach kids content, but if they don't feel valued as who they are, we are missing the mark. This is why the focus of our professional learning plan has centered around culturally and linguistically relevant teaching and restorative practices.

Each year that we administer the Healthy Kid Survey, a climate survey given to students, and adults and teachers, the results indicate our marginalized students have more connection to people outside of schools than inside our schools. This breaks my heart because

they spend the majority of their time in school. Teacher education programs put a strong focus on curriculum but not so much on pedagogy and how to reach all students. I doubt that our teacher education programs in general convey a clear message about the social and the human impact that teachers have and the importance of building relationships and healthy, supportive environments for kids. This insight should be a fundamental element of our teacher education programs. As a teacher, you could have a fabulous lesson or unit that you have planned to engage kids, but if kids don't feel they have a relationship with you and don't want to be there I am certain the impact of the lesson is limited. This is especially important for students who currently struggle in and out of school, the underprivileged, the socio economically disadvantaged, and our Latino and African American students.

These students already face challenges that come with poverty outside of school or are victims of racism in and out of school, resulting in lack of resources, tutoring, sports, music and many other things that students who are privileged have access to. They can't look forward to school if there is nothing for them to connect too and struggle academically and often go home where they face many challenges in their communities. I don't know how we expect kids to learn under such circumstances. For these students, schools is often the most consistent thing in their lives, so when we miss the mark, the negative impact is exponential.

I recently read an article about what the author calls the "education debt". The author talks about how the "opportunity gap" is actually a debt that we owe these children. He emphasizes the importance of relationships and how teachers can support students who have challenges. The emotional toll some of our students have to pay due to their personal circumstances is exasperated by lack of relationships and support in our schools.

Access to instruction is impacted by other issues in our school as well. Culturally responsive teaching requires that we accommodate for the various modalities in which students learn. The cookie cutter approach in seating arrangements, expectations about noise level and response to questions, lack of flexibility in the way students show their mastery, their general access to resources and information all impact student learning and achievement.

Kids are very good at picking up clues and can identify genuine care and compassion and vice versa. Students' unfiltered expressions about how they feel offend teachers if their authenticity is questioned by kids. Fortunately, many districts across the US have adapted the federal funded program called Positive Behavior Intervention System (PBIS). Castro Valley is in its third year of implementation.

PBIS practices were first introduced in elementary schools in Castro Valley, then middle, and this year our high school teachers and students are being trained to implement it. Restorative practices have also been implemented at Castro Valley High School with great success. Our emphasis on restorative practices is reflected in our district's commitment to expanding training to all teachers in high schools and middle school next year so that every teacher is equipped with skills to hold and train students in holding restorative circles.

Our five social workers work with a coordinator who oversees our behavioral and mental health services in the District. PBIS and restorative practices center around respect, restoring one's dignity and building community. Despite a comprehensive focus on social and emotional health of students with these best practices, we are still at the beginning of our journey. Although the vast majority of our teachers employ those best practices, I still hear stories and observe things in some of our classrooms that are in direct contradiction to creating a positive learning environment for all students that we continue to promote.

It takes courage to address issues related to school climate. It requires a paradigm shift, a new mindset, and certainly time. I know I must be patient as this cultural shift takes time, at times there is an urgent need to address adult behavior immediately on behalf of children. Our goal is to act with the heart in mind, but there are times where we must show courage and address inappropriate practices head on. In these circumstances, we make it clear that certain types of behaviors are unacceptable and must change. Period!

Creating a healthy school and classroom climate must be our primary focus. There is a great need for ongoing professional learning and having only two days per year dedicated to professional development for educators is counter intuitive to best practices we often talk about. My hope is that every educator will sign an oath promising to be there for all children and speak up and advocate for students if they become aware of inequities. ALL means ALL. Our district's equity commitments which are posted in every classroom encourage each and every one of us to speak up and advocate for all students especially those who are historically underserved.

A sense of calm is evident in classrooms where there are healthy relationships between teachers and students. Kids seem happy and at ease. It's not something you can really put your fingers on necessarily or measure precisely; you can see it reflected in the kind of language the teacher uses and the level of student engagement. It reveals a sense of comfort when you walk into such a classroom and a huge contrast when it does not exist.

Students do not get to choose their teachers or parents. Following the advice of a National Teacher of the Year, Jason Cameron, "We cannot rest until every one of us can be comfortable placing our own children in any public school in the nation." There is no

room for being independent practitioners and leaving the fate of our children to chance. Students' zip codes or their unique personal circumstances cannot and should not determine the kind of education they receive.

At times, I feel overwhelmed by the magnitude of this important work. I say to myself, "one step at a time", and "keep your equity lens on all the time".

We are now in the process of planning our new district strategic plan. I am happy to say that after coming up with a draft of the strategic plan and having gone through "listening campaigns" where we have truly listened to hundreds of staff, community members, parents and students, emerging themes include respect for individual needs of students, care and compassion, the commitment that our students must feel valued and affirmed, and the expectation that each student can identify at least one adult in school as his/her advocate.

With regards to instruments, I believe in multiple measure and gathering data in various ways. I walk through classrooms with principals every week. That is one of the best ways for me to see the type of climate that exist in our classrooms and schools. One of the other ways in which I have found very effective is conducting listening campaigns and forming focus groups with students. Short surveys also can be effective although they need to be thoughtfully designed in order to be most effective. The data system that we use as a part of PBIS called "SWISS" provides very useful information at a granule level down to the time of day, the adult involved, the infraction and much more. Having access to this sort of data has helped identify practices and procedures that lend themselves to a positive climate vs. a negative one. For example, when administrators found out that at their school students were getting in trouble disproportionally, they dug deep into the data and discovered that an archaic rule related to use of cell phone needed to be updated and modified to reflect our philosophy about the use of technology much in line with today's evolving world. The SWISS data also indicated the disproportional use of other codes of conduct with various ethnic groups, resulting in the need for training focused on equity and cultural competency.

Creating a positive school and classroom environment takes all of us working together; students taking charge of their learning, healthy relationships between staff and students, appropriate resources, parents welcomes and engaged in our school communities, robust professional development plan, wrap around behavioral services, and the need to affirm and validate all students' cultures and backgrounds.

Conversations on school Climate and Social Fields, part 1: With Peter Dubinsky
Director of Instruction, Barnaby, British Columbia (PD)

In conversation with Dr. Mette Miriam Boell

We started working actively on school climate because teachers were frustrated that they couldn't teach as effectively as they wanted to, because they were spending so much time with behavior management and counseling that they couldn't teach. So, we collectively addressed this as a year-long action research project to determine why they were feeling that way, what was the root cause. We looked at their instructional practices to determine if there was a lack of engagement, then we looked at the needs of the kids – to see if the basic needs of the kids were met. We found out that many kids would come to school hungry. But underlying it all we found, that the kids were illiterate in the CASEL "big 5" – the key social-emotional competences – and in self-awareness in particular, so that became our key area of focus, because we found that when kids came to school unaware of how they were, they couldn't really learn very well. Our community was one of many single household parents, a lot of depression and other types of struggle and the kids inability to be self-aware while carrying that struggle with them to school, caused many of the problems the teachers were addressing. Therefore, our focus was on SEL and primarily emotional literacy.

We were very fortunate to have great researchers from UBC involved from onset on, who were already studying school climate. By that they mean the organization, the communication and the relationships of the school. The research created a way to study how the students feel about their school and if they feel safe and cared for at school. That determined what the school climate is, from the students perspective. We didn't specifically measure how the staff felt about the school, but we did that in a non-scientific, more managerial way which meant that issues were addressed as soon as possible and creating an atmosphere of care and well-being for everyone in school.

In practical terms we established a common language for everyone in our school, from k-12 and all school personnel while at the same time involving the parents and keeping them informed about how we spoke, why we did so and how they could best support the process going forward. We chose to focus on the 5 competences of SEL, we focused

on the direct feedback from the students, what they were telling us and we engaged in professional development with our staff where we had a training around Marc Brackett's RULER-approach and the we developed the common language from Stephen Covey's 7 Habits of Highly Effective People as our common language, which is what we took to the parents. So, we were focusing on student leadership and student's ability to express and identify their emotions. And then we used the language of the 7 habits as a unifying model for kids, teachers and parents – primarily because it is easy for everyone to understand – not "edu-babble" – and weather you're 7 years old or a parent of a 7 year old, the language is very accessible and easy to grasp and make sense of.

We had complete consensus from the teachers and there were no expectation for the teachers to go deeper than this – many did, but it wasn't a requirement. Our common school focus was on student leadership and our common goal was to develop everyone's emotional literacy. Many teachers took things to next levels, e.g. wanted to teach empathy and other things in class, but everyone were committed to this baseline and that really helped the climate. Teachers would spend time in each other's classrooms to learn from each other and they began to share more widely what they felt was difficult in their professions, so in this sense the teachers felt that our school was a safe space just as much as the students did.

We literally developed it all along the way, before we started the collaboration with UBC we didn't even know what we were looking for, we just knew we wanted our kids to be happier and our teachers to be able to feel they had meaningful workdays. When we then learned that this particular type of focus was actually school climate, we continued with a sharper focus on "norms, beliefs, values and ideas" that manifest in strong relationships around our school community. We knew it would probably get worse before it got better, because that's what happens when you start focusing on things, and we never tried to hide from that. Everyone was involved, from custodians to secretaries to assistants and secretaries and it needed to be that way, that this shared safe space involved everyone and that we all had awareness of the language and aspirations.

Kids come to school being dependent beings and we wanted to teach them not only to become independent but also to realize that they (and we) are interdependent. That is why it was essential that everyone was involved. The advantage of using this specific common language was that it's really well known to everyone – it was out there already. We did a lot of communicating with the parents, from first day of school, with newsletters and updating our website and we also offered parent training and community building, not just around the 7 habits but also on bullying and other things we were working on. That helped creating a climate that was much more open than it had been beforehand.

We would regularly ask the students between 4th and 7th grade to give feedback on their experience of the climate, questions about discrimination, teacher support, well-being, emotional regulation, bonding and many others that are constantly developing into better and more detailed questions. I, as a principal, would also fill out surveys on school climate, but the teachers and the parents were not actively involved in that part of the work. We did however create a structure at school, where teachers could say and report about how they felt. So when we met, our first question would be "so, what's not working?". We had specific practices – the spiral of inquiry – first scan: what's going on, based on that: what does our focus need to be, then the questions and then the action plan and after that we check – how has this worked, what is not working, what did we learn, where do we need to improve, what's the new learning we need to take into account? We would constantly go through the spiral with a "So what? Now what?"-attitude. After a few years of these focused practices it became tangible, everyone could feel the great climate immediately when they came to the school.

And while we were feeling really good about the progress and the thriving of both students and teachers, we still had one issue that didn't really become solved: when students were having problems among each other, they wouldn't seek adult advice. We didn't know how to handle this, how to get the kids to have confidence enough in the adults at school, to have them report about their conflicts. Again, the insightful help from UBC proved its worth: Kids do not bring their conflicts to adults, it's not a sign of negative well-being, it's just a sign of them being kids. So, we ended up training the older students in conflict management as part of their leadership abilities, and that turn out to work extremely well. This was a great learning for us, also for us to discover alternative routes to less conflict. And the increased ownership for the older kids was just remarkable.

One of our key points of awareness is exactly that: sustainability and succession. Our approach was not a particular program, no script no fixed lesson plans – we developed a common mind-set. It was a philosophy with a broad support in our local community, so when you came in as an outsider it was very clear what you needed to learn in order to participate and contribute to the positive climate. I think that's critical and as we move forward as a district, this has been a crucial point. It cannot be program based, you may use programs as support but it cannot be "we're a this and that program school". That differentiation has a huge affect on the climate of a school because there can be shared ownership of the process and engagement in the school climate. We found that the less prescription, the better. We only had one rule: when you meet someone, you must greet them. You have to make eye contact and say hello to people, whenever you met them. That was true for everyone at school, both students and adults. This way, it became a personal responsibility to everyone at our school.

The way to make this sense of the school available to others depends on certain structures, for example leadership is a very important component but also there is a need for participatory buy-in, both parents and teachers need to be involved. And the sense of autonomy that people can actually chose in which ways they want to participate, another component is the student learning, the instructional component and the achievements and students success need to be a central focus as well.

Talking about the overlap of school climate and social fields, I would say that it takes a critical mass to ensure a stable generative social field. You want several of the "magical teachers" and you want them to collaborate in ways that take them out of their classrooms and increase their overall influence at the school. You want the "infectious" classrooms to infect (in a positive way) the other teachers and the other classrooms – it creates an ebb and flow atmosphere of the entire schools where both teachers and students share and open up. It's a dissolving of the walls of the schools. A great indicator is to overhear the way the teachers speak about their students and their classrooms over lunch, shape the identity of the school. In itself, this entirety of climate becomes a neuro-restorative field.

Conversations on School Climate and Social Fields, part 1: With Armando Estrada

Founder and CEO, Via Educacion, Monterrey, Mexico (AE)

In conversation with Dr. Mette Miriam Boell and Prof. Peter Senge

Armando Estrada's comments on questions formulated by Peter and Mette.

1. How do you think about the climate of a school or school setting in your work?

School climate has to be recognized as one essential dimension of a quality education, this is because school climate is essential to the constant renewal of the school culture. According to three studies made by the UNESCO's Latin-American Laboratory for Assessment of the Quality of Education or LLECE; (1997, 2006 and 2013) the school climate is the single most important variable that determines student achievement in the schools of Latin America.

When working with principals as well as parents and teachers from school communities, it looks like they see school climate is something inherent to their work, as something that flows naturally yet, it also feels like they don't have power or capacities to promote or in other cases prevent a certain kind of school climate. More often they relate school climate with something they have to deal with every once in a while when there is conflict between students, or there are bullying episodes.

School climate is something vaguely identified and described by many of the school stakeholders. With pretty basic notions of it, they seem to don't have a clear understanding of its importance and its role in student achievement. Fewer school leaders identify school climate as something they have to nurture, develop and improve continuously with the participation of many; and as something they are part of.

In general, the Ministry of Education and the school authorities have offered limited tools and methods to promote a healthy and vigorous school environment and more important; they have not offered resources and methodologies to promote a healthier school culture, a culture that is the product of relations and interactions between the different people involved in education. There is a huge need of principles, reference models and information about the school climate and its importance for the life of the school.

2. How does this relate to what you consider you core work?

We work on initiatives based on the renewal of the school culture and the development of learning communities throughout the school and the community around the school. The school climate is an indicator of the kinds of relations that prevail in the school environment. The relations determine the maturity of coexistence and well being in the communities. These include not only relations among students, but between the entire members of the school community.

Without a profound renewal of the school culture, the schools will keep pretending as if they were doing something important for the students, but in fact -sadly, they will keep wasting the precious time that takes the formation of a holistic human being. The renewal of the school culture then, could not happen without the renewal of the school climate, meaning, the renewal of the relations between all the people involved in the education of children.

The school is a very particular type of workspace. The school climate is almost tangible, and the parents reported as how welcome they feel when they com to the school, or how well the teachers feel about the work environment. All the relations built within the school are core to the learning of the students, they are essential to the way students learn, and similar to what happens in a family or a couple, you just can't pretend to be in a meaningful relationship, it doesn't work that way.

The relations influence greatly the kind of environment the community is ready to adopt. The kind of commitments and processes that the entire community will have to embrace, the vision they share together and the possibility of make that vision come true. Everything would or wouldn't be possible depending on the kind of relations the school community have, depending on the school climate.

When working with school leaders in the renewal of the school culture, we have learned that a positive school climate cannot be enforced, basically anything can be enforced. The school desire to achieve fresher stages of school culture has to be build from within the school members. This is why it is important to show what they have achieved, they current stage and what is out there to achieve, from a formative perspective.

3. As you, armando, and your colleagues work from your history in civic education and community engagement, how has it influenced your approach to school climate?

From the standpoint of the developing, implementing and evaluating citizenship education and participation programs in Mexico, the school climate is one of the key elements to keep congruency between the curriculum and the pedagogical practices at the classroom level.

The school climate determines the way the school members communicate, collaborate and collectively learn from one another in a healthy environment, where all participants in the education of children – school authorities, teachers, parents and students – know they role and act systemically to nurture and improve this environment continuously.

The evidence from our programs show that the adequate relations and interactions between students and teachers are capable of building trust and the empowerment in students, they feel listened, challenged and supported so they are able to embrace learning in more meaningful and respectful ways. They learn how to belong to society and have a productive role in it, they recognize and are critical about the failures of the social structures and interactions. They acknowledge the need of co responsibility and solidarity that is needed in the communities to function more wisely.

In the case of teachers and school members, the fact they are guides of students' development of new ways of collaboration for social good and they are witnesses of how they are able to solve problems together is very motivating as they have reported.

The experience shows these interactions and ways to collaborate are essential elements to learning and they are key in terms of efficacy in the citizenship curriculum.

4. In all these areas, how do you think about shaping a more social generative field?

A systemic framework is needed to approach the school climate as a mean to have a renewed school culture. It is important to develop the framework from the perspective of a social generative field and been able to put it in a way that is feasible for the school leaders and the community to implement and understand in its full potential. I believe the system of interactions of a school is yet to be developed and perhaps, it corresponds to every school to develop its own path to build a social generative field, but there is certainly a need for guidelines, reference models and resources to help.

They way we learn shapes the way we act and reflect about our lives. If this is the common vision and purpose for every person involved in the education of children at the school level and even in the school authority levels, we will take education seriously and the social generative field would be rich and resourceful.

Conversations on School Climate and Social Fields, part 1: With Helle Jensen

Psychologist; President of The Danish Society for the Promotion of Life Wisdom in Children (HJ)

In conversation with Dr. Mette Miriam Boell

When you first talked about social fields, I immediately thought "well, that's really what we're trying to accomplish with the natural competences and empathy work". In Denmark we have a strong tradition for equality and respect in the classroom. In our work around the empathy education and the social competences, we are pretty much focusing on all the different factors that may lead to a positive school climate and generative social fields in the schools. The approach we have in The Danish Society for the Promotion of Life Wisdom in Children, comes with a strong focus on social competences as a mean to cultivate a positive climate. One practical example is that we help schools moving from a "school/home" approach to a "teacher/parent and student" approach – it's a conscious shift from the institutional to the relational.

In general, we focus on cultivating an awareness of the structural shifts needed to bring the relational to the center of attention. Often, it's a matter of the simple question: "what's really happening here?". Our work grew out of family therapy and systemic approaches to families, institutions and organizations. When you look at the relation between a teacher and a child, both will bring disturbance to the relation. So, in our work with teachers we help them to a place where they can ask themselves "what do I do that disturbs this relation?" not from a position of self-blame, but knowing that every person brings disturbance into relations and at the same time knowing everyone has the ability to increase one's self-awareness around this matter. The Swedish child psychiatrist Lars Gustavson expresses it like this: "we see each other through a window and it's always possible to clean that window at least from one's own side of it".

What we see when the relational focus is absent – as is the case in most schools – what we term the "natural competencies" disappear. The five natural competencies that all our exercises are based on are competencies which are readily available to everyone: body-awareness, awareness of breathing, empathic feelings, creativity, and focused awareness. When they are neglected, the natural authority and authenticity disappears as well. So, we end up with most relations where people are not actually present in the contact – in Danish we have a saying that translates to "they're out of themselves".

When the teacher is not present in the relation, the child can never be met. Therefore, our initial priority is to work with the teachers because whoever has the greatest power in a relation also has the greater responsibility – so to stay in the metaphor – the teacher is responsible to initiate the cleansing of her side of the window. Once we have worked with the teachers around these insights it's much more effortless to begin working with the children. The usual, and sometimes uncomfortable, situation for the teacher is that it's their personal self-awareness and emotional literacy that's a primary focus. But whenever anyone is "out of themselves" they lose grounding. And, with the loss of grounding, comes a loss of empathy - it becomes difficult to level with other people. It's almost like a shut-down of our natural kindness and compassion. What we help the teachers with is to learn how to detect where the frustration or irritation with the child or the class stems from and then help them to process this independently, outside the relation with the child. Naturally, the term teacher can be replaced with anyone who is the more powerful or more responsible part of the relation: the leader, the parent, the coach. Whenever other people are in one's care, one is obliged to come to realize what one brings to the relation.

One of the concrete exercises we emphasize is structured dialogues. This allows people to acquire a personal language that is common for all and supports emotional literacy. We explore what people lose when they "are out of themselves" therefore, our work comes more in the form of a guided process than a program. Gradually, we expand the focus to also include the relations between a teacher and a class, where the responsibility of the teacher is that of the general mood of the class, which very well can translate into your terminology of social fields. One key point in this approach is, that when the teacher steps up to the relations with the kids as described here, the children themselves to a very large degree model that behavior also. Most parents share the experience that it's not what you tell your kids to do they end up doing, it's how you behave that sets the standards. It's what you do with yourself when under pressure that becomes the role model for the children under your influence. And again, this is equally true for teachers, leaders and parents.

A basic premise is for teachers (and others) to learn how to endure what is emotionally uncomfortable and to avoid shutting down when, for example, someone is critical or angry. With that comes a shift of mindset that conflicts are natural and not something to be avoided, that it is ok to commit flaws and that this approach needs to be integrated into the relations from onset on. Often, you will see schools and organizations where the espoused value is to show that "we include everyone," but it only really lasts until differences and conflicts appear.

Here, the contemplative, meditative side of our work serves as a support structure: it makes it more bearable to stay with the uncomfortable. It's important to understand that it's not because people are bad persons or shallow beings that this show-value is so widespread.

If you ever spend time in a teachers' lunchroom in any regular school, the bullying taking place there will shock you – it's really much worse than that which takes place among the kids on the playground. Teachers tend to bully students as well, very often the chosen few that are picked on again and again. It's the teacher's powerlessness that leads to this behavior. We empower teachers so they become able to see behind the surface of the ever-annoying student that just won't behave. We help them to a point where they can begin to explore what is actually going on with this kid, with myself, with this relation? Since these natural competencies cannot thrive and develop in a vacuum, the teachers have to embody the training themselves, so that they can hold the space for the children to grow. I work in many places around the world, and I see a great advantage we have here in Scandinavia – this radical idea of children as "real people" from onset on, is still pretty avant-garde when you look at the state of affairs in many other countries, even in Europe. With that, unfortunately, has also come a tendency towards that show-value: we pride ourselves of our progressive ways, while hesitating to take a closer look at where we're at, with many stressed out teachers and stressed out children.

When working with social fields and helping them to become generative it's important to work on multiple levels at the same time - and people have to practice a lot. The processes need to be energized from outside and over a longer period of time, for it to fester and become self-sustaining. It's necessary to involve more persons from the same institution. Over time this approach also needs to be articulated up front, so when new people are hired, they'll know in advance that this is part of the work and profile of the school or organization. All implementation has to be voluntary; people have to have a genuine interest in a moving away from form and achievement towards being and existence. It becomes a question of standing in relation to oneself with integrity and self-worth(self-esteem) as opposed to the much more common standing in completion with the other with value to show and self-confidence. This, we believe, is the most precise key to opening the heart.

That which identifies the relations become what we would like to identify the larger field: respect, equality, compassion. We talk about the moods and atmospheres of the field and the really deep training is to take care of oneself as well as of the community and social relations, this is a refined balance that needs to be practiced all the time. Everybody has to take responsibility of themselves at all times in every moment. From that position, it becomes clear how the energy is moving through the field: right here, right now.

This is not a question of analyzing - it's a practice everyone can acquire.

Conversations on School Climate and Social Fields, part 1: With Mike Maryanski
retired Superintendent, Tahoma, Wa (MM)

In conversation with Dr. Mette Miriam Boell

I'm retired now but I was a superintendent for very many years. We never really focused on school climate as such, it was more about creating a school culture modeled on a learning organization journey. I'll be happy to share with you what influenced our journey. It's my second year of retirement, but if you speak to people in my old district I think you will find that the foundation of that organization is still in place.

The journey began by talking about our aspirations for young people in our schools and creating the capacity to engage in difficult conversations. Before this, our primary focus was on adults – what they needed and our behavior was driven by what was best for them. That didn't feel good to us, so we committed to building the capacity to engage in difficult conversations.

We were influenced by the three legs of the learning organization stool and spent a lot of time refining our capacity for reflective conversations. So, in our system we began to teach about mental models and ladders of inference and how they influenced our conversations. Over time, we were able to shift the focus from adults to how we could better serve the young people - and on how the behavior of the adults influenced the experiences of young people? Unfortunately, we didn't engage the young people in the reflective conversations – that's one of the areas where we were remiss and I would definitely change that if I started a process like this again. I believe that our journey would have been influenced and the pace different if we had been able to include the voice of our young people in the conversation – we would have been able to do it more quickly. When we look back, we feel that was an error.

To increase our tolerance for difficult conversations we used the left-hand column, only we named it "public/private" conversation. Then we looked at protocols to find out how these conversations would be able to spread throughout our system. We also taught and used balancing advocacy and inquiry and Interaction Choices to support our growth.

I can tell you a story about aspiration: a number of years ago, I began to use a phrase "quality learning for every child, every day in every classroom". We didn't put it on posters or stickers on the walls, but in all of our meetings I would share this – I felt responsible as a leader to have a teachable point of view and this phrase became that. It became a part of what I did and it began spreading and eventually became the shared aspiration of the leadership team and it began influencing what adults did in the buildings. From that, we actively began building role models for our young people – we wanted them to engage with each other with an awareness of what it looked and sounded like to be part of their conversations. Also, we wanted to influence the "parking lot" conversations amongst the adults so that we all dared to bring these conversations into the formal space where they should be held. Our focus was: "When adults are doing it, what does it look and feel like for the kids," knowing that they would model our behavior and codes of conduct.

The principals in our district were involved in the journey and my feeling is that all of them embraced it with sincerity, and then they would, to varying degrees, go back and teach it to their teachers and other people in their buildings. We learned that those who bought into our tools and common language most deeply were the ones capable of changing the culture in their buildings most effectively and within the shortest period of time. Their cultures embraced change more rapidly because it came with a deep conviction. We were not very data driven but had more of a practitioners orientation. We would use the different tools in our meetings and our approaches to each other and then the leadership teams would take that learning to the building level and sometimes it would even disperse into the classroom. Using the tools and our approaches increased our capacity for listening and most importantly of all, we could share our journey with the local community and parents.

Our primary and single most important learning was that without reflective conversations, nothing works and that the reflective conversations were the underlying premise for the success of any tool. We became able to sustain emotionally charged conversations addressing issues that we cared deeply about as well as topics that were very personal – and of course, the aspirations are always emotional. So, when increasing this emotional literacy, we cultivated a general awareness in people of "who am I?" and "What influences me?" – the essence of what personal mastery is all about.

To summarize, we created the capacity identify and work through the interpersonal mush that's always present in a meeting with multiple people. We would have a better understanding of where everyone was at and it became clear to us that if you don't know what you feel, you'll never know what you want. I believe we succeeded in creating generative social fields in our district and the culture – or school climate; this is a byproduct of what we all did, every day. In the same sense, I believe that the "magical classroom" is a byproduct of personal mastery, trustful relations and leaders and teachers who have integrated the approach from the 3-legged stool. We created a culture that embraced this, and we were aligned in the deep understanding that we are here for our young people. When you can navigate and communicate such a belief with the clarity of the tools, there will be greater trust in the system. Clearly, you don't get to generative social fields by talking about it; you get to it with self-awareness, alignment and lots of practice.

Conversations on School Climate and Social Fields, part 1:
With Dr. Steve Martinez

Superintendent, Twin Rivers, Ca (SM)

In conversation with Dr. Mette Miriam Boell

In our district (Twin Rivers, CA) we don't operate with a specific approach to school climate. However, we work intensively on the culture in and around schools and we have a list of data points that we use as reference for that work, which probably sums up to our overall focus on aspects of school climate. We primarily focus on suspension rates and students attendance on graduation rates and then we have a parent/student survey. You may say that when these factors are all improving it leads to students become more engaged in their education and that creates a much better school climate for all.

The information from the different data points feed our reflective processes at our superintendent's office, we analyze or look at the stories behind the data, for example we wanted to increase parent engagement, because as a low-income 80% free- and reduced lunch district, parents tended to not be very engaged in school and if they were, they would often have a negative input instead of being supportive because they lacked trust in us and in the educational system in general. So, we knew it would be good for the parents to learn how to become involved in a supportive manner, it would help the students to become more successful and it would generate a better climate for the entire community. Therefore, we created a parent university, where parents in our district now have a chance to learn about how better to support their kids; how and when they should be thinking about college education for the students and many other things such as general strategies for supporting your children, also outside school. As you would probably get a sense of, we rely on our understanding and experience with the district and the people here and then act on the data we gather, to shape the innovations.

For such a high poverty area it is quite exceptional that our teachers are really engaged and they stay on board for much longer than is the case in similar settings elsewhere. We do what we can to support them, but mostly, I think it's they stay because they know exactly what to expect. That creates a lot of safety – everyone here knows what to expect. I personally interview everyone who applies for open positions as teachers and principals. And everyone who works in the schools, including the custodians, the school bus drivers, the office managers and so on, get a week-long course when they're first hired, where they learn about our practices and expectations. And because we tell them exactly what they can expect from us they also learn what we expect of them. We emphasize a culture of greeting and smiling and acknowledging each other. We want people to feel safe and to feel connected and engaged, once you build a culture like this, it becomes a culture of role models for the kids. And perhaps I should state explicitly here: to us, teaching and learning is the most important thing there is!

When we hire people, we try to find "the right people". And since our primary approach to education is "people not programs", we are likely helping to build the school climate from onset on. A bad climate comes from having "the wrong kind of people" on board, then instruction in the classrooms will be poor and the beliefs in our kids decline – so I really can't understate the importance of the role of the adults in student achievement and general well-being.

We don't have a strict focus on SEL but we do have:

- "character counts"- types of curriculum in the classrooms.

- all 1st and 2nd grade teachers have mentors

- pedagogical support and professional development to everyone, from the superintendent office.

- a strong focus on restorative justice and all our 2nd grade teachers have participated in this training, so there is an expectation for this to be a focus point in all schools.

- classroom management pd may be provided when needed.

All of this is part of developing a good culture, and again, it helps us to articulate the expectation and creates transparency. We operate like this because we believe we control which culture we create, we're responsible for it. And we want to do the things that we agree to do 1st class, all our kids deserve that. You see, with so many different variables, it is necessary to take a systems thinking approach. To me, the real power of systems thinking is, that you can identify the gaps and as such, identify where teachers cannot be as efficient as they would like to be and as we would like them to be. So, we take care of the support structures around the teachers and free up their time to teach. This makes them feel important – and when they feel valued and important, they start to behave like that, which again makes them better role models for the students.

We are attempting to create generative social fields in our district in a quite focused and practical way: we have leadership teams with teachers, instructional coaches, principals and vice-principals where we facilitate deep conversations about the big issues. When utilizing systems tools it brings awareness to the conditions and barriers to "the magical classroom". The process of deep learning is brought forth with acknowledging what holds us back. And that's where the focus on individual and team capacity building is. You have to know, really see, that you're in a certain space before you can begin to change it into the space you want to be in. Systems thinking and the systems tools give us action – it gets us to that point where we see the space we're in. And really, our district office resembles "the magical classroom", it's a sustainable learning organization, with cycles of continuous empowerment of the people who work here. And if we do things like this, if we do things right – a higher and more positive impact on our surroundings is the consequence.

Conversations on School Climate and Social Fields, part 1: With Ed Porter

retired Superintendent, consultant, San Francisco, Ca (EP)

In conversation with Dr. Mette Miriam Boell

School climate is how being in a school activates or touches all the senses. Whenever I walk into a new school, I do it with as open awareness as possible. I get impressions and I notice them, how they make me feel and think. At first, when approaching the new school, I notice the architecture and design: what were these buildings intended for? How do they make me feel? This is an initial level that reveals something about what kind of things the school buildings were intended for, what type of things can take place in such a space. For instance if you come to a campus or a play ground, is the space walled up are there gates and fences with barbwire or are the structures open and welcoming?

The next level is entering the building, is there laughter in the air? What volume are different voices coming out at you at? What is the general sense of the climate that's being created and projected from the space in its entirety? Then I notice the people: are they approaching me as a welcome guest or in a control-like manner as if I'm a suspicious stranger? This is really a climate instigator, how people are approached when they enter the space of the school.

Whenever possible, I then try to sense out some of the classrooms to notice if the manner of teaching comes in form of a unidirectional projection of knowledge from the teacher to one student at a time, or if there is a shared quality of the classroom space$. Again, I listen to the volume of the voices and the difference in intonation (specifics – what does he listen for or what catches his attention – for positive or negative?). Some specifics – one can differentiate a command tone of voice from an inquiry tone of voice, condescension is often detectable, some teachers yell a lot even with not angry, it's hard to hear someone when they're yelling – one only feels the spite, some teachers use a derisive or sarcastic tone while the words seem harmless. Kids who are regularly not valued become hypersensitive to early signs of possible abuse. Voice and tone may be early signs. This is a survival skill kids learn. It's hard to be open to instruction when students fear mal-intent. I sometimes see or sense presence of trust or it's absence. I see or sense words and actions that cause kids to move into defense mode.

When I first begin to speak with either the principal or the teachers, I notice if there is a sense of purposefulness: what is the purpose of what they're doing and do they share this perspective?

With the students I look for their level of expressed joy and their level of connection, do they feel empowered? Do they meet me and greet me as hosts of their school? What is the general mood with which they approach me as an outsider? Are they welcoming with an absence of fear and suspicion? The level of open-mindedness is often reflected in both students and teachers and at some schools, teachers feel as controlled as the students does. By encountering either students or teachers you can often tell what the general assumption about people who're not members of the community, and you will most likely find, that both groups are reflecting a similar set of assumptions.

When I get to the principal's office, I notice how I'm being greeted, or should I say IF I'm even being greeted or if I'm being ignored by the secretary. I notice what people are doing, how parents are addressed and how kids who're sent to the office for bad behavior or other reasons are being met when they show up (some secretaries show such empathy that you can visibly see the student's stress dissolve. Others bark commands or are so indifferent that you see the stress deepen). The people in the waiting room are first in line of contact with students, parents and outsiders and as such they have a great influence on the overall climate of the school. Usually you see that the secretaries and assistants are either machine-like or very human in their contact.

For the climate of the classroom I notice if there is primarily unidirectional teaching or cross-interactive teaching taking place (is there a flow of communication among the students, not just waiting to respond to the teacher). Is there a productive noise with an emphasis of the relationships being formed throughout the group of people in the classroom, or is it mainly teacher controlled (centered). Often you will hear students, when asked about their assignments, that they're either replying they're "doing the work sheet" or if they feel a sense of ownership of what they're doing, they'll refer to it as "I'm comparing how school in colonial culture was different from today (engaged in a task that they own)". I look for level of passion, concern and connection in the students, because it reveals to me if it makes sense for them what they're doing or if they're primarily doing it for the sake of the teacher. This all comes down to not so much if they like what they're doing, but more if they assume responsibility for the work whether they like it or not.

All of these above mentioned factors compose the school climate. I make a distinction between the environment and the climate of the classrooms and schools. The environment is constituted by the tangible objects and artifacts. It's the ease of access for the stu-

dents and it's the level of help and assistance when things are not working out. It's also the density of the space in the classroom. The climate, on the other hand, has to do with the interpersonal engagement and in the relationships. So, you can have a crappy looking place with joyful noise, which would point to that the quality of the learning helps overcome the bad environment. Or, in the other end of the spectrum, you can have beautiful looking design in super affluent surroundings with a level of apathy in the classroom happening, where students don't talk to each other and they appears as if they're alone together, completely disconnected and disengaged.

In general you may say that people create the standards that are directly related to the climate at their school. You hear it in the way they address matters: "In our school we acknowledge people, we say their names and we respect them as equals". When this is the case, that there is actually an equal level of care, respect and nurturing for each and every student it leads to not only happier and much more engaged students and personnel, but it also naturally increases the pro-social behavior. So, instead of a need for anti-bullying programs as a reaction to problematic behavior, you begin with shaping and nurturing the types of behavior that's attractive and much more valuable for everyone. In such a climate, when something undesirable happens, for example, someone is hurt by another, instead of punishment you find inquiry – and from such a space, real learning and growth can occur. The pillars on which a positive school climate can rest to unfold as a generative social field are: awareness, presence, groundedness, inclusion, compassion, empathy and rituals.

Appendix A2

Conversations on School Climate and Social Fields, part 1:
With Steve Arnold
CEO of George Lucas Foundation and Edutopia; Board, CASEL

In conversation with Dr. Mette Miriam Boell

Researchers/thought leaders

Steve Arnold, CEO of George Lucas Foundation and Edutopia; Board, CASEL (SA)

Diana Chapman-Walsh, retired President, Wellesley College; Board Member, MIT, Mind and Life Institute (DC-W)

Richard Davidson, Professor University of Wisconsin; Director, Center for Investigating Healthy Minds (RD)

Diane Friedlaender, Senior Researcher, SCOPE, Stanford School of Education (DF)

Mark Greenberg, Professor Penn State; Board, CASEL (MG)

C. Otto Scharmer, Presencing Institute and MIT (OS)

Kim Schonert-Reichl, Professor University of British Columbia; Director, HELP (Human Early Learning Partnership) (KS-R)

Daniel Siegel, Professor UCLA, Mindsight Institute (DS)

There are two operating units I work with at the George Lucas Foundation; one is called Edutopia which is the website that has more than 25 million "touches" with people a month, including web, social media, and referrals, "telling the stories of what works in education." It is hugely influential on mostly US education, but increasingly reachs a worldwide audience as well. And Lucas Education Research, which undertakes high quality gold standard university level research on best practices and curriculum development. The goal of these research projects is to build the evidence base to advocate for changing what happens in schools to be closer to how people actually learn best. Then I'm on the board of CASEL (the Collaborative for Academic, Social and Emotional Learning) which focuses on building the field of SEL and implementing SEL in school districts. I'm also on the board of the Teaching Channel which focuses on improving teacher practice through active professional development. Until recently I was on board of the Institute of Play, which has developed a systems thinking and design thinking curriculum for middle school and high school. I'm on the board of the New Mexico School for the Arts, which is a state wide charter in New Mexico that's trying to create a platform for the kids who have a passion and an aptitude for an arts discipline to get a high quality education and some pre-professional training. Then I chair the board of a local Seattle-based organization called Enlearn, which is developing a personalized adaptive learning platform that will analyze the learning behavior of large numbers of kids and then do predictive interventions, so that you can personalize and customize instruction. And I am chairman of the board of an organization called Healthy Minds Innovations, which is a 501c3p non-profit associated with Richie Davidson and The Center for Healthy Minds, an organization which is tasked with developing products and services based on the scientific discoveries coming out of the lab, trying to figure out how we can improve well-being and reduce suffering in the world, by actually developing products and services based on what we learn.

One of the huge challenges in discoveries, and particularly at university level is that people are mostly rewarded for doing research and writing a paper that gets published some

place, then they put in on the shelf and move on to the next thing. Our view is, that if we actually want to make the research make a difference we need to figure out how to translate the innovations and discoveries into services and products.

I'm actually not an expert at all on the validated instruments used in measuring school climate. I think the folks at CASEL will be able to help you with this I'm trying to help grow organizations the impact school climate but I'm not down at the program level. One thing I can say, though, that I think has been interesting, is an assessment that we used for some research at the Institute of Play's school, called Quest to Learn. We used the College Workforce Readiness Assessment which is a well validated measure of higher order thinking skills, problem solving skills and communication skills. I think it could be a proxy for at least the academic or intellectual achievements and school climate. Because the only way you can get the outcomes that you get in that kind of environment, is by having kids study collaboratively and work collaboratively. Aside from that I know that CASEL frequently refers to The School Climate Assessment, which is a standard measure widely used. CASEL has their Collaborating Districts Initiative, where they are working with 9 urban school districts in the US, to build a model for district level SEL with a particular focus on urban districts like Chicago and Cleveland etc. Because they're working in all these places to build a replicable model of district level social and emotional learning, they also have a teacher climate survey, which they use as a way to assess teachers' perceptions of the treatment of social-emotional learning issues in the district. Data hasn't been published yet, but it's definitely an interesting place to look and it's been used internally in CASEL to assess the level of commitment to SEL in the district, as well as the quality of the implementation. Aside from this, when you look at the program guide that CASEL's published you will find some of the programs have assessment tools or components to them, all of which will only be recommended if there is strong evidence-based data.

One other group that I've been spending some time with recently is the Character Lab, co-founded by Angela Duckworth, who is also a professor at University of Pennsylvania. She is quite well-known for her research on grit and resilience. They're doing some work on the assessment of resilience and gratitude and the kinds of emotional dimensions that they think you can assess which could be aggregated into some kind of equivalent of – if you were trying to come up with an assessment of school climate at an individual level and at a group level that was roughly equivalent to what the PISA does for academic performance – you would want to look at what Angela Duckworth is doing at her organization.

That's about what I know of people who are doing work in this area, I'm a couple of steps removed from the actuality of it so this is as much as I know about the instruments.

It's true what you say that the primary instrument used for assessing school climate is surveys. And it's going to be interesting when you talk to Richie about this, how the digitized, somewhat mechanical assessment doesn't really give away much information about the larger system or more holistic structure, because this is actually one of the huge problems in the entire field. There are so far simply not very many good ways to do this, and there are as far as I know no biological measures, although some people have started to think about "could you do something with a wearable assessment"? Could you build a kind of data collection model where everybody at the school would wear a device for a week that would track emotional states in some ways that are meaningful? There is no model that I'm aware of that's doing this.

Some people are now trying to correlate teacher surveys with student self reports with external views from parents and other constituents, to see if you could build an evidence based model that has multiple vectors as opposed to a single voice, and assume that it's accurate without bias. This is probably a Mark (Greenberg) question, because he is one of the most rigorous people that I know in statistical modeling. There is actually also a group on Penn State I met with recently who are doing analysis on existing data on school climate and social-emotional learning, they're finding datasets and they re-analyze them in order to see if they can find relationships between social-emotional health and school climate and economics, for example. Because they're doing sophisticated analytics on existing datasets, there might be some interesting findings that could be very useful to your project. I'm assuming this whole kind of assessment/analytic thing is about trying to find moments in time to measure progression, and one of the interesting challenges people are having in this domain is the contamination of desirability. So, if you have a trained observer who is observing occurrences in the classroom against a rubric multiple times a year, you would get a very different result than if you asked the kids about their emotional states and then gave them the same assessment 2 or 3 months later, and they've already seen the assessment before and they have some measure of trajectory so that there would be a whole different set of presuppositions involved in their answering the questions the second time as opposed to the first time. So, it's not clear how you solve for the contamination of prior inquiry when you try to get a clear assessment.

One of the tools that I looked at recently is a mobile mood device: everybody has a phone and rather than doing multiple questions and complex systems, what they did was that they designed an app that at random times throughout the day would pop up and ask two or three really simple questions that you had to reply to. The point is that it was multiple times a day in and out of school to try to measure how the kids moods changed over time relative to where they were and what was going on. The assumption was that if you had multiple "dipstick" measures over a long period of time that you would be

able to statistically solve for the individual anomaly and be able to project individual as well as collective mood – you could look at all the kids in a particular class, for example, or at a particular event. The idea is that that you wanted to be distant from any kind of meta-cognitive frame, all you had to do was to take that little momentary snapshot. I can't remember who is doing this app, but it would be interesting to see if that's something that has either been published or if it's a model that might be interesting for you to actually develop, because you could for example take the mood of teachers and kids and administrators in schools, all at the same time and then cross-reference. You could also look at the mood of the students and teachers, during a teacher's absence, for example. You could even include a peer- or other assessment component as well to validate the dataset. Using something like this would also be great for experimenting with interventions – there are a number of research publications lately that broadly evaluate social-psychological interventions. The shifts of mindsets, for example - something that is relatively short and yet shown to have a significantly longer term impact if you do the right thing at the right time. There are some studies, for example, that show that with single mindset interventions you can materially change a kid's trajectory over ten years. Even though the kid may not remember having had the intervention, you can with statistical significance, see the changes in the performance of the kids who were in the tests, versus the ones that weren't, in the same population.

What's interesting about that, is that if you have that sort of "dipstick" mobile assessment model, wearable or other, and have kids used to doing it on a regular basis, then you can actually drop in interventions either with a small or a large part of the population and see if it makes a difference. That's a rough equivalent in app design to "A-B testing," where you can say "what happens if I give all of the 9th graders this experience," what is their change, relative to the other kids. Or if I do this to the football team etc. and since you have a pretty good profile – I mean, you would not necessarily have 100% participation, but you would probably be able to persuade a group to be pretty thorough. Anyway, I don't mean to start to design interventions for you but I'm thinking that based on what people are beginning to look at there might be something you could mount if you could raise the money to start with an app and a data collection kind of a model.

CASEL's goal with the Collaborating District Initiative is to build a coherent model which can shift the field in terms of its assumptions about what would work, what could make a difference in a comprehensive way at the school district level, as opposed to the individual interventions in the individual classrooms or the individual teacher training. This is still a work in progress and nothing is published yet so Mark (Greenberg) and Roger (Weissberg) may be hesitant to discuss the results until there is a strong evidence base. The danger on the systems side of things is, that it can become overly abstract in its attempt to be a comprehensive model, because all of that theory won't matter a bit if a teacher doesn't know what to do or if there are different experiences at the micro unit level. Figuring out the relationship between these levels and the way that systems thinking can facilitate on-the-ground changes in human behavior is what I hear in your approach to things, and I think CASEL's trying to do it from the bottom up by starting with district level interventions to come up with a replicable model, which is a systems level approach and where the system that they're working with, is the school district. So they're not doing "all research" but taking the constraints of typical American urban school districts with all of the challenges of urban often economically disadvantaged school populations and saying "can we build a systems level model which is replicable across districts, that improves the school climate and student academic performance, reduces conduct disorders, increases teachers' satisfaction and kids emotional health?" That's broadly speaking what CASEL is trying to do, but again – from the bottom up instead of top down, they're aggregating a bunch of data and trying a bunch of things at a modest intervention level, at a theoretical level, at a district level or at a school level and then aggregating up that which works.

They will probably end up with a systems model that is well validated at the district level but they are not trying to assert anything more than that right now. And they will stay focused on that problem until they think they've found something that looks like a replicable model. So, you're probably right that they don't start out with a systems view but with a more of a boots on the ground view and then try to build up to it. This approach is intending to solve the problem of longer term self-sustaining processes in the schools or at the districts level where the tendency is that the effect and continuity of the implementation fades significantly over a relatively short period of time, because if you're only doing interventions at the program level then it is only as good as the repetition of a well-trained teacher next year or the year after that, so you can have dissipation. A lot of the SEL programs have found that this is treated at the teacher level as: "yet another thing that I have to do", so if they can get away with not doing it or if the district moves their focus on to something else, then they let it fall by the wayside. The idea of changing the culture at a district level is to have the district make a commitment to social and emotional learning, as an integrated part of what they offer instead of as a program they implement. The theory is that if you can anchor it at the district level at the values and vision level, and then build a sustainable implementation model, then that you'll get sustained change.

And aside from the Quest to Learn school that uses systems thinking and design thinking in their game based learning, I haven't seen anywhere where systems thinking is resulting in sustainable change, so I would be very interested in knowing more about this

if you know of anywhere what that's the case. If there are things you see and that you are impressed with that represent system level change or effective systems approaches to maintaining and sustaining healthy emotional cultures, I'd love to know about it. And I'd love to come to see some of the places that you consider exemplars of this that may be used as guidelines.

Leadership and consistency at the values level and the "what does success look like"-level, I think is crucial for any genuine transmission to the kids. If the adults in the system don't embody it the kids aren't going to buy it. This is broadly assumed to be true in almost all of the education reform work: everybody is persuaded that it's about capable teachers that are well trained, competent leadership with the right kind of values. Whether they are embodying the values from a social and emotional perspective, is a different question. A lot of school people at least in the US still don't believe that that's their job and they haven't been trained to do it. Adding that in as an expectation and even expecting them to be good at it intuitively I think is not a correct assumption. In some cases, people are trying to train teachers and in other cases expert teachers are brought in to train both teachers and students. And the expert trainers get the best results. But in every case I think it is broadly viewed that climate is shaped by the adults in the building, so if the adults don't have the right kind of training and the right kind of perspective then it's hard to move the needle. Therefore, we have training of the teachers – depending on the programs – because for example the rigorous model of project based learning involve changes to curriculum and changes to teachers practice as well. You bundle these two things together to make a description of project based learning, you can't just write the curriculum and not support teachers in changing the dynamics in the classroom and then expect to get a different result. All is of course depending on the age and level of complexity of the curriculum and the teacher training is adapted to that. Broadly speaking we are shifting the locus of learning from teacher-driven to student-driven and by that creating much more of a structure for kids to collaborate, much more interdependence among students and a kind of creative problem solving that's more case based than it is abstract. That translates into a whole different set of dynamics and a fundamentally different role for teachers.

Conversations on School Climate and Social Fields, part 1: With Diana Chapman-Walsh

retired President, Wellesley College; Board Member, MIT, Mind and Life Institute

In conversation with Dr. Mette Miriam Boell

The study that I'm most familiar with in this field is Trust in Schools by Tony Bryk. He is currently running the Carnegie Institute for the Advancement of Teaching here in Palo Alto and he would be a good person to talk to at some point. His trust study was in the Chicago school system some years ago They measured trust, which is certainly an aspect of generative social fields. They put considerable effort into the measurement of their construct of trust, specifically "relational trust," and the study has been influential. It would probably be a good idea to connect with him at some point and see where the field has moved since he did that book. As now a funder of research on k-12 school issues, he has no doubt been pursuing people who are doing work that relates to what he did. Also, of possible interest to Peter, Tony Bryk spent time at IHI in the early years of his presidency and has completely reframed Carnegie's work around IHI's vision of "improvement science," bringing that concept to the K-12 system.

Aside from the relational trust, there was a large collaboration convened by the Mind and Life Institute that met for two years to bring contemplative practices and social-emotional learning together. This was the program called A Call to Care and MLI is, when last I heard, spinning it off to a nonprofit that is being developed by Brooke Lavelle Heineberg (who is here in SF) and John Makransky at Boston College. In particular there were four social scientists in that collaboration who are doing related work and who were developing methodological underpinnings. I can supply their names if you want to pursue any of them at any point.

Also quite involved in A Call to Care was a group around Smith College where the materials were being pilot-tested in summer training programs. Sam Intrator who has worked closely with Parker Palmer and The Center for Courage and Renewal would be a contact on that and he can probably point you to other interesting initiatives. He is a faculty member of Smith School of Education and he runs the laboratory school there where students go and work with young children and study learning. As you know, Pamela Seigle also has ties to Parker Palmer's work and could be another resource there. And on

the MLI board, Richie Davidson at Madison is doing school-based interventions and Dan Goleman has deep connections in the world of SEL which his book Emotional Intelligence helped to launch. These are all people Peter knows about.

I'm assuming that the criteria of success for the 1440 Foundation with this project is to begin to see a way forward integrating the systems perspective into the social-emotional and mindfulness education, which they're working with already. And perhaps also to come to a deeper understating of how school climate ad generative social fields overlap and may be studied and intervened with in a little more intuitive and direct manner than is the case today.

I know you are close to Peter Senge and Otto Scharmer, but it does strike me that there are useful tools for your project on Otto's U-Lab MOOC. The matrix which they use there could be very helpful for setting up prototypes as a next step of your investigations. In essence, what they have is a tool to move such a project along in a way where it becomes apparent, in a sense it's classical Peter/Otto work: Across the top they have Personal, community, organization and system and then along the left hand side it's from no idea to idea is the first level, second level is from idea to prototype, third level is from prototype to bringing to scale. Now, imagine that you're doing that with kids in schools – it's a combination, a journey from self-awareness to awareness of other and the larger system in which you're operating.

Wouldn't it be interesting if the measures – instead of being standardized as survey questions and reports – were literal outcomes? In the U-lab, when people report back on their projects to the large group of people who have participated, they demonstrate where the projects are in this matrix while at the same time reflecting on their personal growth and development throughout the journey as well. Basically, they're filling out the matrix with examples of prototypes and projects and you can easily imagine the same thing happening in a school or schools and even in individual classrooms. You might do something like the U-lab, which wouldn't have to be online but which could unfold in real time with kids in a classroom and the point would be that they would identify something they felt should change and the teacher would support them in collecting information and in their journeys of exploration of their own choice of topic of interest. Even if it was just a sort of mapping progress along a journey and the journey is from what Otto Scharmer terms "ego-system to eco-system" awareness, which for the kids would translate into a personal process from an "it's all about me" focus to a genuine relatedness to the larger system.

And then in addition a mapping from that focus on self to a focus outwards onto "some way I want to make this system better". It is a bit like you see in the wonderful Borton boys video, where the 3 little kids work on their differences on the playground. If those were the measures, if you're mapping something that's happening where individuals are being transformed and in that transformation they are bringing their new awareness into the environment that they're inhabiting while quickly taking small steps: trying something out, coming back and reflecting on it and adjusting the next steps. I'm thinking that this would be a different way of measuring things, instead of stepping back and asking the research people "how do you measure trust." This applied approach might lead us to think about how to take a simplified version of the U-lab model, distil it down and make that the measurement instrument – which it is, in action research terminology – only now it's action research in the middle school where you spend 7 weeks with a group of kids and they're identifying what's important and what the problems are and how they can envision addressing them.

It's a letting go and accepting that the kids know their system, that they know where the sticking points are, and we don't. We won't be able to capture them and measure them at the exact moment when the important things happen to happen, but this is a sort of capacity building that is ongoing and the measurement or the proof of the pudding is in the transformation that they can describe and see. It's of course a very different way of thinking about research, but I think it would actually capture the beauty of what Peter and Otto are all about.

In this perspective, the challenge is that instead of going out and looking for experts to do the measurements you try to turn the question around and say, "We have a process of unfolding, a process of becoming, and while it is hard to pin down, we do know that process because we have seen and felt it over and over". Our measurements need to be embedded in that process and at the same time to be a feedback system to that process, as well as a mapping of that process. As such, it becomes a process of the system revealing itself – what would that look like through the eyes of the students? We're assuming they can be very candid and good observers and sometimes even more so than the often more conflicted distracted adults with the theories to which they cling.

Rethinking how we can do research around these processes is a deeper problem than just finding measures. And if we accept that the school climate is the feeling of the culture in the moment it becomes very difficult to hand out surveys once or twice a year and expect them to capture any underlying current. Of course there are ways to collect data more regularly than through occasional surveys. On that, you might want to connect with Wendy Hasencamp at the Mind and Life Institute, who is doing experience sampling on desire and craving via an app that they've developed, which contacts you – pings you – randomly 3 or 4 times a day and you answer a few questions about what you want, how

it feels and so on. That would be a different way of measuring school climate that would take into account the feeling in the moment, much more closely. You should connect with Wendy around this, they have the initial data collected already and are picking up some interesting initial trends.

I've seen a lot over the years and I think what Otto has is one of the richest things I seen so far, it's rich in process and potential – so, I wouldn't wander very far looking for ways to assess school climate and generative social fields. The issue is really if we can take that which Otto is developing, which is so powerful, can we think about that, simplify it and distil it down to become something that is happening in schools? Otto has got it working in communities where people are generating lessons. One of the central lessons is: use existing networks, go where the energy is, build on what is already alive in the system, with people who really want to foster constructive change for the good of the whole.

And be prepared to let go, if you think you know the answer then forget about it because the answer lies in the collective. Instead of working from preconceived answers, just convene a robust conversation capable of revealing what people in these local communities care about and then find ways to address these issues by prototyping. You role would then be to keep people connected and to pay attention to the quality of these connections always caring for the container – I think that would be exciting to the 1440 and it also matches what Peter and Otto were looking for in ACEL and didn't quite get. The laboratories are beginning to take shape in many different places and the more it's consistently focused on this journey; this vision of a journey, the stages of a journey that involves going inward and then coming outward, the process of being personally transformed and then connected to a wider vision and a larger network somehow that's what's need to be captured.

An additional beauty of this perspective is, that in the process of engaging kids in the schools in their own personal journeys of becoming aware they will need to be able to use the tools of both systems thinking and emotional and social cultivation. It's an integration that will help kids to become aware of the climate that they're creating at any given time. So, with the simple tools that they can be using and practicing while at the same time actively creating their school climate could become an excellent assessment of generative social fields.

Conversations on School Climate and Social Fields, part 1: With Professor Richard Davidson

Professor; Director, Center for Healthy Minds, University of Wisconsin–Madison

In conversation with Dr. Mette Miriam Boell

The climate of schools is something that can be sensed by a careful observer, yet it's a challenge to assess these climates in a more scholarly way with scientific objectives or purposes. We encounter this challenge across many different research areas where the more subtle aspects of human experience are the target of study. We consider school climates to be the aggregate of interpersonal activity in an organizational setting - in this case, the school, but how to effectively harness that for measurement purposes is a challenge.

When alluding to our work on emotional styles, including resilience, outlook, social intuition, self-awareness, sensitivity to context, and attention, we can at least say that any aggregate group of individuals comprises people who vary in their emotional styles. And I think we should embrace differences in emotional styles. It would not be particularly helpful to have a large group of people all with the same emotional styles because then the opportunities for emotional diversity would not be present.

Organizations tend to benefit from such diversity. However, it's surely possible that emotional styles of individuals can be assessed, but I'm not sure that would be particularly helpful in making inferences about the climate, since climate is an emergent property of a group. Even if you knew everyone's emotional style, for all the individuals that constituted the group, I'm not convinced that at this point in time we would be able to say much that's meaningful about the aggregate. So, as I started out saying: it is a challenge. I'm not sure what the best approach is other than having independent observers rating the climate and looking for consistency across observers. When we assess kids, we take aggregate scores across observers: We'll have the teachers report on the child, the parents report on the child and the child reporting on her- or himself, and we will often take an aggregate across those different observers.

Our approach to cultivating a nurturing climate is using secular versions of contemplative practices to cultivate warm-heartedness, mindfulness, and kindness. In terms of

how this may relate to the kinds of questions that you have, I think what we can say is that in the schools that we've worked in, which is primarily public schools and mostly in low income districts, we've found that as a critical mass of teachers and staff begin to take on these practices, that these are trainable skills. Then there really can be a dramatic change in climate. One school we worked with is an elementary school that had the highest suspension rate of all the schools in Madison, and now in the last two years there has been zero suspensions - so the change is dramatic. In part, this has to do with this critical mass of staff personnel who are engaged in these practices and who are showing up in a different way. This is certainly something that has impacted our formal sense of climate. But again, we really don't have any great measures of climate. We have lots of measures of specific classroom climate but not the overall school climate.

Depending on the age of kids, they will have more or less meta-awareness that will enable them to actively reflect on the climate. Still, they will certainly contribute to it. But my sense is it's difficult to actively engage them in reflecting on climate, as they contribute to the climate in more implicit than explicit ways. Staff members, on the other hand, are in a position to have the kind of meta-awareness that will enable them to reflect on climate in the more explicit way. But overall, I'd avoid using the term "kid" or "child" without being much more sensitive to developmental stage. I'm not even certain that it would even be helpful to have them explicitly reflecting on the climate per se, as opposed to simply cultivating characteristics and virtues that will contribute to a positive climate.

Now, I'm certainly open to attending to this innate systemic awareness in kids that you and Peter are talking about, which I agree we tend to underestimate. Bringing this more into explicit awareness by engaging the kids actively in the processes around cultivation and assessment of the school climate could be highly relevant. If you can really use such systems tools in the ways that you describe, I would certainly strongly advocate for the utility of trying, I'm just not aware of any systematic approach to any careful types of assessments using those kinds of strategies. This idea of relying on other types of communication than verbal with the younger kids seems like a very sound strategy for tapping into an innate level of awareness, which they do not have words to express yet. It would absolutely be worth trying to investigate that. Now, if such a strategy for teachers exists, that in itself could be a powerful strategy of research.

We don't really work with measures of school climate but instead we work with the classroom climate. We use a standard classroom observation method called CLASS, which was developed by Bob Pianta at University of Virginia, School of Education. There are trained coders who actually go into the classrooms and do the observations; of course this is much more costly than handing out a survey, but we find this provides us with

entirely different data we feel hold much more value. We haven't worked with teachers as coders for the obvious reason that there is an inherent bias if they are coding their own classrooms. The idea of having teachers coding each other's classroom is great, but it immediately raises the question of time constraints that in public schools, in our experience, is a very real issue. I do see, however, that from the perspective of a sound change strategy as to shift the culture (or the field as you talk about) of the entire school, the involvement of the teachers at this level can become very valuable. In particular when you talk about it in the way you do, where the idea is for the people who are involved in the school climate – the ones who are actually producing it – become more aware and take ownership of the way in which they engage to generate the social field of the school.

The idea of stabilizing the social field of a school to a degree that when new kids come to the school they are immediately embraced by a nurturing, generative culture is great, and I'm not entirely sure how one would do that. However, the schools that we've worked in where we have noticed anecdotally a dramatic shift in school climate, the staff have been involved in group practices together to cultivate well-being, warm-heartedness and mindfulness, which I think has been extraordinarily helpful and important. But from a research perspective, it doesn't make much sense to us to have the teachers involved in the classroom assessments because, as stated previously, from a hard science research perspective they are going to be biased in their assessments. Therefore, it is – in my view – simply not a good use of time for the teachers to do that. So in this sense the useful change strategy involving teachers has a different purpose than the useful data gathering for research. That said, I think the group practices where staff come together to cultivate well-being is really helpful in generating the social fields that you are talking about. And this has been enormously important for changing the climate of the schools.

Teachers and kids are not brought together from these practices though, but we do have same-time training going on in the individual classrooms where the teachers are implementing a curriculum focused on this for the kids. But this is aside from what I'm referring to which is the opportunity for the teachers and staff to practice the cultivation together, without the kids. This allows them to basically cultivate the practices themselves so that they can get an interior feeling for what benefits stem from these practices so that when they bring them to the classrooms, it's informed by an interior sensibility and not simply imposed in a mechanical way.

Before we bring these practices to the kids, we have the teachers go through a 10-week training program so that they can communicate the content from an authentic place where they serve as true role models of the processes. Teachers go through a 2-hour training once a week with daily practice so they have a real sense of what this is before we bring it to the kids.

So, with your focus of integrating best practices of research into the change settings in schools and educational networks, we are definitely interested in participating in next steps. We have a group of people at the Center for Healthy Minds who are really our change agents and they have the extraordinary combination of a deep personal contemplative practice and real classroom experience as well. In whichever way we can integrate some of their work and our research into your next-steps prototypes would be very interesting for us.

Conversations on School Climate and Social Fields, part 1: Dr. Diane Friedlaender

Senior Researcher, SCOPE Stanford Ed School

In conversation with Dr. Mette Miriam Boell

School climate is always a component of any research I do in schools. It's always an element; a background context that I assess on a much more intuitive level. School climate has to do with the feel of a place. Since my background is in anthropology I have a much more ethnographical approach, which means that rather than coming from a specific frame of mind, I go in and notice what I actually see. Therefore what I say about school climate is basically based on what I go out and sense when I study schools.

There are some components that are always involved with studying school climate. Teacher culture and how collaborative teachers are with each other is an essential component. This is not just formal ways of collaboration but much more importantly the informal ways in which teachers make time even though they're under pressure, as is always the case in American schools. Such collaborations, which are a huge element of school climate, lead to an environment where teachers feel safe to share their work with one another. They share not only what they're successful with but also what they're struggling with.

Another major component of school climate is "how kids are" e.g. at free time. It's an essential way to look at what the culture of the school is: is it an inclusive place? Is it a competitive space? Is it a segregated place? And along with this comes school discipline policies – is it a restorative justice place or a punitive place? Are certain groups continually targeted, like for instance in the United States when there are African American kids in a school, you'll often see a row of African American boys in the office. That is a very common practice here – they're being taken out of class because their behavior isn't seen as acceptable.

Another component I also focus on is the decision making processes at the school: who gets to decide and what kinds of decision are being made. How involved are the teachers in the overall decisions? What degree of top down decisions is the organization allowing?

A fourth component is the nature of parent engagement in the school. Put a bit roughly, this breaks down to which parents are involved and in which ways? Are they engaged,

and inclusive? Are they engaged mainly in fundraising types of activities or are they engaged also in curriculum development.

For example, my daughter's public elementary school has a very strong emphasis on parent involvement. The pedagogical focus of the school is on teaching the whole child but rather than relying on teachers' having a broad range of expertise parents supplement children's holistic education by bringing their skills into the classroom, through programs in art, dance, yoga, gardening etc. Parents become directly involved with curriculum and actual teaching. The kids get to meet different adults, which creates a very different learning environment. For instance, another parent and I took an off-the shelf character education curriculum and revised it to have a focus on mindfulness. We come into the classroom to teach once a month and we trained other parents so we could reach every student in every classroom. Engaging parents in this way is rare in most schools. Engaging parents in this way can dramatically improves the school climate in general. It also means that the children have the opportunity to form bonds with more than one adult. The kids love it, they are so excited when we come and they really participate in the different activities we engage in. For a child who for whatever reason has a hard time connecting with his or her teachers has the opportunity to successfully build relationship to other adult persons. This is something that can actually be measured as a school climate component: you can ask students how many adults do you have relationships with? How many role models are there in your life?

The schools that have really thought through what kind of an environment they want to have, the ones that really practice that, are much more successful with achieving a healthy school climate as well. That way it really relates to systems thinking and may serve as the bridge builder between systems thinking and social-emotional learning. It's not just about certain structures, it's much more about values and policies and most importantly about a core belief that children are fundamentally good and that they want to thrive and grow in a supportive environment, as opposed to a punitive environment. But the environments where there is an explicit celebration of student's success and where this is used to breed more success and more engagement, in particular for kids who are not traditionally successful in schools, seem to be more successful to me.

In my research I tend to do case studies and I tell stories, much like you can tell I'm doing now. I tell about the things I see. But when you try to do more large scale research, surveys are the best – yet wholly inadequate – tool that we have. But really, everything is a proxy – you can look at all kinds of data: discipline data and so on, but it all has to be put in a context of what is the community in which the kids live, what are other factors involved – always try to triangulate the data you have, to get as full a picture as possible.

Conversations on School Climate and Social Fields, part 1: With Dr. Mark Greenberg
Professor; Penn State University

In conversation with Dr. Mette Miriam Boell

There are a few larger organizations working in the area of School Climate in the US. One is the National School Climate Council and another is the American Institutes for Research (AIR), which has been funded by the US Dept of Education. Both centers have tool kits for development and assessment of school climate. The primary instruments used are different types of surveys, for youth, parents, staff, and teachers. Although, I'm not directly involved in research of school climate as such; I've been involved in studies doing research and interventions in schools where we've been asking teachers and other staff at schools regarding Social Emotional Learning programs.

One study is the i3 study being done jointly by Penn State, CASEL, and Air where we have 14 schools following a standard SEL-program and 14 schools where they're going through a school wide approach to SEL with a school wide SEL team over 2 years. To assess the effects of the school-wide team one method is to use staff questionnaires that are used as a structure for the staff to reflect on the processes of implementation. So we're measuring the staff's perception of the quality of the school around the use of social-emotional curriculum, policies, etc.

Much of the school climate research stems from an understanding of SEL and as such it overlaps with my work, in particular with the development of curriculum. We once did a study, where we had the staff report on their school's climate before and after we introduced the PATHS Curriculum, an SEL elementary-school focus. The teachers completed the school climate assessment anonymously, which is crucial in survey-based assessment because the reports become much more precise when people know that no one will know who reports what. Also, the teachers did not report on themselves but on their perception of the classroom and the effects of the program with regards to the students – that helps ensure precision as well. We found that teachers' perceptions of school climate were important in predicting how well teachers implemented the SEL curriculum.

There have been some attempts to use observational methods to assess school climate as well. The problem is, however, that it's unlikely that you see very much, unless you observe for days and days which would make observation-based methods much more expensive than the survey-based ones, and they may not be more reliable. Another method is to use youth reports, which is widespread in the US in large districts. There are a number of districts where you can go online and read about youth reports of school climate for each school in the district. These also can be based on teachers' or parents' reports and when it's middle- or high schools, but it's usually based on youth reports. This fosters transparency and in the best of situations can help create a community dialogue about the schools and how to improve climate if it's not attractive to parents and kids.

When talking about social fields or generative social fields, the metaphor of the "magical classroom" needs to be understood not only as "stuff going on in the classroom" – which doesn't necessarily say much about the school climate as such – but as the overarching sense of how the school "feels". The challenge here is, that outsiders may not have a very precise feeling of a school very quickly. Some schools can look and feel much better or worse than they really are. It's not just about the number of artifacts that you can see, but also about the quality of the relationships, the orientation towards innovation, the sense that the staff in the school feels responsible and other such factors. This is where the trust in schools, the level of trust between teachers, their communication with parents and other such factors are critical and as Schneider and Bryk showed in Chicago, this sense of trust and communication at the school level can influence academic achievement when all the traditional factors are already in the equation (% of free- and reduced lunch; parent engagement etc.).

Mostly, what people's description of "how the school feels" will summarize is the quality of social relations, that is, if they're not just relying on visual data and perception and studying the artifacts and the physical structures. The assessment of social relations is based on observations of how people interact with each other: how they engage in conversation, how they approach you and so on. You may say that the social field as well as the school climate to a very large extent is dependent on the quality of the social relations because it begins there. The fact that it is social relationships that are so crucial holds the key to understanding how the climate of a school can be radically changed over a pretty short amount of time because of effective leadership. This works in both directions: you may have an incredible school climate and social field and then the principal changes and this alters the climate dramatically and vice versa. I've actually witnessed this change to a radically more positive climate within a year of a new leadership of the organization. Two important issues in principal leadership is the ability to both create individual supportive relationships with teachers as well as to create coherence and have teacher input into decision-making for school-wide concerns (such as discipline, parent activities, etc).

Aside from the primary importance of leadership in building a positive school climate and nurturing generative social fields, it takes strong role model teachers and a curriculum design and pedagogical principles and practices which supports this as well. Take the example of a high school with a focus on project-based learning where the teacher becomes more of a collaborator than your average traditional more-of-a-lecturer type of high school teacher. This requires a curriculum model that can support such a classroom, and not just the strong character of the teachers.

Whether or not this climate focus per se can become neuro-restorative, is only speculative at this point. If we are speaking about integrating contemplative ideas in education, we can say that it might be good for school climate, as SEL and many other approaches might be. But it is critical to notice that many schools do not have contemplative breathing or mindfulness practices and yet create kind and supportive atmospheres that helps people to be kinder or feel good about their schools. In fact, many other practices, such as different types of SEL approaches that are not necessarily based on mindfulness, may be just as effective in generating a positive school climate. What it really comes down to is the how caring and present people are in interactions with each other and there may be a lot of ways in which people can get there. For instance, teacher's listening skills are a crucial and often neglected factor. For teachers in particular, teachers tend to see themselves more as managers of the classroom – in our program teacher PD program (CARE: Cultivating Awareness and Resilience in Education) the listening component is an important factor, as is the case in several of the mindfulness in schools programs. How this directly influences the school climate, I can't say – it would require a whole school where all the staff wanted to do this – or some 'critical mass'. And honestly, I don't know anywhere in the world, when not including religious schools, where the whole school and all the staff have really taken this climate focus seriously using a mindfulness model across the entire school. So, at this time we really can't say what the whole-school impact would be. To summarize: whichever of these approaches you chose to put your effort into, if you do it with a certain level of awareness and leadership participation then it can be helpful for the school climate. And to change school climate does not just mean to change the behavior of the teachers or of the kids, it also – and perhaps primarily - means to change the behavior of the leaders.

Conversations on School Climate and Social Fields, part 1:

With Otto Scharmer

Presencing Institute and MIT

In conversation with Dr. Mette Miriam Boell

First of all: I don't know anything about the instruments being used to measure school climate but it really sounds interesting. My question is: how central to your project is the assessment of existing methods and the development of new instruments or tools – is that a main focus? Are we trying to initiate something that will be explored in different sites? What are the intended outcomes of your work on school climate? What are we contributing towards?

I'm interested in all this as I don't have any real experience in working with school systems myself. I'm an innovator in education myself, but my only hands-on experience with working with the educational systems stems from Austria, where I helped the Minister of education with a system-wide transformation of part of the national school system there.

What I took from that is the insight that there are 3 or perhaps 4 leverage points to change the school system:

1) the individual which is always the starting point;

2) the relationship between learner and educator, in which the latter is often the teacher but not necessarily – and a good proxy for this is what happens in the classroom, where the core access is the quality of communication that you want to shift because of the common problem of downloading

3) the learning school – school as a learning organization. This is about organizational leadership and basically anything else that allows more autonomy. For example: can you (e.g., a teacher) set up your own schedule? How much freedom do you have in making decisions and so on. This of course relates very much to point two, because if teachers are enslaved by the curriculum or teaching for testing, this is the recipe for level 1.0 communication with students (see next paragraph). So in order to allow deeper shifts in that relational field you need to basically increase degrees of freedom as a system design. That is very evident if you consider the school as a learning organization, which requires the combination of higher degrees of autonomy and good leadership.

4) This is the level of the whole system, the coordination mechanisms where the ministry comes in, where not only the schools and the principals are included but also the other stakeholders, including parents and community. This level concerns governance of that entire system. And again, we know what the common problem is: it's much too often a ministry-led public system, not really based on any real interactions across levels, let alone collective intelligence.

Now, what I just describe above are the four columns of the Matrix of Social Evolution (individual, relational, organization, larger system), and what's missing in the assessments is the vertical dimension. It's not only true that people usually miss looking at all four columns (or system levels). What's even more missing is the vertical dimension (of the matrix), which in the framework of Theory U is the four levels of consciousness that go from downloading (awareness level 1.0) to more transactional relationships (level 2.0), to emerging relationships where the self-other boundaries begins to dissolve and the type of organizing becomes network oriented (level 3.0), towards the co-creating and connecting with "what is wanting to emerge"(level 4.0). These four levels are the deeper sources of the social field.

In my view, this could be a blueprint for an assessment tool where the first step is to focus on the individual, and there we have taken a first step recently in U.Lab[1] with a listening-assessment tool. We've noticed that if you practice that and really focus on that, it makes a huge difference and it is actually possible to improve your listening skills and competence much faster than we thought it would be, when you have a daily practice to review this capacity with a small group of peers. What we learned from the U-Lab is that in developing such skills, which could seem like massive and resource-demanding process, what is really required is a smart way of doing things. It actually requires engagement much more than it requires resources, as well as an enabling infrastructure. Of course, what's really interesting in this regard with these new online learning environments is that they're self-organized and as such much less expensive while at the same time more scalable than the old structures. This is what we know so far, but what we haven't done yet is functional equivalents at the relational level, which I see as very doable.

But, I'm rather frustrated that we haven't yet developed the markers for this relational level, the right kind of indicators that allow you to track a deepening in the quality of conversation which is quite clear to us: when conversation move from polite to debate, from debate to dialogue and further on to co-creativity. We simply haven't really devel-

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1 MITx course, "U.Lab: Transforming Business, Society, and Self"– see www.presencing.com or www.edx.org/course/transforming-business-society-self-u-lab-mitx-15-671x

oped the assessment tools around this process. We can say, though, that if such a tool existed, it would in itself be an intervention because it would develop awareness and consciousness around these deeper levels of conversation and would therefore reveal the lack thereof in traditional school environments. And, really what we're moving towards is instead of bringing experts in to give you this score or that, it's more a process of self-assessment which requires dialogue at the level of the school around what we need to pay attention to and how.

If we imagine this unfolding at the classroom level, it would be very hard to do without kids – they would be drivers of their processes themselves. The whole point of bringing in these different perspectives is a profound interest in kids and teachers assessing their relationships with each other as well as with their peers – we can call this a general assessment of the relational space. Then first thing we would need to do is to create a common language for awareness of different ways of connecting with each other. The very insufficient way of doing this we've developed so far is for everyone to assess at the end of the day how much time they've spent at each of these four levels of awareness – at which levels of quality their interactions have taken place. For example, they might discover that for a number of days they have had zero interactions at level 4.0 a self-awareness enhancing intervention.

This is an example of a minimum requirement. Of course, there are technical questions of minimum numbers of participants for sufficient data and so on, but in reality all learning is self-generated and all real assessment of such skills is assessments that happens in the context of community. My assumption is that kids are generally interested in this relational space and this would be a tool that would allow them to lean deeper into their own relational space. But in order to do that, you probably need to give them their own practice field, something like a kid's version of a "case clinic" or something or some similar process, where you can go through a relational shift and then, in the end, have something maybe even as simple as 2 or 3 questions that you share perspectives and experiences around. That would develop this literacy regarding the relational field. So, in the end, what we're really talking about is self-development around these entities that engage with each other and the main thing is really to ask these questions and to engage in this dialogue together. That will build the awareness and the literacy to also bring this skill to other places: the classroom and beyond. I do think the kid-to-kid space is absolutely key here because they will probably engage with each other more easily and in a more open way than they will with the entire class at once.

The column 3 is really organizational leadership that relates to the level of principal and it could come with indicators that concern this level of the system, involving the differ-

ent stakeholders and focusing on how much silo'ing or centralization where everyone is just doing whatever they do, disconnected, without much awareness of other parts of the system. Often we have siloed teachers where everyone just goes off on their own and does things, as they now do them without bothering each other. But what you want from a learning intervention is a process of opening up, which is difficult because for a number of reasons no one likes for others to step into their territory and begin a joint exploration of what is perceived of as this private space.

But at a practical level, you can think in terms of tools that could be done is a kind of an archive where you develop video-based examples of types of interactions at the different levels, as a capacity building tool, with a demonstration of what is meant and how you can apply that to your own situation. That could be a sophisticated tool development that gives real examples. And it could probably work as a scaling up strategy allowing people to interact with each other around issues they perhaps weren't even considering before. Practically speaking, this would need to also reach out in the form of learning journeys to enhance the openness and collaboration around teaching methods – it would become learning-oriented.

If you set up a prototype to begin to explore these ideas it would be very important to also include the 4th dimension which is the coordination mechanism, which really is the larger system where learning really needs to take place and where learning also needs to aim at. We can perhaps imagine an intervention matrix that looks at all these different levels, from the individual to the whole system, together and what the specific profile is and where the developments therefore really need to happen. This would be the focus of the systems view rather that just one of these slices that people are usually working on. I think this could be a real contribution of a holistic assessment tool.

At the end of the day, exploring alternative coordination mechanisms is about the government or whoever holds the control now, to find ways to give it away. This is of course why it is not happening, but this is actually where the leverage is: to open up degrees of freedom – you need to give control away to something, to an ecosystem of self governance, to the orderly distribution of power and authority (as Bill O'Brien used to say) or systematic and creative even. If this isn't integrated, assessments are just used as a tool for some superior structure. But in the perspective of the 4th system level, where the shifts of the field happen, everyone needs to be included. This could be your prototype – taking it from the level of the school to the whole system and how that comes into play and synergy.

Conversations on School Climate and Social Fields, part 1:

With Professor Kim Schonert-Reichl

Professor University of British Columbia; Director, HELP (Human Early Learning Partnership)

In conversation with Dr. Mette Miriam Boell

Before we start this conversation I would like to mention to you a former student of mine, Dr. Ty Binfet, who is a professor at UBC, Okanagan. He has just published a paper (in which Dr. Anne Gadermann and I are co-authors) on measuring kindness in schools using the research on school climate, but making the case that a lot of the research on school climate is looking at the more mechanical things and doesn't really look at the kindness element in school. So, he developed a measure of students' perceptions of kindness in their school and in that process he did a whole review of the school climate research. He has implemented this work into his work as a teacher educator and for example in what he calls "The Cheerleader Project" where teachers are taught how to interview their students in order to find out how they can become as supportive as possible for them and the classroom. I think you will find great overlap between the understanding of school climate and the larger social fields, when approaching it from this relational perspective.

To further come to understand the deeper issues of school climate, I really recommend that you read Tony Bryk's book on relational trust and look into the processes they have had in Chicago in collaboration between University of Chicago and the Chicago school districts, where they now have a measure of what they term "The 5 Essentials" that are necessary for growing relational trust. Every public school in Chicago measures these and it gets at some of the things, such as parents' trust in teachers, teachers trust in administrators and students and so on, pointing to the context in which trust can unfold. This work has been quite powerful and has had a lot of uptake.

This focus on the relational aspects of schools, and the assumption that many people have about school climate seem to me a bit passive and not so intentional. I'm thinking the first elements I would look in to, if I was in charge of the school climate somewhere, would be the things that I can actively and intentionally do to create a more positive climate. My former Professor from the University of Chicago – Phil Jackson wrote a book in the 1960s entitled "Life in Classrooms" in which he coined a phrase "The Hidden Curric-

ulum" and I find that's a really important concept when you want to understand climate more broadly and not just as something that develops out of the relations. In the hidden curriculum are the messages that are conveyed about the relational environment, the physical environment, the appreciation of the kids in a school, how welcome are the parents and so on: what are the posters on the wall? Where is the secretary seated relative to the outside visitors and the principal's office? Which messages greet you when you enter the school? What do you see? And also in the classroom – what books are given emphasis, how nuanced is the coverage of the different topics etc. All of this feeds into this notion of the "hidden curriculum." It's not explicit and it's rarely intentional and yet it's so much of what the children are learning, because they see what the adults are giving emphasis to. Unless you try to surface this hidden curriculum, you're never going to move towards a positive climate.

Another theme that I've been quite inspired by is the work of David Hansen at Teachers' College, Columbia University. David has discussed the hidden curriculum in the context of the "First five minutes in the classroom," where the point is, that the entire relational climate is established within the first five minutes of class. This work is described in a 1993 book he co-authored with Phil Jackson and Robert Boostrom titled "The Moral Life of Schools." He looks at what the teachers do, during that crucial period of time: is he greeting the children? Are the parents welcome? What is his tone of voice and so on – it's a fascinating book where all this is included as well as a chapter on the search of "Looking for the moral" climate of the school. It's really a qualitative type of observational assessment of school climate. And again, this falls under the notion of the hidden curriculum and you will always miss the mark of developing school climate, without taking these unintended markers into consideration and make them visible.

One example is of a school I know, where the principal had help designing the school so it would be welcoming and inviting to both parents and students. There was a big space for gathering where everyone met every morning and sang, there were benches and chairs and stacks of books in the hallways and everything was very intentionally built and designed, to focus on creating a great space for people. And what is well known to many is, that often the most toxic space in the school is in the staffroom where there are in-groups and out-groups created and a lot of bullying going on. So, this principal created a structure by which everybody eventually learned to get along by being cognizant of simple but powerful rules by making lunch trips out of the school available over the PA system, so that everyone could freely join in if they wanted to – a culture was created around intentional inclusivity. Another of these examples is that children would make the announcements over the PA, from the perspective that students are at the center of this school. If parents or teachers were talking while the announcement were being

made, they would be invited (very intentionally) into belonging to this community and pay the respect to the children they deserve.

Based on all this, I like to split the understanding of school climate into two different things: "the physical environment" – what is on the walls, where do you see the tables in the classroom and what's on them and so on, and then really look at what these messages convey – what are the symbols and our values. That will lead us to thinking about what is important and what we value in a specific space. One of the master teachers I know had only plants in front of the class and no table, but just tables all around. He also had a goldfish bowl with popsicle sticks with all the students' names on them, so as to ensure that everyone was called on in equal amounts. So again, it's an understanding of our physical environment and the social field and how it is represented in an explicit, tangible way.

Aside from the physical environment there is "the human environment" and to me this notion of social fields intersects those two, because you have to take into account the space in which this human, relational environment unfolds. And this is very much about how the staff and the leaders relate, how do they solve disputes? How are kid's troubles solved?

I think maybe the school climate in the past has been more focused on decreasing the negative aspects rather that promoting the positive. It is traditionally more a focus on preventing bullying and such things than it is the promotion of kindness and compassion. But I sense that this is shifting now, at least to me there is really a need for a new look at school climate from that perspective. Actually, I think Nel Noddings has really nailed it with her challenge to care in schools – where a focus on authentic dialogues between teachers and students, and other factors of promoting kindness in the classroom. That is where we need to focus now.

Conversations on School Climate and Social Fields, part 1: With Dr. Daniel Siegel
Professor UCLA, Mindsight Institute

In conversation with Dr. Mette Miriam Boell

I think the word "culture" is an interesting word to add into the word climate, when talking about school climate: the climate might be the feeling of the culture in the moment and perhaps the culture is a word that could be used for the patterns of relatedness and meaning that unfold over – I'm so nervous about using the word time because there are some physicists that claim time doesn't exists - so let's call it over change, patterns that occur over change. So, climate would be a slice of culture in a given moment and we have many moments. You can feel the climate of the classroom or the school literally in your body, and just as climate changes in a geographical space, then geographical space is a way of defining the setting for the culture and the way it manifests itself.

If a human being is considered a node in a system then the system is comprised of the nodes and their interconnections and interactions with each other and for human systems at least you may also add that the system is comprised of the patterns and exchange of energy and information. When you look at things at this level then you may say that the way that an individual node of the system tries to articulate what it's like to be in that system at that moment – what we were saying would be the understanding of the climate – this articulation is the feeling of the climate. They literally have a feeling, and once that's translated into a word, it's not quite the feeling, and then once you take that word of the translated feeling and try to measure it, it's really not what it is. So, pushing back on the scientists by saying, "you may actually be able to measure it," which is fine. But to discard the subjective feeling of a node in a system as less worthy than something you might measure objectively is missing the point of what the system is actually based on. A feeling is a manifestation of information and energy flow and in that respect it's actually a more direct assessment, and even though it's not numerical or measurable in numbers, it's still a more direct assessment of what the energy and information flow field pattern is in that system at that moment. That feeling is what we are defining as the climate, which again is an expression of the culture of the school.

In "The Developing Mind" the way I define "emotion" is as a shift in integration. So the felt emotional state is a really direct measure of shifts in integration, which I think is really what climates are about. When you look at all the nodes in the system (the teacher, the students, perhaps the administrators and leaders), in our general ways of assessing the climate of such an educational system, there is a disrespect for the subjectivity and subjective experience. This means that "the climate" is a scientism-climate, because we in science are almost offended by subjectivity. We think it goes against what we try to do, which is to measure things – we forget that not everything that's measured is meaningful. And not everything that's meaningful can be measured. Often in science we come across the idea that "if you can't measure it, it's not meaningful", the cultural meme of measurement creates the climate at a given moment, where in that setting the internal felt experience, the subjective experience, which is beneath and beyond words is actually considered less worthy or less meaningful or less potent or valid or reliable than words and than something you can actually measure. But you see the culture of the school is created as the climate of the moment that is felt by the nodes in the system and their interactions with each other are based on these beliefs memes that are perpetuated. And of course, at the same time – since the nodes of the systems are not separate from the system – they generate this at all times. You may think of the nodes as quantum entities, but the sum of experiences of the nodes is analog, as is the system that they're a part of.

Let try this thought experiment: Let's go to a school, say 3rd grade and let's say you ask a question about what the climate is, in terms of generative fields of a 3rd grade classroom that's within an elementary school setting, which of course is part of the larger community of schools and community of people that live in the neighborhood, of families that live a little farther away, of the state or the country etc. At the very basic level what we may ask is, if the climate of this classroom is one where the value of the generative field is creating trust and the feeling of interconnection and where each member of the community is valued for contributing in a positive way to the benefit of the individuals and a larger whole, which from the concept of integration would be said that the whole is greater than the sum of its parts. This brings me to say that the concept of integration has a great overlap with the concept of generative social fields – I think a generative field is a field that honors differences and promotes linkages so that the whole is greater than the sum of its parts and the self-organization of the complex adaptive system is to move towards optimal self-organization, which from a mathematical point of view is maximizing or optimizing complexity and in a more human, intuitive expression that's perhaps a little easier to relate to, is creating harmony. It has the five features that spell the word FACES: It's Flexible, Adaptive, Coherent (which means it's both resilient and stable over time), Energized and Stable. So, my reading of your work in generative fields overlaps

with the interpersonal neurobiology view of how to look at complex systems as having the emergent property of self-organization and then asking the question: How do you optimize self-organization? To me, a generative field is a complex system that is optimizing the opportunities for this FACES flow – which is the optimizing of self-organization. And how do you do that? Well, you do that by honoring differences and cultivating compassionate linkages, the connections. Integration is the differentiation of elements and their linkage. This is exactly the mechanism that sits behind "the whole is greater than the sum of its parts" and it's also the opportunity for the individual nodes to enter into the state of the "mwe" (comprised of "me" and "we"). This is the idea that yes, every node is an entity with a body that needs to sleep well and eat well and exercise and enjoy and all sorts of things related to "I'm a body" which is the me, but an equally important part of the definition of "self" is "we". I don't give up the "me" but I embrace the fully equal but different "we"-aspect of myself. That's a way of expressing: I'm as much the system as a whole as I am the node in the system. It expands the definition of self, not just scientifically but I think we need to teach children this in schools. So, when I read the introduction you sent to what we have been talking about today the first thing that came to my mind was that in modern culture there is a very disturbing climate that we live in from a culture of isolation and independence, where the self has been embedded within the media, within schools, within families and even within science as separate. That does two really bad things: that delusional belief throughout society and schools basically tells you "you're in this by yourself" which is a lie that makes people feel unhappy and alone. And in their misery, people that are vulnerable and carry and are a representative of their own feeling of incompetence and lack of agency and hurt they're trying to get rid of all this - by, for example, killing others. The only way as a psychiatrist I can understand the sort of mass killings we see in the US is these vulnerable people are representing a vulnerability in the shooter that he (or, less frequently she) cannot tolerate. The climate of our larger culture makes these settings the lie that creates unhappiness in the individual as well as a lack of belonging and then the lie makes it so that the act of murder, not just the murder of a person but also the murder of our planet, expresses "who cares – it's not me!".

So what I hear in what you and Peter are doing which is in the overlap of systems – not just systems thinking but systems living, really – systems culture, then it's not just an exercise in a classroom for people to say "oh, we're part of a system" it's actually rethinking the whole culture and the climate that the culture creates in the moment. And when you look at it that way you realize that we have to go deep into a cultural, anthropological view and say what is the message here – well, the message is "you're in this by yourself, baby – you're alone; and it's not even in your body, it's just up in your little brain". So people are even disconnected from their bodies with their heart and their gut where

they might feel "no, I am actually part of a whole". If you just live in your brain, you're an isolated little gnome – you're a nothing. That feels horrible and some people can only respond to this by acting out in a destructive manner against this vulnerability that they cannot tolerate and cope with in themselves. This understanding of a "mwe" is just the opposite of all that: you're a me and a we, that's part of reality. It's not a religious or separate view, it's merely a consequence of what we know from science already.

When you look at social-emotional learning and combine that with mindfulness learning and systems learning, the mwe is fundamentally a part of all these 3 things, which are all woven of the same cloth.
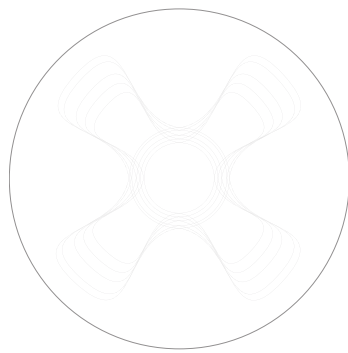
To summarize: feelings generate the social field and they're also shaping or monitoring the field. It is a process of recurrence and the structures are non-linear. Therefore the feedback loops are adequate for modeling such structures which sometimes makes people a little uneasy because of the degree of interdependence and complexity of the non-linear system.

If you look at patterns of energy and information flow exchange – let's use that as a metaphor for what's happening in a classroom climate – you can see something which we study in attachment theory all the time. This is called resonance (or vocal rhythm matching) and it is something you can assess in the interactions between, for example, the teacher and the students: The Presence, the Attunement, the Resonance and Trust (PART). You can examine and assess the level that this is played out in each node in the system.

Let's play it like this: I'm the teacher, and I say something to you, then you can measure how the parts are played out. Are you present with me? Are you attuning to me? Do you resonate with me? Is trust developed? With this, it is actually possible to assess the part each node plays. So if I ignore you, or you are clearly distressed but I just respond with the content of your message and not attuned to the emotional meaning of your message and your tone of voice, etc. I would not be resonating with you. And there wouldn't be much trust established. All this happens within about 3-5 seconds that constitute the present moment. Within this present moment exchange, you have already developed a lack of trust, which means you go inward and will hesitate to show your vulnerability in the next encounter.

So, when we look at the way people as nodes in the systems are taking PART in exchanges we quickly see how the climate can be created to basically ignore subjective experience, understood as the individually felt moment of each member of the system. Such a cli-

mate, within a minute or two, teaches everyone that it's better to keep the vulnerable stuff to oneself. So, within five minutes or so the created climate teaches that students are not supposed to be authentically there, they're supposed to be pulling back and to only be participating in extremely selective forms, offering types of objective information only. Soon then, it becomes all these little digital packages that are offered up to meet the criteria of the culture established as the unit of fair exchange. Climate then becomes withdrawn and inhibited. These are all words you often feel when you go into a classroom. I spent a year observing classrooms in elementary schools, sitting there doing nothing but feeling the climate (lacking the term social field, which I didn't have at the time). You can feel when a teacher has it very controlled, knowing which of the digital packets of information she should receive with honor and respect, and the kids acted accordingly. In other classrooms the teacher was more tuned in to the analogue, inviting in the whole self of the student. What happens when you bring your whole, analogic self – not just digital packages of words and "right answers" there is a feeling of joining, which itself is analogic. You don't join from a digital filter. You join from an analogic flow, and that joining allows the students to be fully members of the classroom system without losing their identity. The digital thing is filled with the constraints and vulnerability of isolating the self in the individual body or even worse in the head. This restricted, digital climate creates its own limitations.

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