

Instructional
Leadership Institute:

Theoretical and Empirical Findings from Research

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Instructional Leadership Institute: Theoretical and Empirical Findings from Research

The following is a summary of research evidence demonstrating the rationale for implementation of LSI's Instructional Leadership Institute (ILI). The ILI meets criteria for Tier 4 evidence-based activities under Section 8101(21)(A) of the Elementary and Secondary Education Act (ESEA), as reauthorized in 2015 as the Every Student Succeeds Act (ESSA). The Team Diagnostic Survey (TDS), used to measure and support team growth within the ILI, meets criteria for Tier 1 evidence-based activities.

The ILI is grounded in extensive research about team effectiveness. Expert teams are essential to creating and sustaining schools where all students experience equity and access to rigorous and rich learning experiences.

Effective Teams Research

Teams are social entities with common goals and a high degree of task interdependency (Salas, Cooke, & Rosen, 2008). Teamwork consists of complex interactions needed to organize and complete tasks and reach team goals (Marks, Mathieu, & Zaccaro, 2001). Behavioral, cognitive, and motivational factors affect team performance (Shanahan, Best, Finch, & Sutton, 2007).

Behavioral Factors

Behavioral factors in team performance include information exchange, communication, monitoring, supporting, leadership and initiative, coordination, cooperation, assertiveness, decision making, and adaptability.

Cognitive Factors

Cognitive factors encompass the team and individual mental models, transactive memory, and situational awareness. Mental models affect understanding and interpretation of data. The more accurate and stronger the team mental model is, the better team members can anticipate and respond to each other's needs, assess situations, and work together on solutions (Smith-Jentsch, Cannon-Bowers, Tannenbaum, & Salas, 2008). Transactive memory systems consists of each team member's memory plus communication of this memory among team members. Situational awareness is the ability of each member of the team to understand the current situation and make reasoned decisions. The highest performing teams have high levels of individual and collective situational awareness. Shared cognition is critical to team performance. This includes the degree to which team members communicate their mental models, and their situational awareness. Shared cognition influences the team's ability to adapt to change, especially under stress (Salas, Cooke, & Rosen, 2008).

Motivational Factors

Motivational factors that affect team performance are the team's collective efficacy, cohesion, and trust. Collective efficacy is the belief by the team that they can accomplish the task at hand. It influences the persistence of the team and its selection of strategies. It is itself influenced by the team's prior experience of their performance, leadership, resources,

and the structure of tasks. Collective school efficacy is the efficacy belief system of the school staff. It contributes significantly to schoolwide academic achievement. Where collective efficacy beliefs are low, school performance is low. When collective efficacy beliefs are high, school performance is high (Bandura, 1993). Teacher collective efficacy is more predictive of student achievement than student socioeconomic status, prior achievement, home environment, parental involvement, motivation, persistence, and engagement (Donohoo, Hattie, & Eells, 2018).

Team cohesion results from factors that induce members to remain with a team (Shanahan, Best, Finch, & Sutton, 2007). Three factors contribute to team cohesion: interpersonal attractions, commitment to task, and group pride. Team cohesion and collective orientation are closely related. Collective orientation consists of willingness of team members to seek and give feedback, and to subordinate their individual desires to the good of the team.

Trust, Psychological Safety, Positive Emotions, and Leadership

Trust is the common perception of team members that everyone on the team is acting in the best interest of the team and its members. It is associated with psychological safety, and the willingness of team members to take risks and demonstrate vulnerability to other members. It is critical to the success of teams (Shanahan, Best, Finch, & Sutton, 2007). Teams should periodically assess the level of

psychological safety they feel, and address the results (Delizonna, 2017).

When presented with tasks that require their intelligence, skills, and thoughtful action, teams need psychological safety. This is particularly important when teams are challenged with changes and uncertainty. Edmondson (1999) examined the extent to which learning happens in teams, and under what conditions. Learning is an essential process of teams. Learning behavior includes asking for help, admitting errors, and seeking feedback. Psychological safety strongly influences team learning behaviors. Psychological safety is the “shared belief that the team is safe for interpersonal risk taking” (Edmondson, 1999, p. 354). In teams where there is psychological safety, team members trust in each other’s intentions and confidence in the team’s mutual respect. Psychological safety may be described as the degree to which members of a team feel valued and comfortable being themselves (Edmondson, 2003). It describes the degree of interpersonal risk that people perceive as a normal aspect of the workplace. Psychological safety is essential to learning and changing behavior. It creates a climate where people can have productive discussions to eliminate problems and accomplish goals without focusing on self-protection.

Psychological safety allows positive emotions to build within teams. Positive emotions broaden the scope of awareness, allowing individuals to access a broader array of thoughts and actions. They foster the ability to discover new knowledge, new

alliances, and new skills (Fredrickson, 2013). Positive emotions lead to unusual thought patterns, increased mental flexibility and inclusiveness, creativity, integration, openness to information, the ability to think forward and at a high level, and increased efficiency. Positive emotions create increased interest in variety and willingness to consider a wider variety of behavioral options. The increased awareness that arises from positive emotion allows people to see connections among disparate ideas and act with greater creativity and flexibility. Positive emotions are predictive of broadened, holistic cognition, increased attentiveness, and improved ability to switch tasks when encountering new information.

Positive emotions cause people to expand their circle of trust, to become more inclusive, and more inclined to see others as part of their inner circle. Positive emotions eliminate own-race bias (Fredrickson, 2013). People with positive emotions are more skilled at perspective-taking and showing compassion for those of different cultural backgrounds.

Creating a psychologically safe culture for teams is responsibility of leadership. Building that culture requires leaders to demonstrate humility, to admit fallibility in understanding and communicating, and to ask for feedback (Delizonna, 2017). Leaders who are accessible, solicit input, and model openness promote psychological safety. In his study of good-to-great transformation of companies, Collins (2005) and his colleagues discovered that all Level 5 leaders demonstrate a combination of humility and professional will. Although organizations require more than a Level 5

leader to become great, no organization becomes great without one.

Humility is an important element in fostering team effectiveness (Owens, Rowatt, & Wilkins, 2011). It is defined as the way individuals recognize and deal with limits in a skillful and productive way. As the world of work becomes more uncertain and accelerated, it requires interdependent teams that acknowledge their collective knowledge and skills as well as their ignorance and inexperience. Leader humility encourages teams to be open to new ideas and learning as it grounds teams in a realistic assessment of their present limitations. Humility allows teams and individual team members to evaluate their work objectively and nondefensively. It also gives individuals within the team the space to recognize the strengths and weaknesses of other team members without feelings of superiority or inferiority; all members have dignity. Teams with humility are not afraid of trial-and-error learning.

Humility within teams is also essential to establishing positive and satisfying interpersonal relationships and psychological safety. It fosters cooperation and helping behaviors. Teams with humility benefit from the synergy of the team members' combined knowledge and skills. Teams establish a form of community in which the practice of humility supports the growth of the team's skills and knowledge.

For leaders, humility requires the courage to be vulnerable so that the organization can improve. Leaders with humility model for their organizations how to effectively navigate through uncertainty and cope with change. Organizations with humble leaders have strong learning orientation. It is a key characteristic of the highest form of leadership (Collins, 2005).

Creating Effective Teams

Effective teams are those that meet three criteria: 1) they serve their customers well; 2) the continuously improve their performance as they gain experience; 3) individual members learn from, and derive fulfillment, from being part of the team (Hackman, 2002). Teams can achieve a balance among creativity, agility, team learning, control, and precision under the guidance of a skilled and knowledgeable leader. There are, however, conditions that must be in place for teams to grow and flourish.

Enabling Conditions

There are six enabling conditions for effective teams (Wageman, Nunes, Burruss, & Hackman, 2008):

1. A Real Team – Members of the team know who is, and is not, on the team. Its membership is stable, giving members time to learn how to work well together. Team members are interdependent, relying on each other's knowledge and skill to accomplish collective tasks.

2. A Compelling Direction – The team has a clear idea of their unique contribution to accomplishing their organization’s goals.
3. The Right People – Each team member brings a skill set to the team that is essential to accomplishing the team’s purpose.
4. A Solid Team Structure – The team is the right size to accomplish the work. Its tasks are well-designed and strategic to accomplishing the organization’s goals. The team has clearly established norms of behavior for work within and outside of the team.
5. A Supportive Organizational Context – The organization provides the resources, education, and information that teams need to accomplish their tasks. Teams receive rewards when they excel together.
6. Competent Team Coaching – The team receives continuous coaching to improve its collective skills.

before the team meets for the first time. The 30 percent phase is the actual team launch. The team learns its boundaries, who is on the team and who is not, how they will work together, what skills and knowledge they each bring to the team, and what their collective purpose is. During the 10 percent phase, the leader provides coaching for the team to help them respond and adapt to challenges and grow.

Team Diagnostic Survey

LSI has exclusive rights to use the Team Diagnostic Survey (TDS) in the K-12 educational setting. This instrument has been validated through two well-designed and well-implemented experimental studies, showing statistically significant effect on improving team effectiveness. The TDS meets standards for Tier I evidence-based activities under Section 8101(21)(A) of the Elementary and Secondary Education Act (ESEA), as reauthorized in 2015 as the Every Student Succeeds Act (ESSA).

Wageman, Hackman, and Lehman (2005) developed the TDS so that it can be used as both a tool to diagnose the strengths and weaknesses of teams and as a source of data for scholarly research on teams.

The broad definition of team effectiveness includes three primary indicators:

1. The output of the team is acceptable to the team’s client – those who use that output.

Supporting Structures

Leaders of new teams often need help determining where to focus their time and energy. To respond to this need, Wageman (2021) created the 60-30-10 rule. This rule states that leaders should put 60 percent of their energy in the prework – the design – of the team. During this 60 percent phase, leaders determine how to get the first 5 conditions in place for their team: Real Team, Compelling Purpose, Right People, Solid Structure, Supportive Organizational Context. Designing for these conditions happens

2. The processes the team uses to work together build each member's capacity to perform the team's work.
3. The experience of working in the team enhances each team member's sense of satisfaction and well-being.

To generate work that is acceptable to the team client, the TDS assumes the joint function three process criteria of effectiveness, and measures the team's standing in each:

1. Level of effort
2. Appropriateness of task to performance strategies
3. Team member knowledge and skill

Enabling conditions are those that increase the probability that the team's efforts will be successful. The TDS measures 5 enabling conditions:

1. The people responsible for the work are a real team.
2. The team has a compelling direction for its work.
3. The team's structure facilitates its collective work.
4. The organization within which the team functions supports the team's work.
5. The team has access to coaching that allows it to maximize its performance potential.

All measures collected by the TDS, except those items that assess individual motivation and satisfaction, are designed for analysis at

the team level. It provides reliable indicators about the quality of team design and leadership. It most benefits teams who examine the results collectively and reflect on how to improve their performance on the enabling conditions.

Eisele (2013) validated a Swedish-language version of the Team Diagnostic Survey (TDS), and tested its impact on team effectiveness when used as an intervention. The study was a randomized control trial model in which teams were assigned to experimental and control groups. Eisele examined descriptive statistics for team independence, the Five Enabling Conditions of a Team, Leader and Peer Coaching Activities, and Team Effectiveness for each of participating teams. Results indicated that the Swedish TDS had the same internal consistency and discriminant validity as the English version.

The strength of the TDS is its ability to empirically measure team effectiveness in ways that are clear to all stakeholders. It also provides more information about how teams work together, how they use knowledge, and how they decide on strategies to meet their goals. When teams use the TDS to measure and monitor their progress, they grow in their collective efficacy and skill (Wageman, 2021).

The Importance of PLCs

Within the K-12 setting, Professional Learning Communities (PLCs) are teams charged with the critical task of continuously improving student learning. PLCs support their members

by sharing their professional practice so that every teacher can attain proficiency in helping all students learn.

Effective PLCs exhibit essential characteristics of successful teams. These characteristics include shared vision and values, collective responsibility for student learning, collaboration focused on student learning, individual and collective professional learning, reflective enquiry, openness, inclusiveness, mutual trust, respect, and support (Williams, Brien, & Sullivan, 2008; Antinluoma, Ilomäki, Lahti-Nuuttila, & Toom, 2018).

Leaders are critical to creating and sustaining PLCs (DuFour & Mattos, 2013; Graham & Ferriter, 2008). They must create a learning culture that ensures learning at all levels. Distributed leadership is essential to functioning PLCs, as teachers assume greater responsibility for the impact of their teams' efforts on student learning. Leaders help PLCs navigate change by promoting reflective inquiry, trust, and positive working relationships within the school.

PLCs change over time with experience (Bolam, McMahon, Stoll, Thomas, Wallace, Greenwood, Ingram, Atkinson, & Smith, 2005). Throughout the growth of PLCs, leaders must coordinate and support continuing professional learning, and ensure that PLCs have time and space for collaboration. Graham and Ferriter (2008) postulate 7 stages of development for PLCs, and recommend that school leaders continuously coach PLCs through all stages:

1. Filling the Time – Teams are unsure what to do when they meet. Leaders must set clear expectations and establish structures for PLCs.
2. Sharing Personal Practices – Teachers are interested in learning what their colleagues are doing. Leaders must require teams to make collaborative decisions about curriculum, assessment, and instruction.
3. Planning, Planning, Planning – Teachers work together to determine what they should be teaching, and how to share the planning workload. Leaders must focus the PLCs' attention on determining whether their students have learned what they planned to teach, and how they will know it.
4. Developing Common Assessments – Teachers think about what students should learn and the evidence of student learning that indicates mastery. Leaders often must guide teams through disagreements and model for them how to make collaborative decisions.
5. Analyzing Student Learning - Teachers examine data to determine if students are learning what they should be learning. Leaders at this stage must often provide both technical and emotional support, helping the PLCs to create a safe, non-judgmental environment for improving results.
6. Differentiating Follow-Up – Teacher teams at this stage take collective responsibility for student learning and

are self-governing. Leaders support PLCs by posing questions of practice and encouraging teams to continue growing professionally.

7. Reflecting on Instruction – Teacher teams inquire into the practices that are most effective for their students. Leaders facilitate these discussions to help PLCs more deeply examine the connection between teaching and learning.

To develop and sustain strong PLCs, DuFour and Mattos (2013) recommend that leaders organize faculty into collaborative teams where there are shared goals and mutual accountability for results. They must ensure that PLCs examine every practice, process, and procedure to ensure that it leads to learning for every student. PLCs establish learning goals for all students, pacing goals for instruction, and common formative assessments, and create a coordinated plan for intervention for students that is diagnostic, timely, and systematic. They use evidence of student learning to identify students who need additional time and support and those who need enrichment and extension.

Leadership Styles

Building on the leadership styles originally described in classic research by Lewin, Lippitt, and White (1939), Toth (2021b) postulates a range of leadership styles and applies them to the education setting, with associated strengths and weaknesses for each style.

Commander - issues orders and directs the group.

Consensus – seeks input and grants greater autonomy to the group.

Politician – motivates and inspires the group without providing detailed instructions or guidance.

Nurturer/Parental – directs and controls the group by creating a parent-child relationship.

Technocrat – focuses on guiding the group through processes, procedures, and data.

Hero – Sets the vision for the group and relentlessly pursues it despite all risks.

Laissez-faire – Sets direction for the group and delegates all tasks, providing little additional guidance.

Balanced – Uses many different leadership styles depending upon situational need.

Coercive/Toxic – Uses threats, innuendo, and demeaning behaviors to gain control of the group.

Leaders should become aware of their native leadership style. Considering their schools' phase of instructional maturity, it may be necessary for leaders to develop a wider repertoire of behaviors to guide their schools to higher levels, or to seek others for their leadership team who can help to provide more balance.

School Instructional Maturity Model (SIMM)[®] (Toth, 2021a)

The SIMM is a systems framework for school improvement. It describes a continuum of maturity phases for schoolwide systems and indicators associated with each phase. Leaders use the SIMM to identify the current level of systems maturity in their schools and to monitor and support growth in these systems over time. There are six systems, or pillars, described within the SIMM: 1) Conditions for Self-Regulation and Agency; 2) Core Instruction; 3) Collaboration (PLCs); 4) Curriculum and Assessment; 5) Data to Drive Improvement and Interventions; and 6) Leadership Systems.

Conditions for Self-Regulation and Agency

These conditions manifest in the way the students behave, how they treat each other and their teachers, and how they see themselves as learners. Indicators of mature Conditions for Self-Regulation and Agency include increased student social and emotional competence, high levels of intrinsic motivation, and strong student ownership of learning.

Core Instruction

Core instructional systems encompass classroom instructional routines and practices that influence how students experience learning. The maturity continuum for core instruction ranges from teacher-centered

instruction to team-centered academic learning. Indicators of mature Core Instruction include students empowered to take ownership of learning in teams, teachers having more time to provide individualized supports for students who need it; teachers designing cognitively demanding tasks for deeper student learning; students expressing greater self-efficacy; a classroom culture of inclusivity, empathy, acceptance, and mutual support; all students experiencing equity of access to rigorous, standards-based instruction; and students demonstrating 21st century workplace skills of leadership, decision-making, and conflict resolution.

Collaboration (PLCs)

Collaboration systems determine how effectively teachers collaborate within teams, analyze student data, manage interventions, drive instructional and curricular improvements, plan rigorous lessons, and take ownership of ambitious goals for student learning. Indicators of mature Collaboration include teachers using real-time data (daily student work) to determine their responses to student needs; teachers proactively eliminating daily learning gaps by identifying students who are not attaining the learning goals and taking immediate steps to adapt instruction to their needs; all teachers in the school actively participating in teams that set high standards for themselves, support each other in reaching ambitious learning goals for students, and continuously improve their collective practice and pedagogical skills.

Curriculum and Assessment

These systems determine whether students experience the full intent and rigor of academic standards through high-quality learning tasks, whether they are learning during core instruction rather than in interventions, and how teachers integrate assessments within instruction to guide instructional decisions. Indicators of mature Curriculum and Assessment include routine use of formative assessment to proactively close student learning gaps and prevent the need for interventions; high levels of equity as all students engage in learning tasks at the level of academic rigor of the standards; rigorous learning tasks designed by teachers who are experts in the academic standards.

Data to Drive Improvement and Interventions

These systems encompass short-cycle, mid-cycle, and long-cycle data, the alignment of leader and teacher actions to metrics and goals, and the real-time improvement of student learning actions and work. Indicators of mature Data to Drive Improvement and Interventions include short-cycle, predictive

assessments that provide real-time data about student performance and how to improve it; and district leaders, school leaders, school leadership teams, and teachers who collectively align their actions and use reliable progress metrics by around common, measurable goals.

Leadership Systems

These systems determine the degree to which power is distributed to teams, how leaders coach teachers, the clarity and alignment of goals and responsibilities from the leader to teachers, and the level of empowerment and ownership throughout the school. Indicators of mature leadership systems include leaders who empower, monitor, and coach teams; team members who invest discretionary effort into their teams' work; increased team ownership of the results of their collective efforts; schools where everyone knows how to contribute effectively to accomplish the school mission.

and Distrust in Organizations: Dilemmas and Approaches (pp. 239–72). New York: Russell Sage

References

- Antinluoma, M., Ilomäki, L., Lahti-Nuuttila, P., & Toom, A. (2018). Schools as professional learning communities. *Journal of Education and Learning*, 7(5), 76-91. <https://doi.org/10.5539/jel.v7n5p76>
- Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist*, 28(2), 117-148.
- Bolam, R., McMahon, A., Stoll, L., Thomas, S., Wallace, M., Greenwood, A., Hawkey, K., Ingram, M., Atkinson, A., & Smith, M. (2005). *Creating and sustaining effective professional learning communities* (Research Report No. 637). University of Bristol. <https://dera.ioe.ac.uk/5622/1/RR637.pdf>
- Collins, J. (2005). Level 5 leadership: The triumph of humility and fierce resolve. *Harvard Business Review*, 7, 136-146.
- Delizonna, L. (2017). *High-performing teams need psychological safety. Here's how to create it.* Harvard Business Review. <https://hbr.org/2017/08/high-performing-teams-need-psychological-safety-heres-how-to-create-it>.
- Donohoo, J., Hattie, J., & Eells, R. (2018). The power of collective efficacy. *Educational Leadership* 75(6), 40-44. <http://www.ascd.org/publications/educational-leadership/mar18/vol75/num06/The-Power-of-Collective-Efficacy.aspx>
- DuFour, R., & Mattos, M. (2013). How do principals really improve schools? *Educational Leadership* 70(7), 34-40.
- Edmondson, A. C. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*, 44, 350-383.
- Edmondson, A. C. (2003). Psychological safety, trust, and learning in organizations: a group-level lens. In R. M. Kramer, K. S. Cook (Eds.), *Trust*
- Eisele, P. (2013). Validation of the Team Diagnostic Survey and a field experiment to examine the effects of an Intervention to Increase team effectiveness. *Group Facilitation*, 12, 53-70.
- Fredrickson, B. L. (2013). Positive emotions broaden and build. In P. Devine, A. Plant (Eds.) *Advances in experimental social psychology* (Vol. 47, pp. 1-53). Elsevier.
- Graham, P., & Ferriter, B. (2008). One step at a time. *Journal of Staff Development*, 29(3), 38-42.
- Hackman, J. R. (2002). *Leading teams: Setting the stage for great performances*. Harvard Business School Publishing Corporation.
- Lewin, K., Lippitt, R., & White, R. K. (1939). Patterns of aggressive behavior in experimentally created "social climates." *Journal of Social Psychology*, 10, 271-299.
- Marks, M., Mathieu, J., & Zaccaro, S. (2001). A Temporally Based Framework and Taxonomy of Team Processes. *The Academy of Management Review*, 26(3), 356-376.
- Owens, B. P., Rowatt, W. C., & Wilkins, A. L. (2011). Exploring the relevance and implications of humility in organizations. In G. M. Spreitzer & K. S. Cameron (Eds.), *The Oxford handbook of positive organizational scholarship* (pp. 260–272). Oxford University Press.
- Salas, E., Cooke, N.J., Rosen, M.A. (2008). On teams, teamwork, and team performance: Discoveries and developments. *Human Factors*, 50(3), 540-547.
- Shanahan, C., Best, C., Finch, M., & Sutton, C. (2007). *Measurement of the behavioural, cognitive, and motivational factors underlying team performance*. Commonwealth of Australia, Defence Science and Technology Organisation.
- Smith-Jentsch, K.A., Cannon-Bowers, J.A., Tannenbaum, S.I., & Salas, E. (2008). Guided team self-correction: Impacts on team mental

models, processes, and effectiveness. *Small Group Research*, 39(3), 303-327.

Toth, M. D. (2021a). *School Instructional Maturity Model (SIMM)* [Unpublished manuscript]. Learning Sciences International Applied Research Center.

Toth, M. D. (2021b). *SIMM leadership styles* [Unpublished manuscript]. Learning Sciences International Applied Research Center.

Wageman, R. (2021). *The Team Diagnostic Survey and the 60-30-10 rule for coaching teams*. <https://6teamconditions.com/bibliography/the-team-diagnostic-survey-and-the-60-30-10-rule-for-coaching-teams/>.

Wageman, R., Hackman, J. R., & Lehman, E. (2005). Team diagnostic survey. Development of an instrument. *Journal of Applied Behavioral Research*, 41(4), 373-398.

Wageman, R., Nunes, D. A., Burruss, J. A., & Hackman, J. R. (2008). *Senior leadership teams. What it takes to make them great*. Harvard Business Review Press.

Williams, R., Brien, K., Sprague, C., & Sullivan, G. (2008). Professional learning communities: Developing a school-level readiness instrument. *Canadian Journal of Educational Administration and Policy*, 74, 1-17.

Our vision for education is to close the achievement gap. Equip all students with the social, emotional, and cognitive skills they need to thrive in the 21st century. Expand equity by giving every child access to rigorous core instruction that empowers learners to free themselves from generational poverty.

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