

Conference Proceedings of the 2024 KAI Symposium

Online - February 21-22, 2024

Change that Matters

Recognizing that KAI practitioners can help those who want to enact change in order to make things better or different.



COLLEGE OF AGRICULTURE AND LIFE SCIENCES
CENTER FOR COOPERATIVE
PROBLEM SOLVING
VIRGINIA TECH.





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Note that not all abstracts are included in the KAI Symposium Proceedings, either because the author wishes to seek another publication outlet for the presented research, or due to the presentation including proprietary information.

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2024 KAI Symposium Schedule

February 21, Wednesday, 12:30 PM to 4:30 PM (EST) [*or 5:30 to 9:30 PM (GMT)*]

February 22, Thursday, 9:30 AM to 4:30 PM (EST) [*or 2:30 to 9:30 PM (GMT)*]

Pre-Sessions - Wednesday, February 21 (all times listed as EST)

11:00 AM to Noon – How to Win Friends and Influence People--using KAI Theory.

A free introductory workshop to learn more about KAI. For anyone to attend. Come and bring a friend.

Noon to 12:30 PM – Chat with Advisory Council

Questions and Answers with the Advisory Council for the KAI Foundation and Center for Cooperative Problem Solving, at Virginia Tech. Using the same Zoom link as the main Symposium link.

Wednesday, February 21 (all times listed as EST)

12:30 PM – Symposium Begins

Meet and Greet with Networking.

12:45 PM

Welcome and announcements from the KAI Foundation, and Center for Cooperative Problem Solving, at Virginia Tech.

1:00 PM

Keynote Address – Dr. Guido Prato Previde, Managing Owner, [Decathlon Consulting](#). Italy. **A Walk in the Park with KAI.** This interactive keynote address will include several opportunities for discussion in breakout rooms.

2:15 PM

Break

2:30 PM

Keynote Speaker – James Pickles, Certified Performance Coach, [James Pickles Coaching](#). United Kingdom. **'From Breakdown to Breakthrough' - Learning Valuable Lessons on the Importance of Failure and Collaboration, the Hard Way.**





Wednesday, February 21 (continued)

3:00 PM

Breakout rooms to discuss James Pickles' keynote address.

3:30 PM

Break

3:45 PM

Panel Discussion led by John Bryant, with panelists: Dr. Guido Prato Previde, Dr. Megan Seibel, & Dr. James Anderson. **Health and Care: Exploring the Links between Problem-solving Style, Motivation, and Stress.**

4:30 PM

Adjourn for the day.

Thursday, February 22 (all times listed as EST)

9:30 AM

Welcome Back! Announcements for the Day.

9:45 AM

Keynote Speaker – Matt Marsh, FRSA, Founder, [People-Shaped Change](#). United Kingdom.
Winning the Hearts and Minds of the Change Averse – A People-Shaped Approach.

10:15 AM

Breakout rooms to discuss Matt Marsh's keynote address.

10:45 AM

Break

10:55 AM

Round 1 of Concurrent Presentations

Session A, Roundtable Discussion 1

Change that Matters – Developing Integrated Systems of Care and Health

By John Bryant, Integrated Care and Generative Relationships, Learning & Development Centre

Session B, Roundtable Discussion 2

Is the KAI Framing of Opportunity Sufficient?

By Tony Cevoli, Divergent Design, & Dr. Rob Samuel





Thursday, February 22 (continued)

11:35 AM

Structured Networking Activity: **Strategies for Surmounting Team Resistance to Necessary Change: Leveraging Problem-Solving Styles to Achieve Results**
With Dr. Anika Davis and Jessica Prater, Leaders of the KAI Circle of Practice

12:15 PM

Lunch on Your Own

1:15 PM

Round 2 of Concurrent Presentations

Session A, Presentation 3

The Impact of Cognitive Style Gaps when Leading Change

By Paul Erricker, The Project Academy

Session B, Presentation 4

Potential Application of Kirton's Adaption-Innovation (A-I) Theory in Program Evaluation

By Nicolas Uwitonze, Dr. Hannah Sunderman, & Dr. Thomas Archibald, Virginia Tech

1:55 PM

Round 2 of Concurrent Presentations (continued)

Session A, Roundtable Discussion 5

Sharing Examples of Adaption-Innovation from Today's World

By Dr. Deborah Pettry, Learning Zenith

Session B, Presentation 6

Teaching Change that Matters: Lessons from a Graduate Course on KAI

By Dr. Jerald Walz, Virginia Tech

2:35 PM

Break

2:50 PM

Round 3 of Concurrent Presentations

Session A, Presentation 7

Upgrade Critical Thinking Skills with Style

By Anne Collier and Cynthia Shaffer, Arudia

Session B, Presentation 8

KAI, Ideation and a System of Theft

By Ben Atkinson, CNA Insurance





Thursday, February 22 (continued)

3:30 PM

Round 3 of Concurrent Presentations (continued)

Session A, Roundtable Discussion 9

Understanding KAI Within the Context of the Creative Arts

By Dr. Samantha Giridhar, University of Hawai'i - West O'ahu

Session B, Roundtable Discussion 10

Bridging Research and Practice: Working Smarter, Not Harder

By Dr. Sarah Bush, University of Florida

4:10 PM

Moving KAI forward in 2024

By Nicola Kirton Ryall, Curt Friedel, and Megan Seibel

4:30 PM

Adjourn for the day and end of KAI Symposium.



Change that Matters – Developing Integrated Systems of Care and Health

By John Bryant, *Integrated Care and Generative Relationships, Learning & Development Centre*

The Creative Provocation

KAI research shows that Anchor institutions¹ have not typically been innovative. Yet innovation is key for new models of care. Innovation in this case being the need ‘to do different’ rather than make the existing system better. Whilst there are efficiencies to be achieved the scale and breadth of present and future challenges are such that new partners, new partnerships, and new ways of working between existing system partners are required in pursuit of solutions for a sustainable health and care system.

There is a need to change the decision-making balance and reflect on existential crisis versus possibly misplaced internal risk aversion. How can institutions being a key part of the present system be supported to empower innovators and support the necessary entrepreneurial approach.

Situation Statements

- The health and care of citizens is a global challenge equivalent to climate change.
- There is increasing demand for care and health services due to increased longevity, changes in family caring responsibilities along with a reduction in workforce capacity as a percentage of that required and a financial burden, all of which are associated with aging populations.
- Without good health people will not be well enough to benefit from the success in addressing climate change.
- Health care is siloed for numerous reasons and few systems are geared to provide population wellbeing associated with the foundations of health². They are traditionally and understandably geared to be lifesaving and health rectifying; that is, keeping people alive rather than giving them a life (wellbeing, happiness, and love). Health systems are rarely illness preventative and often fail to intervene early due to the numerous constraints of

¹ <https://www.kingsfund.org.uk/insight-and-analysis/long-reads/anchor-institutions-and-peoples-health>

The Kings Fund – an independent, highly regarded think tank in the UK defines them as:

- [Anchor institutions](#) are large organisations that are unlikely to relocate and have a significant stake in their local area. They have sizeable assets that can be used to support their local community’s health and wellbeing and tackle health inequalities, for example, through procurement, training, employment, professional development, and buildings and land use.
- This definition is not limited to public sector organisations, as anchor institutions are defined more by their link to a place than their sector. There are many private and voluntary sector organisations that hold a significant interest in the long-term development and health of their local areas. This includes organisations with their local geography as part of their identity or with responsibility for significant infrastructure, such as airports or water companies.

² <https://www.gov.uk/government/publications/health-profile-for-england/chapter-6-social-determinants-of-health>



funding, staffing and priority setting along with a lack of integrated system education during training.

- Social care both as a profession and community action, offers people connection, support and has insight to where deterioration can be avoided, the requirements for healthcare reduced (including finance and workforce demand) and safeguards the vulnerable.
- Both health and care face the same three challenges – workforce, finance, technological transformation – both have very different languages and approaches.

The Task

The future model of care is one where services across the spectrum are integrated – requiring delivery through new partnerships, collaboration and funding models which are subsequently refined and adapted.

Roundtable Discussion Questions

1. “Nobody thanks you for solving a problem they don’t know they have.” What would we share with them (health and social care and community providing stakeholders) to encourage understanding, reflection, acknowledgement and develop a desire for action?
2. Do Health & Care Anchor institutions need to be innovative to deliver situationally effective transformation?
3. What can be done to help anchor institutions embrace innovation in VUCA times, and shift their strategy and decision making to more innovative solutions?
4. Are they capable of being innovative – if not, why not?
5. Are there different drivers for Anchor institutions depending on whether they are responsible to shareholders or governments?
6. How can they be helped to identify, quantify, relate to both the issue and the opportunity?





Is the KAI Framing of Opportunity Sufficient?

By Tony Cevoli, *Divergent Design*, & Dr. Rob Samuel

Kirton (2011) maintains that “all of us are intelligent, and creative, at different levels and with different styles, and, therefore, all of us are capable of problem solving, as long as there is both motive and opportunity”. A key aspect of this statement is that the individual has sufficient appreciation of the concept of opportunity exploitation. Kirton further examines that opportunity exploitation is either revealed, sought or made. However, recently published studies have refreshed this exploration of opportunity discovery in terms of creative thinking, problem finding, divergent thinking, originality, and ambiguity (Abdulla, et.al, 2023). Additionally, researchers are studying the importance of problem finding as a precursor to problem solving as it pertains to the physical sciences and social sciences alike.

One area of current debate is the identification of the problem itself to be solved. Does the problem have sufficient clarity, posed in context, fully understood, warrant a solution, and able to be implemented? Kirton (2011) frames this identification for change in context of opportunity in the following manner. The basic elements in successful change are 1) the opportunity for change, 2) the perception of the need for change, 3) the perception that a particular available opportunity is the means to the solution, and 4) the perceived benefit of the exploitation of the opportunity against its perceived cost. Kirton further elaborates that “Naturally, there will be wariness to any suggested change (any perceived opportunity) that cannot, for whatever reason, be readily assessed as to its outcome. One reason may be that the change proposed by another is outside one’s preferred style of problem-solving search – hence the hesitation.” Kirton has sufficiently articulated opportunity within the context of adaption-innovation theory, however, beyond this statement, practitioners are faced with a lack of connective tissue between the current research on problem-finding and opportunity.

For this roundtable discussion, the proposed topics include:

- 1) What are the common areas of confusion when discussing opportunity in A-I theory?
- 2) Is Kirton’s exploration of opportunity sufficient for practitioners when applied to areas such as leadership, engineering, and entrepreneurship?
- 3) How could current research impact A-I theory’s explanation of opportunity in relationship to problem finding and divergent thinking?
- 4) What additional areas of exploration would be warranted to help refine the understanding of opportunity?

References

- Abdulla Alabbasi, A. M., Reiter-Palmon, R., & Acar, S. (2023). Problem finding and divergent thinking: A multivariate meta-analysis. *Psychology of Aesthetics, Creativity, and the Arts*. <https://doi.org/10.1037/aca0000640>
- Kirton, M. J. (2011). *Adaption-Innovation: In the context of diversity and change*. Routledge. (Original work published 2003).





Potential Application of Kirton's Adaption-Innovation (A-I) Theory in Program Evaluation

By Nicolas Uwitonze, Dr. Hannah Sunderman, & Dr. Thomas Archibald, Virginia Tech

Introduction

Program evaluation is a specialized field within applied and social science that encompasses a systematic approach to the collection, analysis, interpretation, and communication of information pertaining to the functionality and efficacy of programs (Rossi et al., 2004). At its core, this field focuses on determining the value, worth, and merit of programs or projects (Mertens & Wilson, 2019). Major paradigms, alongside various theories spanning program, evaluation and social sciences, are frequently employed in the field of evaluation to offer frameworks or theoretical lenses for guiding evaluation endeavors (Mertens & Wilson, 2019).

Despite the pivotal role of established evaluation models and frameworks, there has been a relative oversight of the human element, particularly in terms of problem-solving styles, within the field of evaluation. Yet, Kirton's Adaption-Innovation (A-I) theory elucidates the connection between an aspect of an individual's personality and their preferred style to problem solving (Kirton, 2011). At the same time, empirical evidence supporting the effectiveness of A-I theory abounds across various fields, including education (Jacobson, 1993), organizational knowledge use (Chilton & Bloodgood, 2010), management accounting (Xu & Tuttle, 2012), leadership studies (Cletzer et al., 2021; Sheffield, 2023), and entrepreneurship (Buttner & Gyskiewicz, 1993). While A-I theory has substantially impacted these fields, its potential in the field of program evaluation remains underexplored. This conceptual paper aims to initiate a discussion on the applicability of A-I theory in program evaluation. By examining the relevance and potential benefits of integrating A-I theory into program evaluation, this conceptual paper seeks to contribute to the development of a theoretical foundation for utilizing A-I theory in this field.

Connection to Adaption-Innovation Theory

A-I theory is a psychological framework that delves into an individual's cognitive approach to problem solving, change, and creativity. Developed by Dr. Michael Kirton in 1976, A-I theory offers insights on an individuals' preference to work with structure, group cohesion and generate ideas, providing a unique lens through which to understand their cognitive style (Kirton, 2011). Kirton's Adaption-Innovation Inventory (KAI), assesses an individuals' problem-solving styles, distinguishing between those more inclined toward adaption (adaptors) and those inclined toward innovation (innovators) (Jablokow, Kirton, Zhang, & Sternberg, 2009). According to Friedel (2014), adaption involves solving a problem by initially agreeing on the cognitive structure within which the problem exists and then utilizing that structure to create a solution, subsequently altering the original structure. In contrast, innovation entails solving a problem by first modifying the cognitive structure to develop a solution, thereby creating room for the structure to evolve through refinement and modification (Friedel, 2014).



Methods/Data Analysis

This conceptual paper employed a literature review approach to collect relevant data. By analyzing existing literature, we investigated the application of A-I theory in various fields, with a particular emphasis on its potential relevance in program evaluation. Synthesizing insights from the literature facilitated addressing the research question: How can A-I theory be applied in the field of program evaluation, considering its significant impact in related fields and its yet-to-be-explored potential in this specific context?

Findings and Conclusion

The key findings can be classified into several categories, including the potential application of A-I theory for a nuanced understanding of paradigms guiding research on evaluation, its application among other theoretical frameworks guiding program evaluation, the potential benefits of applying A-I theory by evaluators to determine program effectiveness, and the usefulness of A-I theory and KAI in the practice of evaluation consultants and evaluation entrepreneurs.

(1) Potential application of A-I theory for a nuanced understanding of paradigms guiding research on evaluation. The concept of a research paradigm has evolved over time and has been described in various ways within academic discourse. Originally introduced by American philosopher Thomas Kuhn in his seminal work "Structure of Scientific Revolutions" in 1962, the term paradigm denoted a philosophical way of thinking (Kuhn, 1970). It gradually gained a more specific definition, referring to the "logical or conceptual structure" serving as a framework of thought within a specific field or experience. Applying Kuhn's (1970) framework to change management, a paradigm is seen as an accepted cognitive structure or system providing guidance for problem-solving. However, when a paradigm loses its effectiveness, Friedel (2014) suggests two potential courses of action: refining it for improved efficiency or replacing it entirely. Kirton (2011) theorized that individuals categorize ideas, methods, products, and processes as either adaptive (paradigm-consistent) or innovative (paradigm-breaking). Accordingly, the A-I theory posits the potential to offer a nuanced understanding of the reasons behind researchers' choices in employing specific paradigms, refining existing ones, or creating new paradigms to guide their research. Applied to research on evaluation and related fields for instance, A-I theory holds promise for advancing conceptual and theoretical development, thereby contributing to these academic domains.

(2) Potential use of A-I theory among other theoretical frameworks guiding evaluation. Program evaluation is a multidisciplinary field that incorporates insights from sociology, psychology, economics, and education, encompassing facets like human development, learning, motivation, and behavior change (Mertens & Wilson, 2019). The inclusion of A-I theory, rooted in cognitive psychology, stands as a potential enhancement to evaluation—a transdisciplinary discipline (Scriven, 2008). For instance, A-I theory proves instrumental in fostering collaboration and participation within the evaluation process, aligning with the principles of empowerment evaluation (Fetterman & Wandersman, 2005). Additionally, it complements stakeholder engagement strategies advocated in Utilization-Focused Evaluation (UFE) by Michael Quinn



Patton. UFE, a foundational framework, prioritizes crafting evaluations tailored to stakeholders' needs, emphasizing active stakeholder involvement (Patton, 2008). A-I theory can serve as a framework for understanding the diverse problem-solving styles of program stakeholders.

(3) The potential benefits of applying A-I Theory by evaluators to determine program effectiveness. While the literature on A-I theory's application in program evaluation is limited, compelling arguments support its use in assessing program effectiveness. A-I theory provides valuable insights into problem-solving dynamics within evaluated programs, contributing to improved stakeholder engagement, innovative program design, and collaborative problem-solving. While literature on the application of A-I theory in program evaluation is limited, compelling arguments support its relevance in assessing program effectiveness. A-I theory provides valuable insights into problem-solving dynamics within evaluated programs, potentially resulting in innovative program design, and collaborative problem-solving approaches.

For example, A-I theory can guide evaluators in program design by recognizing diverse problem-solving perspectives. When evaluators recognize the presence of both adaptors and innovators within a program or project, it becomes possible to design interventions that leverage this diversity. Combining adaptors and innovators in interventions leads to balanced adaptive and innovative program structures, addressing incremental and transformative changes. In such complex problem-solving scenarios, A-I theory encourages collaborative approaches, acknowledging the unique contributions of both adaptors and innovators (Friedel, 2014).

(4) Usefulness of A-I theory within evaluation consulting and evaluation entrepreneurship. Leveraging the KAI inventory presents the opportunity to enhance team dynamics, productivity, and collaboration among independent evaluation consultants, their respective teams, clients, and other stakeholders. Since collaborative relationships and teamwork are common practices within the field of evaluation consulting (Maack & Upton, 2006), understanding and acknowledging both adaptive and innovative problem-solving styles can foster improved team working relationships. Recognizing that conflicts and disagreements may stem from preferred problem-solving approaches, rather than differences in intelligence or motives, can contribute to more effective collaboration. In this way, collaborative teams consisting of individuals with diverse problem-solving styles can leverage their differences to develop comprehensive and effective solutions to both the evaluation-specific problem (Problem A) and internal team challenges (Problem B) (Friedel, 2014).

(5) Applicability of A-I theory in evaluation entrepreneurship. A-I theory and the KAI inventory may contribute to the field of 'Evaluation Entrepreneurship,' defined as "the capacity and willingness to develop, organize, manage, and assume the risk of a business that sells evaluation products and services" (Sabarre, 2021). A-I theory holds the potential to assist evaluation entrepreneurs, serving as leaders or owners of evaluation firms, in comprehending diverse problem-solving styles. This understanding empowers them to navigate risks efficiently, lead their firms effectively, and thereby contribute to successful evaluation practices.





Finally, A-I theory reveals significant differences in problem-solving styles, providing insights into entrepreneurial decision-making. Buttner and Gyskiewicz (1993) employed Kirton's A-I theory to explore entrepreneurs' problem-solving styles, offering insights into entrepreneurial decision-making dynamics. In accordance with Goldsmith & Kerr (1991)'s study, using the KAI as a measure, combined with other measures, can facilitate the examination of theoretical models of entrepreneurial behavior, enhancing the understanding of evaluation entrepreneurship as a construct. Combining the KAI with other measures, as suggested by Goldsmith & Kerr (1991), can facilitate the exploration of theoretical models of entrepreneurial behavior, enhancing the understanding of evaluation entrepreneurship as a construct.

References

- Alkin, M. C. (2013). *Evaluation roots: A wider perspective of theorists' views and influences* (2nd Ed.). Sage Publications.
- Buttner, E. H., & Gyskiewicz, N. (1993). Entrepreneurs' problem-solving styles: an empirical study using the Kirton adaption/innovation theory. *Journal of Small Business Management*, 31, 22-22.
- Chilton, M. A., & Bloodgood, J. M. (2010). Adaption-innovation theory and knowledge use in organizations. *Management Decision*, 48(8), 1159-1180.
- Cletzer, D. A., Seibel, M. M., Kaufman, E. K., Friedel, C. R., & Elliott-Engel, J. (2021). When Leadership Terminology Collides: A Spirited Comparison of Adaption-Innovation Theory and Adaptive Leadership.
- Fetterman, D. M., & Wandersman, A. (Eds.). (2005). Empowerment evaluation principles in practice. *Guilford Press*.
- Friedel, C. (2014). The value of adaption and innovation as a function of diversity. In Approaches to managing organizational diversity and innovation (pp. 63-81). *IGI Global*.
- Goldsmith, R. E., & Kerr, J. R. (1991). Entrepreneurship and adaption-innovation theory. *Technovation*, 11(6), 373-382.
- Jablokow, K. W., Kirton, M. J., Zhang, L. F., & Sternberg, R. J. (2009). Problem solving, creativity, and the level-style distinction. *Perspectives on the nature of intellectual styles*, 137-168.
- Jacobson, C. M. (1993). Cognitive styles of creativity: Relations of scores on the Kirton Adaption-Innovation Inventory and the Myers-Briggs Type Indicator among managers in USA. *Psychological Reports*, 72(3_suppl), 1131-1138.
- Kirton, M. J. (1984). Adaptors and innovators—Why new initiatives get blocked. *Long range planning*, 17(2), 137-143.





- Kirton, M. J. (2011). *Adaption-innovation: In the context of diversity and change*. Routledge. (Original work published 2003).
- Kirton, M., Bailey, A., & Glendinning, W. (1991). Adaptors and innovators: Preference for educational procedures. *The Journal of Psychology*, 125(4), 445-455.
- Kuhn, T. S. (2012). *The structure of scientific revolutions*. University of Chicago Press.
- Maack, S. C., & Upton, J. (2006). Collaborative relationships in evaluation consulting. *New Directions for Evaluation*, 111, 57-66.
- Mertens, D. M., & Wilson, A. T. (2019). *Program evaluation theory and practice*. Guilford Publications.
- Mulligan, G., & Martin, W. (1980). Adaptors, innovators and the Kirton adaption-innovation inventory. *Psychological Reports*, 46(3), 883-892.
- Patton, M. Q. (2008). *Utilization-focused evaluation*. Sage publications.
- Robinson, D. F., Sherwood, A. L., & DePaolo, C. A. (2010). Using Adaption-Innovation Theory to Enhance Problem-based Learning Experiences. In *Allied Academies International Internet Conference* (Vol. 12).
- Rossi, P. H., Lipsey, M. W., & Henry, G. T. (2018). *Evaluation: A systematic approach*. Sage publications.
- Sabarre, N. R. (2021). *Evalpreneurship: The Role of entrepreneurship in the evaluation marketplace* (Doctoral dissertation, The Claremont Graduate University).
- Scriven, M. (2008). The concept of a transdiscipline: and of evaluation as a transdiscipline. *Journal of multidisciplinary evaluation*. 5. 10.56645/jmde.v5i10.161.
- Sheffield, R. (2023). Working with Adaption-Innovation in Leadership Practice: What Works and What's Missing? *Journal of Leadership Studies*.
- Smith, N. L., & Brandon, P. R. (Eds.). (2008). *Fundamental issues in evaluation*. Guilford Press.
- Tubbs, S. L., Jablokow, K. W., & Kirton, M. J. (2012). Addressing the need for problem solving and creativity by integrating adaption-innovation theory with leadership competencies theory. *J. Curr. Res. Glob. Bus*, 15, 1-19.
- Xu, Y., & Tuttle, B. (2012). Adaption-innovation at work: A new measure of problem-solving styles. *Journal of Applied Management Accounting Research*, 10(1), 17.





Teaching Change that Matters: Lessons from a Graduate Course on KAI

By Dr. Jerald Walz, Virginia Tech

Introduction

Dr. Michael Kirton left a tremendous legacy by articulating Adaption-Innovation (A-I) theory and developing the Kirton Adaption-Innovation Inventory (KAI) (Kirton, 1976; Kirton, 2011). This presentation focuses on the lessons learned while teaching graduate students in a formal university course entitled Cognition, Problem-Solving, and Preference for Change (LDRS 5534) and offered for the past several years at Virginia Tech. The purpose of this presentation is to bring to light challenges that students face while learning A-I theory, focusing especially on objections students raise while learning the theory as Kirton (2011) articulated it. The presentation briefly discusses the course structure and its development over the past five years. Then, the presentation identifies challenges to the theory that students often raise. Finally, the presentation offers some possible ways to address these challenges.

This presentation is significant for several reasons. First, those who have been taught by Dr. Kirton are retiring and departing the KAI community. This potentially leaves lifetimes of knowledge about teaching A-I theory and the application of the KAI beyond the access of current practitioners. Second, the needs and interests of students today have shifted from the early days of teaching KAI and continue to shift today. While a discussion not only of what we know and are learning about the theory is important, so too is a discussion of how KAI is taught, especially among current practitioners. Third, teaching a formal university course, with extended time with students gathering around the theory, its implications, and its applications, is significantly different from short-term workshops or seminars. Consultants and professors alike can glean best teaching practices from students or clients with whom they have had longer term relationships. Finally, as it is often the child that leads and teaches the parents how to parent and it is the followers who teach the leader how to lead (Grint, 2010), from observing how our students react to teaching about KAI, we can learn how best to teach KAI to our students today. By doing so, this presentation suggests ways in which practitioners may create change that matters to those who are willing to receive our teaching about KAI.

How it Works

LDRS 5534 Cognition, Problem-Solving, and Preference for Change has been taught at Virginia Tech since 2013. For the past five years, the course has been offered online, asynchronously. The course is designed with a leadership idea in mind: Give the Work Back to the People (Heifetz, Grashow, & Linsky, 2009). Each week, students record a video that demonstrates their understanding of the course content assigned for that week. They address generic questions such as: What were the key points of the readings for the week? What was one new concept you learned? What is one thing you do not agree with or gives you pause? What is one question you would pose for further discussion? Inevitably, in answering these questions, students will provide different responses, thus reviewing most material assigned for the week. After completing and posting their video to a course management website discussion board, the





students review several other students' videos and post written responses. This weekly exercise attempts to mimic the best of in-person discussions while in an online environment.

In addition to weekly videos and responses, students are assigned four short papers, one-thousand words long. These papers provide another opportunity for students to reflect on a course concept they found significant. The papers assign a specific format with three main sections: “*What?*”, “*So, What?*”, and “*Now What?*”. The “*What?*” section requires the student to identify a topic and fully explain it. The “*So, What?*” section requires the student to explain why that topic is important or significant. The “*Now What?*” section requires the student to provide action steps or recommendations that the reader should perform because of understanding the paper topic and its importance.

Currently, the topics of weekly reading cover chapters one through seven of the textbook written by Dr. Kirton (2011). These focus on the individual aspects of A-I theory and the KAI: the origins of A-I theory; organization of cognitive function; describing and measuring adaptation-innovation; style and personality theory; structure and cognition; problems with creativity; and style, level, process, and technique. Additional materials supplement the Kirton text, including articles, podcasts, and videos published by the KAI Foundation, academic journals, and book chapters relevant to creativity and problem solving.

Since I began teaching the course in the fall of 2019, I have made a few changes. At first, I only required one final paper. However, this was unsuccessful in a few ways. Students had no additional opportunities to demonstrate their mastery of course content in a written manner, nor did they have opportunities to improve writing about KAI, and they often erred by misconceiving important elements of A-I theory. Thus, I adjusted to multiple but shorter papers throughout the semester. Also at first, the course included a group project, which required small groups to propose A-I or related topics, find appropriate readings or other media, and provide discussion questions for weekly videos and responses. While this assignment was somewhat successful, it failed to really demonstrate students' understanding or generated topics that were only mildly relevant to the course. The number of groups and weeks that could be covered varied enough with enrollment to provide structural challenges for the course. This has been replaced with four chapters from *Organizational Creativity* (Puccio, Cabra, & Schwagler, 2018) that address creativity and dovetails well and reinforces Kirton's text. Finally, readings from *Learning to Solve Problems* (Jonassen, 2010) has been replaced by readings or videos related to wicked problems (Grint, 2008, 2019; Friedel et al., 2019)

Results

LDRS 5534 has been successful on at least two measures. Over the past five years, the students' average grade for the course has been 89.73% (N = 58). In the same period, the students' average rating of the instructor's effectiveness on a six-point Likert scale has been 5.37/6.00. 87.75% or agreed or strongly agreed that “overall, the instructor's teaching was effective” (N = 49).





At the same time, during the course students raise significant questions about A-I theory or some of the concepts that Dr. Kirton (2011) asserted in *Adaption-Innovation: In the Context of Diversity and Change*. Some of the questions revolve around notions of creativity. One of the more prominent challenges students raise at the beginning of the course concerns innovation and creativity, which they consider synonymous terms. They fail to understand Dr. Kirton's (2011) axiom that all humans are creative and leave out more adaptive individuals as being creative. Similarly, they consider only certain individuals or activities innovative or creative. For example, they begin the course believing artists, actors, musicians, novelists, or engineers producing cutting edge technology are all considered innovative. Schooled by conventional wisdom, it is difficult for students to recognize additional forms of creativity, i.e., adaptive creativity. Other questions revolve around psychological concepts Dr. Kirton emphasized, such as humans not having instinct or that groupthink is a myth. Students challenge both notions with their own assertions that both exist, but often without any serious thought or reasoning as to why they might be correct. A third, and perhaps most important, area where students question A-I theory involves adaption-innovation itself. Students will often assert that one's style can and does evolve or change, either with self-assertion or the context. They struggle to understand that while one's style does not change, one's behavior can. Of course, Kirton called this coping, but even after explaining it, students cling to the notion that one's cognitive style can and does change. While these seem to be the prominent objections, others will be highlighted in the Symposium presentation. These will be gleaned from data submitted by the students, either from video presentations or written assignments.

Advice to Others

Several options are available to the instructor to address the concerns of students, especially objections or challenges that are raised in a seminar or university course. For example, one might simply ignore certain challenges as being irrelevant. However, this fails to educate the student and leaves them ignorant of certain concepts that are important to A-I theory even if not central to the theory itself. Of course, as KAI practitioners our aim is to educate our students so correction of assertions that are not so according to A-I theory is vital, especially in a longer-term course of study whether at university or over a period of sessions with a client. Re-teaching notions students find difficult to grasp or understand is yet another option for the practitioner who is teaching A-I theory.

Another way is to reframe the concepts (Bolman & Deal, 2021) from a different angle or perspective that helps the students understand from what the concept is that Kirton (2011) is attempting to relate. Students come to us with different cognitive resources, so reframing an A-I concept to something related to a concept that students do understand will help them understand and relate to their experience and learn. Take, for example, Kirton's assertion that humans do not have instinct, which many find provocative and raise immediate objections. This concept could be reframed positively toward learning: humans, among all species, have a unique capacity to learn in an extraordinarily complex and sophisticated way from their experiences. Similarly, the notion that one's problem-solving style does not change could be reframed as one's problem-solving style forms early, is recognizable, can be measured in late adolescence,





and remains stable throughout one's life. Indeed, in different publications Kirton said it differently himself. While we would not want to change the meaning of A-I concepts, as practitioners we should find ways of relating these sometimes difficult to grasp notions in ways our clients or students can understand.

This presentation starts an important conversation about improving A-I teaching practice. I share ideas that have been tested in a university course and have been found helpful for increasing student learning. Other practitioners, joining in the conversation and sharing their best teaching practices, will not only enhance understanding about how to present A-I theory, but also increase understanding among those who receive our teaching, whether they be students or clients.

References

Bolman, L. G., & Deal, T. E. (2021). *Reframing organizations: Artistry, choice, and leadership* (7th Ed.). Jossey-Bass.

Friedel, C. R., Spindler, M. K., Barber, J. D., & Carper, K. (2019). Enhancing community capital through application of Adaption-Innovation Theory for addressing wicked problems [Unpublished manuscript]. Agricultural, Leadership, and Community Education Department, Virginia Tech.

Grint, K. (2008). Wicked problems and clumsy solutions: The role of leadership. *Clinical Leader, 1*(2), 11-26.

Grint, K. (2010). *Leadership: A very short introduction*. Oxford University Press.

Grint, K. (2019). *Leadership and wicked problems*[webinar]. International Leadership Association. <https://ilaglobalnetwork.org/webinars/leadership-wicked-problems/>

Heifetz, R. A., Grashow, A., & Linsky, M. (2009). *The practice of adaptive leadership: Tools and tactics for changing your organization and the world*. Harvard Business Press.

Jonassen, D. H. (2010). *Learning to solve problems: A handbook for designing problem-solving learning environments*. Taylor & Francis.

Kirton, M. J. (1976). Adaptors and innovators: A description and measure. *Journal of Applied Psychology, 61*(5), 622-629.

Kirton, M. J. (2011). *Adaption-Innovation: In the context of diversity and change*. Routledge. (Original work published 2003).

Puccio, G., Cabra, J., & Schwagler, N. (2018). *Organizational creativity*. Sage.





Upgrade Critical Thinking Skills with Style

By Anne Collier and Cynthia Shaffer, Arudia

Numerous clients lament the dearth of critical thinking skills. Leaders and managers are frustrated and overwhelmed by having to solve problems or provide “the answer” to colleagues who seem intellectually lazy at best or of low intelligence at worst. They simply don’t have the time to do their work and the work of certain team members, they complain. Clients come to us to improve their team’s critical thinking skills and capacity to solve problems. They also come to us to vent. Query: How much of this perceived problem is really a Problem B?

How it works

Our clients deepen their understanding of their own biases in solving problems by learning the range of cognitive styles through the Kirton Adaption-Innovation Theory. They hone their capacity to recognize and make the most of colleague’s thinking styles and strengths, transforming annoyance into appreciation as they improve culture and inclusion. We explore how to improve critical thinking skills by recognizing different approaches to generating ideas, implementing solutions, and relationship to rules, the environment, and group norms. They also learn how coaching can move their team from seemingly trapped in mediocrity to producing outstanding results.

Our goal is for our clients to:

- Uplevel managerial acumen with tools to engage, empower, and align around change;
- Use both the understanding of cognitive diversity and coaching skills to drive results, increasing feelings of inclusion, thereby improving culture; and
- Develop team members into more effective critical thinkers and problem solvers.

Our first step is to have team members take the KAI. We frame the effectuating of change as the solving of problems. Understanding the differences in problem-solving styles provides the basis for understanding one’s own biases in problem-solving and, we hope, seeing the value in other problem-solving styles. We define critical thinking as the intentional thinking in which the person systematically imposes criteria upon the thinking. New information and considered focus result in the person’s thinking evolving as the person reevaluates the standards imposed, the criteria and standards. The person engages in metacognition, i.e., the examination of one’s own thinking, which involves the very intentional and objective scrutinization of assumptions, perspectives, and bias. The skills necessary to think critically include the ability to distinguish, analyze, judge, and detect bias, to name a few.

Next, we explain that “problem-solving style,” as defined by the renowned late Dr. Michael J. Kirton in his Adaption-Innovation Theory, is a framework for understanding, and thus, upgrading critical thinking skills. “Adaption” is an approach, which is first accepting of the existing construct or way of doing things and using it to develop a solution. “Innovation” describes an approach, which first may seek to alter the construct or way of doing things to develop a solution. People prefer adaption or innovation to varying degrees, with no better





preference. Most fall in the middle of the 128-point scale measuring the degree of preference for adaption or innovation. Armed with an understanding of style, people can augment their capacity to examine their own thinking, assumptions, and approaches. They recognize that different approaches exist, and in fact, pause to seek them out.

In addition to understanding style, other conditions improve critical thinking, some of which can be nurtured. Let's first recognize that critical thinking necessitates being fully present. Otherwise, the person can't think. Ideally, the person *generates for themselves* initiative, engagement, and focus and possesses a strong desire to think critically, wrestle with a problem, and win. The person is energized by learning and sees feedback as valuable. Intense curiosity is a plus.

Whether a person is cultivating their own or colleagues' critical thinking, we encourage them to use the following best practices will uplevel capacity to solve problems. We encourage leaders to consider themselves an executive coach. That is, ask targeted open-ended questions that require critical thinking.

Our advice in effectuating change is to:

- Deal with distractions. Time, focus and being present are essential conditions for critical thinking. Coach yourself and colleagues to develop these practices as healthy work habits. Do not attempt to multi-task.
- Improve objective thinking with inquiry. Logical reasoning is the cornerstone of critical thinking. It requires the thinker to distinguish between facts and opinion, set aside emotion, and uncover assumptions and biases. All of this requires the self-awareness and confidence to question thought patterns. Heighten thoughtful inquiry.
- Know your problem-solving style. Knowing your natural approach to solving problems will help you to see and be open to alternatives. Consider who thinks differently and might be a resource to help you solve problems and broaden your capacity.
- Identify and challenge assumptions through the lens of problem-solving style. Ask yourself and colleagues: "What have you unknowingly assumed can't be changed, must happen, or be included in the approach to resolving the problem?" Next, itemize then discuss whether the assumptions are accurate, inviting opposing views. Do your colleagues agree? If so, why? If not, why not?
- Consider your approach to idea generation. People who are more adaptive generate fewer ideas that are sound and ready implement within the structure in place. People who are more innovative generate many more solutions, many of which require a change in the structure, which may or may not be possible. Need a solution to a problem that is replete with constraints? Ask a more adaptive colleague. Looking for something different or need a solution where the problem itself or the goal are ill-defined? Ask a more





innovative colleague. Remember that most problems are complex, meaning you need both adaptive and innovative ideas. Just thinking this way will improve your critical thinking.

- Recognize diverse implementation approaches. The most adaptive plan every detail before implementing a solution. The most innovative engage in emergent planning. There is a place for both approaches and everything in between on most matters. Recognize and leverage these style differences for the benefit of the range of problems clients present.
- Invite diversity of thought. There are many reasons people are uncomfortable challenging assumptions. Concerns can be that questions come across as inappropriate challenges to a highly respected or intimidating colleague. To prevent this stifled culture from developing, invite questions, curiosity and challenges as a necessary component of providing exceptional service. Further, a person who recognizes when problems lend themselves to certain approaches, can maximize value to the client and workplace satisfaction.

Results/Implications to Date

The notion that AI Theory helps colleagues to better understand each other and predict how they will work together is well established. That said, it is early days in our process to fully understand the impact of our critical-thinking-skills effect on change, teamwork, and a team's results. We continue to believe that teaching leaders and managers to “coach like an executive coach” puts them in the best frame of mind to create a culture in which all problem-solving styles are welcome and all colleagues are meaningfully involved in the driving results. By the recording of this session, we expect to have feedback from one or more clients about how KAI helped them to navigate significant structural change.

Future Plans/Advice to Others

We will continue to hone our materials and programming to make KAI and A-I Theory applicable and practical to solving clients' many challenges. Don't be afraid to experiment and partner with clients. The best programs are co-created.

References

- Ho, Y.-R., Chen, B.-Y., & Li, C.-M. (2023). Thinking more wisely: Using the socratic method to develop critical thinking skills amongst healthcare students. *BMC Medical Education*, 23(1). <https://doi.org/10.1186/s12909-023-04134-2>
- Kirton, M. J. (2003). *Adaption-Innovation: In the context of diversity and change*. Routledge Taylor & Francis Group.
- Monteiro, S., Sherbino, J., Sibbald, M., & Norman, G. (2019). Critical thinking, biases and dual processing: The enduring myth of Generalisable Skills. *Medical Education*, 54(1), 66–73. <https://doi.org/10.1111/medu.13872>





- Orhan, A., & Çeviker Ay, Ş. (2022). How to teach critical thinking: An experimental study with three different approaches. *Learning Environments Research*, 26(1), 199–217.
<https://doi.org/10.1007/s10984-022-09413-1>
- Persky, A. M., Medina, M. S., & Castleberry, A. N. (2019). Developing critical thinking skills in pharmacy students. *American Journal of Pharmaceutical Education*, 83(2), 161–170.
<https://doi.org/10.5688/ajpe7033>
- Shirazi, F., & Heidari, S. (2019). The relationship between Critical Thinking Skills and learning styles and academic achievement of nursing students. *Journal of Nursing Research*, 27(4).
<https://doi.org/10.1097/jnr.0000000000000307>





Understanding KAI Within the Context of the Creative Arts

By Dr. Samantha Giridhar, University of Hawai'i - West O'ahu

Existing research with the KAI has focused on its use as a team-building tool for stronger connections within organizations of all sizes (Kirton, 1980). As KAI practitioners, this context for application drives much of our personal practice, and consistently reemphasizes how powerful and effective the KAI can be. While there has been a small amount of research examining problem-solving style in relation to creativity (Brinkman, 1999; Kirton, 1978), there is little current work investigating how problem-solving style and KAI scores may impact approaches to the creative process in the arts. As a newly accredited KAI practitioner and avid dancer, I have found myself asking the following questions:

- Does my approach to creating dances differ from others with different problem-solving styles?
- When examining approaches to choreography (which is perceived as structured) and improvisation (which is perceived as less structured), how might understanding problem-solving style be impactful?
- What applications could KAI have within the field of dance?

Questions such as these have led me to begin a foray into further graduate studies in dance through the University of Hawaii. Through a preliminary review of the literature, I have determined that dancers adopt a variety of different approaches to choreography and improvisation. While some dancers describe the two processes as separate entities (Roche & Burrige, 2022; Peters, 2017), others describe them as blended with each informing the other (Welch, 2022; Kloppenberg, 2010). Approaches also vary in terms of structure, with some identifying specific elements or steps (Humphrey, 1959) and others recommending a more reactive or spontaneous approach (Blom & Chaplin, 1988). Since it is known that different scores along the KAI continuum relate to preferences for structure, I am curious to see whether dancers describe their approaches to creating dance in ways that would be expected in relation to their KAI scores.

While I am still in the preliminary stages of my research, I intend to focus my investigation towards a mixed-methods study in which I collect KAI scores from dancers across different genres. Interviews and discourse analysis would be employed to identify major themes and ideas related to the impact of problem-solving style on approaches to choreography and improvisation. From this roundtable discussion, I hope to gain insight and feedback from my fellow practitioners about how the KAI might be used impactfully within the arts. With the theme of this year's symposium being "Change that Matters," my hope is to not only contribute to the ever-expanding body of scholarly discourse, but to re-introduce a focus on KAI and its possible applications to the arts. As with many fields, collaboration within the arts is frequent – whether between dancers performing as a group or the production team putting on an opera at a theater. A better integration of KAI theory, and how it may impact the creative process can not only improve collaborations within the arts but provide individual artists with the language to express how they may work and create more effectively.





References

- Blom, L. A. & Chaplin, T. L. (1988). *The moment of movement: Dance improvisation*. University of Pittsburgh Press.
- Brinkman, D. J. (1999). Problem finding, creativity style and the musical compositions of high school students. *Journal of Creative Behavior*, 33(1), 62-68.
- Humphrey, D. (1959). *The art of making dances*. Grove Press, Inc.
- Kirton, M. J. (1980). Adaptors and innovators in organizations. *Human Relations*, 3, 213-224.
- Kirton, M. J. (1978). Have adaptors and innovators equal levels of creativity? *Psychological Reports*, 42, 695-698.
- Kloppenber, A. (2010). Improvisation in process: “Post-control” choreography. *Dance Chronicle*, 33, 180-207.
- Peters, G. (2017). *Improvising improvisation: From out of philosophy, music, dance, and literature*. University of Chicago Press.
- Roche, J. & Burridge, S. (2022). *Choreography: The basics*. Taylor and Francis.
- Welch, S. (2022). *Choreography as embodied critical inquiry: Embodied cognition and creative movement*. Palgrave Macmillan.



Bridging Research and Practice: Working Smarter, Not Harder

By Dr. Sarah Bush, University of Florida

While Kirton's (1976) adaption-innovation (KAI) theory has been around for over 45 years and a multitude of research has been produced, there are still room for growth and advancement of the theory. With nearly 350 published works and over 100 theses and dissertations produced using the theory, strides have been made in research. However, over the last decade, only 25 journal articles have been published with all of the articles from 2023 being philosophical rather than including empirical data. While these articles still make an advancement in the field, much of what we know about KAI theory is still anecdotal with many research questions remaining for scholars and practitioners alike.

Pressing Questions and Areas for Consideration

In discussions with colleagues and other practitioners, similar questions arise when considering KAI theory and how it is being used in scholarship and practice. For example, some questions include:

- How successful are teams following KAI training?
- How does knowing about your KAI score influence how you navigate work with teams?
- How do the experiences of AC²s and AC³s differ on teams?
- Why is there a slight difference in gender means?
- How does KAI and organizational fit influence turnover/burnout rates?
- What are the stress levels related to coping? How much is too much coping?
- How do learned skills related to coping and navigating differences in KAI skills influence teams?

While some studies with small sample sizes exist that begin to shed light on these topics and Kirton (2011) provides some theoretical insights into these questions, more research with larger samples is needed to provide empirical evidence.

To provide empirical evidence, we need data. While many of our accredited KAI practitioners in academia have an interest in conducting KAI-related research, they often share a lack of access to groups outside of the university. Other practitioners may be in a different position to assist in data collection with a more diverse clientele. Considering opportunities to partner and collaborate to advance research related to KAI can advance our understanding of the theory and increase the quality of practice.

Future Plans/Advice to Others

We need to begin having conversations around the most pressing questions related to KAI and create partnerships for data collection. KAI researchers should work with practitioners to establish opportunities for collaboration related to the needs of practitioners. Practitioners should consider opportunities to collect and share their data related to KAI to continue advancing scholarship.





References

Kirton, M.J. (1976). Adaptors and innovators: A description and measure. *Journal of Applied Psychology*, 61(5), 622–629. <https://doi.org/10.1037/0021-9010.61.5.622>

Kirton, M. J. (2011). *Adaption and Innovation: In the context of diversity and change*. Routledge (Original work published 2003). <https://doi.org/10.4324/9780203695005>

