Canadian Journal of Administrative Sciences / Revue Canadienne des Sciences de l'Administration

WILEY

RESEARCH ARTICLE OPEN ACCESS

Appreciative Inquiry in the Workplace: A Review of (Quasi) Experimental Studies

Marine Miglianico[1,2] | Philippe Dubreuil[1] | Paule Miquelon[1] | Arnold B. Bakker[3,4] | Charles Martin-Krumm[2,5,6]

[1]Université du Québec à Trois-Rivières, Trois-Rivieres, Quebec, Canada | [2]APEMAC—EA 4360, Université de Lorraine, Metz, France | [3]Erasmus University Rotterdam, Rotterdam, the Netherlands | [4]University of Johannesburg, Johannesburg, South Africa | [5]Laboratoire VCR, École de Psychologues Praticiens de l'Institut Catholique de Paris - Équipe d'accueil Religion, culture et société, Paris, France | [6]IRBA, Unité de NeuroPhysiologie du Stress, Brétigny, France

Correspondence: Marine Miglianico (marine.miglianico@gmail.com)

Received: 21 September 2023 | **Revised:** 4 November 2025 | **Accepted:** 2 January 2026

Keywords: appreciative inquiry | experimental design | intervention | longitudinal design | review | work

ABSTRACT

The objective of this study is to review the literature of (quasi) experimental studies on appreciative inquiry (AI) in the workplace. We present an overview of the AI approach, a summary of four main purported AI outcomes in organizations (generativity, engagement and performance, team-oriented behaviours, and virtuousness and flourishing), and a literature review of (quasi) experimental studies on AI in the workplace. Results of (quasi) experimental studies suggest that AI can positively influence team-oriented behaviours and performance, but may have no specific effect on generativity. Practical implications as well as avenues for future research are discussed.

1 | Introduction

In recent decades, the appreciative inquiry (AI) approach has gained popularity in the field of organizational development. Numerous books, chapters and practitioner articles have been published and the enthusiasm for this approach to organizational change seems to be growing (Verleysen et al. 2014). Some experts suggest that AI is revolutionizing the discipline (Quinn 2000). However, since the seminal article on AI published by D. L. Cooperrider and Srivastva (1987), very few quantitative studies have documented the impact of AI interventions (G. R. Bushe and Kassam 2005). Below, the appreciative inquiry approach and its main principles will be described. Then, a summary of current knowledge regarding its application in the workplace will be presented, which is mostly based on qualitative and case study research. Finally, a review of the experimental design studies available will be conducted, and a proposal of a substantial research agenda based on the needs identified will be presented.

AI is an organizational development (OD) method based on the assumption that asking questions about strengths, successes and values is transformational by nature (D. D. Whitney and Trosten-Bloom 2010). The methodology focuses on developing positive potential by raising awareness about a system's strengths, dreams and capacities (D. L. Cooperrider and McQuaid 2012). In organizational sciences, a system can be defined as an 'adaptive entity that survives by meeting environmental demands (consumers, competition, economy, governmental policies, etc.) through the development and maintenance of subsystems ultimately designed to manage behaviour. Thus, organizations are behavioural systems that encompass complex patterns of behavioural interactions among their members and the environment' (Ludwig and Houmanfar 2010, 85). The AI model of change is an adjunct solution to traditional problem-solving, focusing on the root causes of success rather than of failures (Åslund et al. 2011).

In this model of change, inquiry is a key point (D. D. Whitney and Trosten-Bloom 2010). The art of questioning—formulating positive questions—is primordial. As human systems tend to integrate and evolve in the direction of what they investigate, raising awareness about existing good practices tends to amplify

their use and dissemination. By doing so, AI taps into the natural capacity for cooperation and change existing in each social system (Barrett and Fry 2005). Individuals generally have a natural tendency to focus more on negative events or information (Rozin and Royzman 2001). Shifting focus from the negatives to the positives allows the liberation of individual and collective aspirations, leading to greater generation of ideas and more transformation (e.g., cultural change) than traditional problem-solving methods (G. R. Bushe 2007).

1.1 | AI Interventions

AI is an approach rather than a single methodology. Each application of AI is probably different (D. L. Cooperrider and Whitney 2001). Intervention models range from a rapid and informal inquiry (such as a conversation with a colleague) to an organization-wide process involving all stakeholders in the firm. D. D. Whitney and Trosten-Bloom (2010) describe the AI model as loosely structured; every AI intervention is custom-made to meet the organization's particular challenges. They discuss the most frequently used frameworks, including the traditional 5D cycle, but also mass-mobilized inquiry, the positive change network, and AI learning teams. The 5D cycle is the most widely used approach (D. L. Cooperrider and Whitney 2001), and is the focus of this article. It is the main intervention model of AI (G. R. Bushe and Kassam 2005; D. L. Cooperrider and Whitney 2001) and elaborates the principles for the practice described in the seminal article of D. L. Cooperrider and Srivastva (1987).

1.2 | The 5D Cycle

The main intervention model associated with AI is the *5D cycle*, defined as a process promoting positive change. It can be repeated several times to perpetuate or to deepen the initiated change (D. L. Cooperrider and Srivastva 1987). A more detailed description of the process follows.

The first phase of the 5D cycle (see Figure 1) is the *definition*. At this stage, decision-makers are invited to define a strategic positive orientation, called the affirmative topic choice. This first step is crucial, as it defines the topic on which participants will focus their attention. It must be a goal highly desired by the organization, including hopes and dreams for its future (D. Whitney 1998). Framing the focus of inquiry is the most important factor for ensuring change, as the affirmative topic choice becomes the strategic agenda for learning and building new knowledge and actions (Bright et al. 2006).

The second phase is the *discovery*. Participants interview each other in pairs with questions based on the affirmative topic choice, thus creating a positive relational dynamic. This phase is about the quest for positive stories. The best of *what is* (strengths, resources and success stories of the system) is identified through a rigorous exploration to raise awareness of good practices. It is rooted in the idea that not only do people learn from their mistakes, people also grow from our positive experiences (D. Whitney 1998). An organizational shift occurs, from what is not working to what works and will possibly work in the future.

After focusing on the positive core (D. L. Cooperrider and Whitney 2001), individuals explore their wishes through the *dream* phase. The system's potential (strengths and resources) is linked to a clear result-oriented vision. At this stage, the positive future is connected to questioning about a higher purpose, such as, 'What is the world calling us to become?' In the dream phase, a group of people engage in 'thinking big, thinking out of the box' (D. Whitney 1998, 317). People can describe their hopes and dreams for the organization, connecting to a higher purpose.

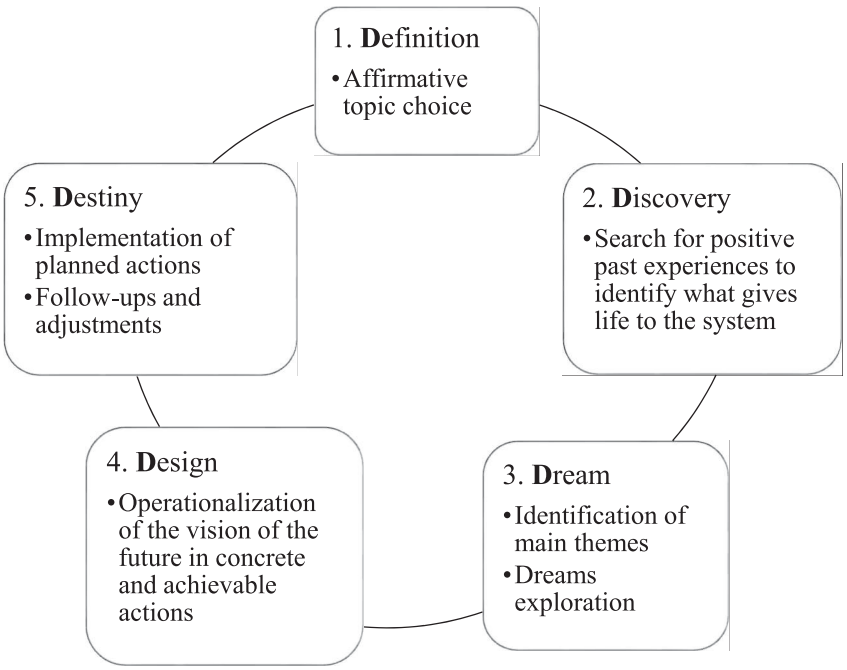

FIGURE 1 | The 5D AI cycle (adapted from D. L. Cooperrider and Whitney 2001; Pill 2016).

This inspiring vision leads to the *design* phase, the decision to co-construct a framework for change. To operationalize the dream previously established, provocative propositions of the ideal organization are made and pragmatic actions are envisaged. For instance, the company is an expert in process management. In this affirmation, the positive core is magnified into actions people can feel able to attain. From there, concrete actions are identified, structuring how the change will be implemented. This process is a co-creation by all stakeholders (D. Whitney 1998) that enables employees to realign themselves to a changing business environment.

Finally, in the *destiny* phase, concrete actions are carried out. This is also an opportunity to strengthen the positive momentum generated in previous phases by highlighting personal and organizational commitments. Although change occurs at every step of the process, the destiny phase includes more specific action planning and delivery (D. Whitney 1998). Small groups can work on collaborative efforts to deploy positive organizational initiatives.

In summary, AI is a flexible model of organizational change based on five basic principles. Although other forms exist, its main structure is the 5D cycle.

1.3 | Outcomes of AI Interventions

Since 1987, AI has been the subject of hundreds of studies. To date, the vast majority of AI research attesting to its success consists of case studies (e.g., Finegold et al. 2002; Gonzales and Leroy 2011), which are mostly qualitative (Yaeger et al. 2005) and emphasize outcomes at a collective level (Barrett and Fry 2005; G. R. Bushe and Kassam 2005; D. L. Cooperrider 2012; Fry et al. 2002). In essence, AI outcomes can be summarized and classified under four main categories: (a) generativity, (b) engagement and performance, (c) team-oriented behaviours and (d) virtuousness and flourishing.

1.3.1 | Generativity

Generativity is defined as the emergence of new ideas that motivate new actions (G. R. Bushe and Paranjpey 2015). Studies seem to indicate that AI is generative through inquiry, in its quest for new ideas, images and models that positively alter a collective future (G. R. Bushe 2007). In their report of case studies, Finegold et al. (2002) suggest that the creation of new and exciting aspirations seems to occur through individual imagination. A shared vision of the future is fostered through collaborative insights (Ruhe et al. 2011; Trajkovski et al. 2015). Participants are more hopeful of the possibilities, feel more positive emotions (Barrett and Fry 2005) and limit negative statements (Finegold et al. 2002; Gonzales and Leroy 2011). Feeling empowered by the new positive orientation, people then tend to bridge the ideas-to-action gap (Egan and Lancaster 2005; Finegold et al. 2002). AI thus differs from inceptive OD approaches, as it focuses on generativity rather than problem-solving (G. R. Bushe 2007).

1.3.2 | Engagement and Performance

With generativity as a focal point, AI practitioners have noted that scepticism may be transformed into engagement and performance (Baker et al. 2009; Bright et al. 2006; D. L. Cooperrider and McQuaid 2012; Trajkovski et al. 2013). Engagement is defined as a positive, fulfilling, affective and motivational state of well-being at work, characterized by vigour, dedication and absorption (Bakker et al. 2008). Performance, in turn, is defined by the duality of task and contextual performance (Borman and Motowidlo 1993). Task performance relates to transforming raw materials into the goods and services which are specific to the job. It represents the core technical skills (Borman and Motowidlo 1993). Contextual performance concerns aspects of an individual's performance which maintain and enhance the organization's social network and the psychological climate that supports technical tasks (Borman and Motowidlo 1993).

AI tends to promote engagement through the democratic creation of a positive vision and positive actions for the future (Baker et al. 2009). Results of case studies could demonstrate the impact of AI on focus and effectiveness (Bright et al. 2006; D. L. Cooperrider and McQuaid 2012), catalysing learning (Ridley-Duff and Duncan 2015; Trajkovski et al. 2013), responsibility (Conkright 2011; Finegold et al. 2002), initiatives (D. L. Cooperrider and McQuaid 2012) and commitment (Ruhe et al. 2011).

Similarly, studies indicate that AI can foster task performance through a sense of responsibility, autonomy and increased decision-making (Conkright 2011; Powley et al. 2004). It also promotes contextual performance by including all stakeholders, cultivating positive relationships and fostering conversational convergence in the discovery, dream and design phases (Baker et al. 2009; D. L. Cooperrider and McQuaid 2012; Mantel and Ludema 2004).

1.3.3 | Team-Oriented Behaviours

Team-oriented behaviours are defined as cooperative behaviours in which group members reach out to help and provide assistance in promoting each other's success (Watson et al. 1998). Numerous scholars have conducted qualitative and case studies to tend to document the development of collaborative efforts and cooperation with AI interventions (Baker et al. 2009; Egan and Lancaster 2005; Falk 2014; Trajkovski et al. 2016), notably through partnering (Finegold et al. 2002; Trajkovski et al. 2015) and inclusion (D. L. Cooperrider and McQuaid 2012). AI is generally associated with a feeling of unity that may enhance participation, team-oriented behaviours and team effectiveness (Egan and Lancaster 2005; Falk 2014; Gonzales and Leroy 2011; Powley et al. 2004). Therefore, AI seems to foster respectful interactions (Ruhe et al. 2011). It tends to promotes conversational convergence (Egan and Lancaster 2005; Mantel and Ludema 2004). Results of interviews conducted by Baker et al. (2009) reveal a rapid increase in intimacy leading to feelings of group identity. Courageous statements may also be more frequent. For example, many participants provided insights into their personal commitment, concerns and aspirations for a better future, and

expressed ideas sometimes in conflict with current management strategies. As AI aims to create dialogue as a team strategy, participants may be more open to giving and receiving positive feedback (Clarke and Thornton 2014; Stefaniak 2007). AI interventions seem to foster positive relationships among participants by developing constructive feelings, such as honesty and trust (Baker et al. 2009; D. L. Cooperrider and McQuaid 2012; Watkins et al. 2016), respect (Shendell-Falik et al. 2007), reliability and empathy (D. L. Cooperrider and McQuaid 2012). Creating connections between people as well as, within the individual, to their own best self, seems to be central to AI.

1.3.4 | Virtuousness and Flourishing

Virtuousness is defined as 'a constellation of virtues in the aggregate' (Cameron and Winn 2012, 232). It is manifested by a set of people and is often displayed with a collective expression of moral excellence (Cameron and Winn 2012). It is anchored in organizational processes and practices, and is likely to be associated with organization-level outcomes. Flourishing, in turn, is defined as high levels of well-being (Diener et al. 2010; Hone et al. 2014) and of mental health that include positive feelings and positive functioning in life (Keyes 2002).

Qualitative studies show that AI tends to promote virtuousness and flourishing through its focus on best human practices and communication in a group context (Baker et al. 2009; Clarke and Thornton 2014; Stefaniak 2007). Through the AI process, a shift in attitude and language occurs, and a generalized positive attitude is manifested (Clarke and Thornton 2014; Finegold et al. 2002). D. Cooperrider and Barrett (2002) refer to the experience as humbling, one that heightens participants' awareness and inspiration to aim for good practices. In a case study, Berrisford (2005) observed that participants may connect more to their emotions, with the feeling that their opinions matter. Moreover, participants are likely to experience increased satisfaction of their need for competence, leading to higher levels of resilience, self-efficacy, hope and optimism (Verleysen et al. 2015). Similarly, Gonzales and Leroy (2011) observed a greater level of confidence and satisfaction, whereas D. L. Cooperrider and McQuaid (2012) emphasized the resulting feelings of pride.

1.4 | General Overview and Research Objective

As shown above, the scientific literature on AI includes many case and qualitative studies. Together, this body of research documents encouraging results from the use of AI that need to be further validated by experimental research designs in order to confirm the effects of such interventions and better understand the contingencies involved (G. R. Bushe 2012; D. L. Cooperrider and McQuaid 2012; Verleysen et al. 2015). However, as AI forms and structures tend to vary, (quasi) experimental and quantitative research seems to be rare as they are challenging to conduct (Verleysen et al. 2015). It is therefore legitimate to wonder whether AI is effective, and if so, to what extent? Can the effects be measured quantitatively and objectively? Could the results obtained be attributed to a phenomenon such as a working alliance or a Hawthorne effect? To answer these questions about AI effectiveness, it is necessary to review the existing evidence provided by experimental studies on the subject and shed a critical light on their results. The objective of the present research is thus to conduct a literature review of the scientific literature regarding workplace AI intervention studies that *specifically* used (quasi) experimental designs and analyse the findings in light of the available case-studies knowledge on AI.

2 | Method

To meet this objective, a literature review of the relevant scientific literature was conducted using a systematic review. Peer-reviewed articles were searched through PsychINFO, Science Direct, Business Source and Google Scholar databases. Keywords searched included *appreciative inquiry, well-being, engagement, performance, organization, job and workplace*. The initial search aiming to question if AI interventions are more effective than other interventions on employees' wellbeing, engagement and performance targeted articles that met the following inclusion criteria: (a) published in a peer-reviewed journal; (b) written in English and (c) published after 1987, when appreciative inquiry methodology was established. This preliminary search identified 399 articles using PsychINFO, Science Direct and Business Source, as well as 310 articles using the Google Scholar database. In a second step, the following criteria was applied in order to retain only the articles that were relevant to our objective: (a) studies must use an experimental or quasi-experimental design, (b) studies must be based on the 5D cycle and (c) studies must investigate the application of AI in an organizational setting.

The list of references of the selected articles was consulted for completeness. Each distinct article whose title was deemed relevant was verified through reading the abstract ($N = 682$). Amongst those articles, 12 met our inclusion and exclusion criteria (670 were excluded). In the final inclusion stage, authors reached unanimous agreement regarding the quality of the studies selected and their compliance with the inclusion criteria through reading the article full text. This stage led to the exclusion of nine articles that showed inappropriate methodological quality, such as a meta-case analysis (4); a study conducted in an organizational behaviour course instead of an organizational setting (1); or because they were focusing on appreciative leadership (2), appreciative values (1) or appreciative behaviours (1), rather than the 5D cycle of AI. Finally, three studies were included. Figure 2 shows the process of selecting studies.

3 | Results

Results from our systematic review revealed a total of three studies that met the selection criteria, respectively, those conducted by Jones (1998), Peelle III (2006), and G. R. Bushe and Paranjpey (2015). As the number of studies found is infinitesimally small, no general conclusions can be drawn. In the following section, each study's objectives, protocols and results are detailed, in order of publication from earliest to most recent. The three articles are listed in the table below (see Table 1).

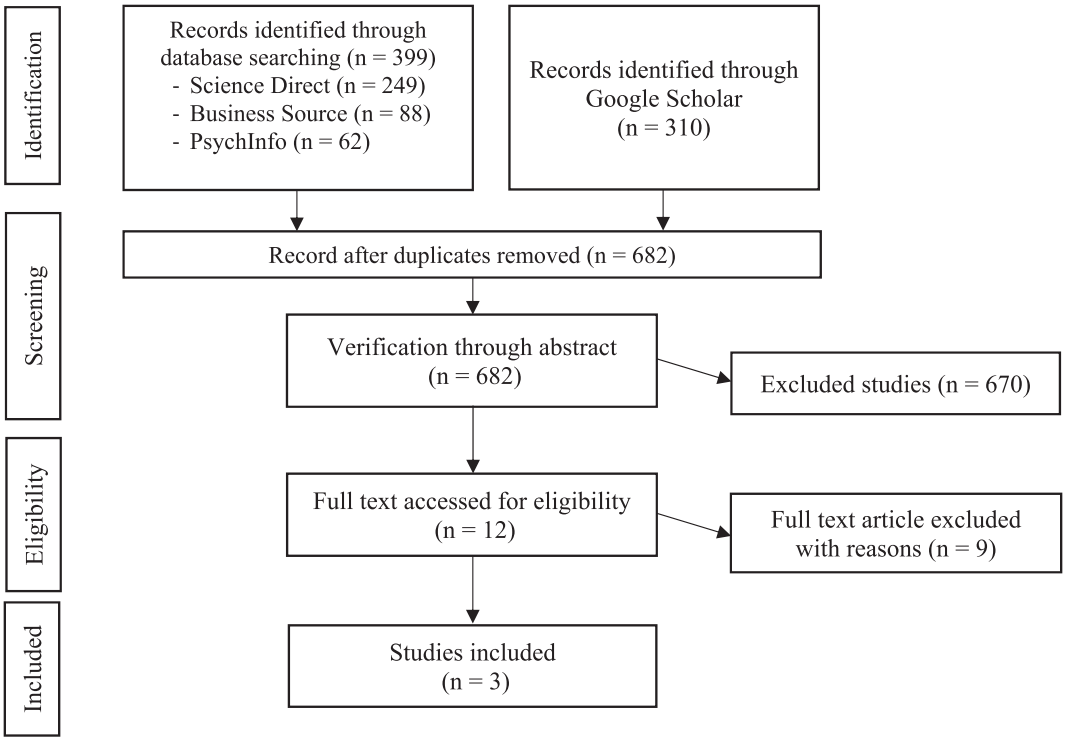

FIGURE 2 | Studies selection process (PRISMA flow diagram).

TABLE 1 | Results of the systematic review of the outcomes of AI interventions in organizational settings.

Reference	Sample	Variables	Results
1. Jones (1998)	330 Management personnel from 94 fast-food american restaurants of a chain located in a metropolitan area	Employee retention	AI intervention is associated with a higher retention rate than the problem-solving group
2. Peelle III (2006)	36 Employees of a small north american manufacturing organization	Team efficacy and group identification	AI intervention is associated with a higher level of post-task group potency and higher level of group identification
3. G. R. Bushe and Paranjpey (2015)	76 Employees of a midwest american transit organization of 10,000 employees	Generativity of ideas	AI intervention does not seem to be associated with a greater number of ideas generated than other conditions

3.1 | Article 1: Jones (1998)

Jones (1998) tested the influence of AI and a problem-solving condition on employee retention. Although this study provides interesting results, it should be considered with great circumspection, given that the method, analyses and results are not completely clear since essential information is missing. Management personnel ($N = 330$) from 94 fast-food restaurants of a chain located in a metropolitan area were randomly divided into three groups, each with different experimental conditions: (1) AI intervention ($N = 116$), (2) problem-solving activity ($N = 112$) and (3) control group ($N = 102$).

The AI intervention consisted of a series of planning and logistics meetings with district and general managers, followed by AI roundtable workshops focusing on employee retention with the rest of the managers in the different locations. The roundtable workshops each lasted three and a half days and the objectives were to

> reaffirm affirmative topic choices and create a common base of data for all participants; state provocative propositions about the life-giving properties in the firm; consensus validation of propositions using force-field analysis and debate; state realizable provocative propositions; state personal commitments and plan next steps for acting on provocative propositions.
>
> (Jones 1998, 74)

The whole process spanned two and a half years, included follow-up meetings and encompassed the five steps of the 5D cycle.

The problem-solving condition consisted of 'normal problem-solving approaches toward retention', whereas the control group 'simply went on with business as usual without any interventions targeted at retention' (Jones 1998, 72). No additional information was provided regarding these specific conditions.

During the two and a half years, data was collected using the following methods: turnover tracking (i.e., voluntary turnover), surveys (i.e., demographic, retention and turnover information), historical documents (i.e., company document and unpublished papers), and observations (i.e., committee and departmental meetings, author journals, etc.). Again, no further information was provided regarding the precise methods and instruments used by the researchers.

Results of the study indicate that the AI group presented a higher retention rate than the problem-solving group (30% higher) and the control group (32% higher) at time 2 (two and a half years after the initial roundtable workshops). Additionally, according to the authors, the survey results indicated that the AI group members were less inclined to leave the organization than those in the problem-solving and control groups. No information was available regarding the analyses and results that led to these conclusions. However, a calculation of the estimated savings represented by the reduction in turnover was provided, which suggests that the AI intervention generated savings of $103,320. This study thus suggests that AI can have a positive impact on employee retention. Nevertheless, such a conclusion must be interpreted with caution since many additional details would be required in order to adequately assess the study's protocol, results and conclusions.

3.2 | Article 2: Peelle (2006)

Peelle III (2006) compared the effects of AI and creative problem solving (CPS) processes on team efficacy and group identification. Six cross-functional teams, each comprised of six randomly assigned participants ($n = 36$), completed a specific task. More precisely, the team task involved developing a program or initiative that would 'enhance the work environment, increase desirability of the organization for owners, and generate benefits for customers' (Peelle III 2006, 454). Three teams were assigned to an AI intervention, and three teams to a CPS intervention.

The AI intervention included most of the 5D cycle. The definition and discovery phases encompassed questions on what team members valued most about themselves, their personal best practices, and existing organizational practices that bring out the best in employees, customers and owners. The dream phase then consisted of defining the future by projecting those exemplary practices and creating 'an image of an organization in which bringing out the best in employees, customers, and owners was the norm' (Peelle III 2006, 455). Provocative propositions were then crafted by the team during the design phase.

The CPS intervention started by imagining an idealized future (i.e., 'Wouldn't it be nice if...?'). Teams investigated the gaps between the current organizational reality and their image of a positive future, selected specific gaps, and reframed them in the form of positive, actionable and open-ended problem statements. After defining the problem, the team developed solutions and the best program was selected.

Completing the task successfully required teams to identify a program or initiative that would benefit employees, customers and the firm. The team's success was evaluated by a task success worksheet. Team efficacy was evaluated through the group potency instrument (Guzzo et al. 1993), which was completed by team members at pre and post intervention. Group identification was measured through Arrow–Carini Group Identification (Henry et al. 1999) at the midpoint of the intervention.

Results indicate that both AI participants and CPS participants showed a significant increase in group potency between the beginning (GP0) and the completion (GP1) of the task (AI: $M_{GP0} = 3.29$, $M_{GP1} = 3.68$; $t_{(17)} = -3.39$, $p = 0.002$; CPS: $M_{GP0} = 2.97$, $M_{GP1} = 3.35$; $t_{(17)} = -2.61$, $p = 0.009$). However, AI participants reported a higher level of post-task group potency ($M = 3.68$) than CPS participants ($M = 3.35$, $F_{(1, 33)} = 5.11$, $p = 0.03$). Similarly, AI participants also reported higher group identification ($M = 3.28$) than CPS participants ($M = 2.97$; $t_{(34)} = 2.00$, $p = 0.03$). Therefore, it seems that, post-intervention, participants of teams using AI reported increases in group potency similar to those of teams using creative problem-solving interventions. However, midway through the intervention, AI teams seemed to identify with their groups to a significantly greater extent than members of groups with creative problem-solving tasks. In conclusion, despite a small sample size ($n = 36$), these findings nevertheless suggest that AI may promote group potency (or collective efficacy) and social identification with the group.

3.3 | Article 3: Bushe and Paranjpey (2015)

G. R. Bushe and Paranjpey (2015) tested the assumption that AI is a more powerful generative form of inquiry than traditional problem-solving. More specifically, these researchers compared a classic AI discovery phase with a traditional problem-solving process and a 'synergenesis' process, a technique developed by G. R. Bushe (1995, 2007) to amplify the generativity of the discovery phase of AI.

Employees of a transit organization ($N = 76$) volunteered to generate new ideas on an employee recognition program. Participants were categorized by job type and assigned in roughly equal numbers to three different conditions: (1) problem-solving process ($N = 23$), (2) AI discovery process ($N = 27$) and (3) synergenesis process ($N = 26$). Each condition lasted between two and three hours and involved two groups of approximately 12 participants.

The problem-solving groups were first asked to form pairs and reflect on problems in employee recognition programs (in general, and then more specifically in their own organization). They were then asked to improve and find potential solutions to the identified problems. In the last step, they were requested to regroup in teams of five to seven participants and brainstorm on ways to implement those solutions in the organization.

The AI discovery groups were first asked to form pairs and reflect on their career history to identify and describe an occasion when they were recognized or appreciated for their work and felt great satisfaction for this. Participants were encouraged to be genuinely curious about their partner's experiences and ask further questions, but not provide opinions about their stories. Once the interviews were over, participants were asked

to regroup in teams of five to seven persons to talk about what their stories revealed regarding employee recognition at its best, discuss the common themes and patterns within these stories and brainstorm on the 'root causes of success' that made them possible.

The synergenesis groups used a method similar to the AI discovery phase. In this process, however, participants not only listened to each other's peak stories but were also asked to identify those that most inspired them and to write them up in the first person. Participants were then asked to regroup in teams of five to seven persons and follow the synergenesis process of reading a story, brainstorming ideas on best recognition practices and then reading other stories until no more new ideas were produced.

Generativity was assessed by a panel of expert raters who had to review each idea provided by each group. This panel was comprised of employees representing a wide variety of departments, who had at least 5 years of experience in the organization and who were blind to the experiment. Three questions, designed on a five-point Likert-type scale, assessed specific dimensions: (1) novelty (i.e., 'Is this idea novel, which has not been done before in this organization?'), (2) interest (i.e., 'Does this idea evoke interest and compel you to implement it? ') and (3) practicality (i.e., 'Can this idea be implemented practically in the organization? ').

A one-way analysis of variance was used to test differences between groups. Results showed that the average number of ideas generated was not significantly different for the three conditions (56 for the AI group; 51 for the synergenesis group; 50 in the problem-solving group). However, ideas from the synergenesis condition were rated as significantly more interesting ($F_{2,154} = 7.592$, $p = 0.01$) and practical ($F_{2,154} = 10.074$, $p = 0.00$) than AI and problem-solving conditions. No other statistically significant differences were found.

Thus, AI does not seem to generate a greater number of ideas than a problem-solving or a synergenesis protocol. However, emphasizing the synergenesis in the AI process can improve the quality—in terms of interest and practicality—of the ideas generated.

4 | Discussion

Responding to calls for more quantitative studies (G. R. Bushe 2012; G. R. Bushe and Kassam 2005; Verleysen et al. 2015), three investigations that applied an AI intervention in the workplace using a (quasi) experimental design have been summarized. These studies suggest that AI interventions can positively influence team-oriented behaviours and effectively promote conditions related to work performance, although they may have no specific effect on generativity.

4.1 | Team Orientation

The (quasi) experimental studies reviewed do support previous findings indicating that AI groups tend to have a higher level of group identification (see Baker et al. 2009). This result concurs with the widespread idea that AI begets a paradigm shift from an individual to a relational view, through inclusion (D. L. Cooperrider and McQuaid 2012), intimacy (Baker et al. 2009) and unity (Egan and Lancaster 2005; Falk 2014; Powley et al. 2004). With its process of co-creation—including the exploration of personal peak experiences, of dreams and alliances—AI builds bridges across boundaries (D. D. Whitney and Trosten-Bloom 2010). It tunes into patterns of relationship and collaboration, creating a collective feeling of belonging (Baker et al. 2009). Although team-oriented and self-oriented behaviours are not strictly mutually exclusive, groups tend to perform better if individuals are team-oriented rather than self-oriented (Smith and Berg 1987).

Furthermore, the reviewed studies reinforce the idea that AI interventions seem to strengthen a 'can do' climate, by reinforcing hope and reliance among group members, as well as a feeling of connection to the organization's vision (Jones 1998). This fits with the idea that AI fosters a safety climate by encouraging positive and nonthreatening communication where people are free to be heard in regard to their strengths, dreams and successes (Mantel and Ludema 2004; Ruhe et al. 2011). AI is well known for rallying group members around an inspiring vision (D. L. Cooperrider and Godwin 2015; Gonzales and Leroy 2011). The process invites participants to be courageous in challenging the status quo, appealing to the group to reunite around a positive common goal (Powley et al. 2004). In short, AI participants might be more willing to invest in their group, leading to positive individual and organizational outcomes such as trust or coordination (Baker et al. 2009; Watkins et al. 2016).

4.2 | Performance

Regarding performance, one (quasi) experimental study show that AI interventions seem to enable conditions that are closely related to performance. Work conducted by Peelle III (2006) indicates that groups using AI have a higher group potency than those using traditional approaches. Also referred to as 'collective efficacy', group potency is defined as a collective belief that the team has the skills and competence needed to complete its tasks (Guzzo et al. 1993). AI is well known for focusing on collaborative effort (Trajkovski et al. 2016). In bringing conversational convergence (Mantel and Ludema 2004), not only by creating a democratic vision (Gonzales and Leroy 2011) but also by developing responsibility and commitment (Conkright 2011; Ruhe et al. 2011), AI promotes effectiveness and catalyses learning (G. R. Bushe and Coetzer 1995; Ridley-Duff and Duncan 2015). Furthermore, research studies have shown that group potency is associated with group performance (Pearce et al. 2002; Whiteoak et al. 2004) and that a belief in collective efficacy consistently predicts group durability and success (Goddard and Salloum 2011). Two (quasi) experimental studies also reveal that AI participants tend to have more positive images of the future (Jones 1998; Peelle III 2006). In the AI literature, this positive image is often linked to hope (G. R. Bushe 2007; G. R. Bushe and Paranjpey 2015; Ludema 2000), which is related to performance in various domains, including the workplace (Adams et al. 2002; Luthans et al. 2005; Luthans and Jensen 2002; Luthans et al. 2004;

Youssef and Luthans 2006, 2007). Taken together, these results can also explain Jones' (1998) findings which suggest that AI can have a positive effect on employee retention.

4.3 | Generativity

AI has been depicted as a model that significantly increases generativity (G. R. Bushe and Kassam 2005; D. L. Cooperrider 2013; Powley et al. 2004). However, G. R. Bushe and Paranjpey (2015) showed in their quasi-experimental study that generativity does not appear to be a specific feature of AI because the approach generates as many ideas as the problem-solving and synergenesis conditions. However, synergenesis (a technique that amplifies generativity in AI) could lead to more practical and interesting ideas in the discovery phase of AI. Indeed, using that innovative technique could improve the emergence of new and compelling ideas. Sharing ideas in groups can be a stimulating way to produce more creative ideas (Dugosh et al. 2000; Nijstad et al. 2002; Stroebe et al. 2010). Furthermore, when participants are motivated by the ideas generated, the positive impact of that productivity can be enhanced (Kohn et al. 2011; Paulus and Yang 2000). Using a technique such as synergenesis might be an interesting addition to enrich AI in order to improve the quality of ideas identified in the generativity process.

To summarize, this literature review of AI (quasi) experimental studies makes different contributions. It indicates that the thesis according to which AI promotes team-oriented behaviours and performance can be supported by evidence from experimental studies. However, there is currently no evidence regarding specific impacts of AI interventions on generativity, cohesion or conflict management.

Above all, the main contribution of this literature review is to reveal the significant lack of research concerning AI (quasi) experimental studies. The key conclusion to be drawn is the crying need for more standardized studies to better understand the effects of AI interventions, as observed in the case studies. Since the seminal article written by Cooperrider and Srivatsva in 1987, although hundreds of AI case studies in organisational settings have been published (G. R. Bushe and Paranjpey 2015), only three articles have used a (quasi) experimental design.

However, conducting (quasi) experimental research on AI is important as it allows a controlled evaluation of the intervention's effect. By comparing AI interventions to a control or placebo group, a greater internal validity is ensured, given that the results can be attributed to the intervention. Moreover, conducting comparative studies allows isolating the impact of a possible Hawthorne effect. The Hawthorne effect refers to a situation in which the results of an experiment are not due to the experimental factors, but rather to the fact that participants are aware of taking part in an experiment in which they are tested, which usually results in a greater motivation. In other words, the following question is judicious: when beneficial effects are noted, what part of the effect is explained by the quality of the relationship with the practitioner and what part can be explained by the AI intervention itself? Furthermore, (quasi) experimental studies allow a random assignment to groups, which is the best way to ensure that groups are socio-demographically comparable (e.g., age, gender, ethnic group, education, etc.), and thus control for the selection bias. When groups are comparable, it is possible to conceive that the difference between participants is due to whether they received the intervention (experimental group) or not (control group). Other bias, such as the confirmation bias (natural tendency to favour information that confirms preconceived ideas) can also be better controlled. Furthermore, carrying out several (quasi) experimental studies on AI intervention could lead to a meta-analysis, which can provide an estimate—with greater precision—of the effect of the intervention.

In sum, current knowledge in AI is limited by the lack of experimental studies. A research agenda is thus proposed in the following few lines, based on identified needs.

First, there is a general need for more quantitative research on AI. A specific and significant need exists for standardized studies using the 5D cycle within a large sample in an organizational setting. For instance, the objective and measurable effects of AI on generativity, well-being and job performance should be assessed in controlled studies. The sustainability of such effects could be tested with longitudinal designs. Similarly, impacts of AI on relationships, in terms of communication, trust, empathy or collaboration should be addressed. The effects of positive emotions, openness, hope and social support on AI outcomes could be the subject of (quasi) experimental research. Mediating effects should also be studied, especially in a longitudinal perspective. Further experimental studies are thus needed to confirm these different assumptions and extend our scientific knowledge in this regard.

Secondly, comparative studies would allow isolating the impact of a possible Hawthorne effect. Consequently, (quasi) experimental studies with two groups (AI and non-AI intervention) are at least required. The addition of a placebo group (e.g., listening to music while practicing mental visualization) or groups for which alternative practices are proposed (e.g., developing strengths, physical activity, mindfulness, etc.) would be relevant. For example, the comparison between the strengths approach (Peterson and Seligman 2004) and AI is still missing in the scientific literature. However, despite some notable differences, these two models overlap. Indeed, AI and strengths interventions have a similar process, including a preparation phase (information and definition of objectives), a strengths identification phase (the discovery in AI), an integration phase and a phase of action. Nevertheless, within this process, the models differ on various points. For instance, AI integrates a phase of divergence (the dream) before converging towards a common future (the design) which is then implemented. Thus, AI is directed toward a common ideal, co-constructed as a group. Strength's development tends to be more of an individual quest, whereas AI is part of a collective process. The quest for individual strengths and resources is explored in pairs through life stories in AI, and through psychometric tests or observations by oneself or by loved ones in strengths intervention. Do these variations lead to different results in terms of well-being and performance? As mentioned, several definitions of well-being and performance exist. It is therefore legitimate to wonder, on what types of well-being and performance do these approaches act? Are they the same? If not, how do they differ? What are the strengths and limitations of these two types of interventions? When to choose

one over the other? Testing and comparing these two approaches would allow for a better understanding of their effects and differences. Undoubtedly, further studies are required to investigate these questions and complement current knowledge on AI.

4.4 | Limitations and Future Research Directions

Although this review summarizes findings of (quasi) experimental studies pertaining to AI in the workplace, important limitations can be noted, which may become the starting point for future research. First, the number of (quasi) experimental studies inventoried remains extremely narrow. In addition, the interventions in some studies only partly apply the 5D cycle. The studies reviewed here can only be considered as the beginning of a larger corpus of future research investigating AI outcomes yet to be developed. The conclusions that can be drawn at this point are thus very limited. Further research could, for example, focus on the effect of AI-enhanced trust on task performance.

Second, AI interventions vary greatly from one to the other. This makes the comparison between studies relatively challenging. What is characterized as the 5D cycle can differ in terms of process and length from one study to another, and the destiny phase is rarely described. As the process can be complex and changing, a more precise description of every phase of intervention would be necessary to ensure a complete and thorough understanding of the protocol and allow for possible replication. Furthermore, time allocated to each intervention variates significantly (from 1 hour to years), making the comparative process hazardous.

Third, in a broader perspective, authors tend to describe interventions with a dichotomy; 'AI' versus 'non-AI' interventions. However, might there not be some value to non-AI interventions as well? This limitation suggests a need for a more precise definition of AI. Is AI a philosophy, a technique, or a practice? What can be considered 'AI' and what not? Similarly, developing a psychometric scale to evaluate multiple AI practices in an organization seems essential for more rigorous analysis of AI application. Such a tool could, for instance, capture the interplay between appreciation and strengths (D. L. Cooperrider 2012) as the interacting core of AI, as suggested by Verleysen et al. (2014). The instrument could evaluate the specific added-value of AI beyond the question of efficacy.

Fourth, most AI studies have been conducted in Western cultures. Does AI also work in non-Western contexts? Applying and studying AI in different socio-cultural landscapes could yield a broader understanding of the approach and its operating conditions. Indeed, as cultural norms vary and influence behaviours, AI may require adaptation to be successfully implemented in different cultural contexts.

Fifth, it is important to consider negative effects that may be associated with AI, and whether, in certain circumstances, it should be used at all. G. R. Bushe (2007), G. Bushe (2012) underlines that—in some cases—AI might have been implemented to focus on the positive in order to avoid surfacing concerns, incompetence or ethical issues. Oliver (2005) states that distrust, disengagement and devaluation will occur if AI is used to repress well-founded expressions of hurt, injustice and ill treatment. Pratt (2002), in turn, affirms that using AI in contexts of unexpressed resentments could be detrimental. In such situations, participants would find AI invalidating. More research is needed in this area in order to better understand the conditions under which AI interventions should be conducted (or avoided).

Finally, and as discussed, there is an overall need for more quantitative research on AI. Effects and mediating effects could be studied, especially with (quasi) experimental designs, as well as in a longitudinal perspective.

5 | Conclusion

The objective of the present research is thus to conduct a literature review of the scientific literature regarding workplace AI intervention studies that used (quasi) experimental designs and analyse the findings in light of the available knowledge on AI. The aim is to validate, complete and nuance current data on AI, and to better understand how it influences individuals and the organizations for which they work. Conclusions emerge from this analysis. AI leads to a will to identify with one's group and to reinvest in that connection in the future. It can lead to enhanced performance through a sense of collective efficacy and feelings of hope. Professionals interested in applying AI in the workplace may consider this approach, notably when designing creativity, teambuilding and purpose definition exercises. However, a crying need of additional research using (quasi) experimental designs exist to further investigate specific AI outcomes, especially in terms of generativity, well-being, engagement, flourishing and virtuousness.

Funding

The authors have nothing to report.

Ethics Statement

All authors certify that they have no affiliations with or involvement in any organization or entity with any financial interest or nonfinancial interest in the subject matter or materials discussed in this manuscript.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

Data sharing not applicable to this article as no datasets were generated or analysed during the current study.

References

Adams, V. H., C. R. Snyder, K. L. Rand, E. A. King, D. R. Sigmon, and K. M. Pulvers. 2002. "Hope in the Workplace." In *Handbook of Workplace Spirituality and Organizational Performance*, edited by R. Giacolone and C. Jurkiewicz, 367–377.

Åslund, A., I. Bäckström, and D. Richardsson. 2011. "Managing by Appreciative Leadership to Create Efficient Organizations and Healthy

Co-Workers." In *Proceedings of 14th OMOD International Conference on Quality and Service Sciences: San Sebastian*.

Baker, A., G. Peacock, S. Cozzolino, et al. 2009. "Applications of Appreciative Inquiry in Facilitating Culture Change in the UK NHS." *Team Performance Management: International Journal* 15, no. 5/6: 276–288. https://doi.org/10.1108/13527590910983530.

Bakker, A. B., W. B. Schaufeli, M. P. Leiter, and T. W. Taris. 2008. "Work Engagement: An Emerging Concept in Occupational Health Psychology." *Work & Stress* 22, no. 3: 187–200. https://doi.org/10.1080/02678370802393649.

Barrett, F. J., and R. E. Fry. 2005. *Appreciative Inquiry: A Positive Approach to Building Cooperative Capacity*. Taos Institute Publications.

Berrisford, S. 2005. "Using Appreciative Inquiry to Drive Change at the BBC." *Strategic Communication Management* 9, no. 3: 22. https://www.proquest.com/openview/51fecc3c71da743f7b3c20276baf66fe/1?pq-origsite=gscholar&cbl=44514.

Borman, W. C., and S. M. Motowidlo. 1993. "Expanding the Criterion Domain to Include Elements of Contextual Performance." In *Personnel Selection in Organizations*, edited by N. Schmitt, and W. C. Borman, 71–98. Jossey-Bass.

Bright, D. S., D. L. Cooperrider, and W. B. Galloway. 2006. "Appreciative Inquiry in the Office of Research and Development: Improving the Collaborative Capacity of Organization." *Public Performance and Management Review* 29, no. 3: 285–306. https://doi.org/10.2753/PMR1530-9576290303.

Bushe, G. 2012. "Feature Choice by Gervase Bushe Foundations of Appreciative Inquiry: History, Criticism and Potential." *AI Practitioner* 14, no. 1. https://gervasebushe.ca/Foundations_AI.pdf.

Bushe, G. R. 1995. "Advances in Appreciative Inquiry as an Organization Development Intervention." *Organization Development Journal* 13: 14–22. https://www.gervasebushe.ca/aiodj.htm.

Bushe, G. R. 2007. "Appreciative Inquiry is Not About the Positive." *OD Practitioner* 39, no. 4: 33–38. https://zeno-organisatieontwikkeling.nl/zeno/wp-content/uploads/2020/10/Bushe-GR-2007-AI-is-not-about-the-Positive.pdf.

Bushe, G. R. 2012. "Appreciative Inquiry: Theory and Critique." In *The Routledge Companion to Organizational Change*, edited by D. Boje, B. Burnes, and J. Hassard, 101–117. Routledge.

Bushe, G. R., and G. Coetzer. 1995. "Appreciative Inquiry as a Team Development Intervention: A Controlled Experiment." *Journal of Applied Behavioral Science* 31, no. 1: 13–30. https://doi.org/10.1177/0021886395311004.

Bushe, G. R., and A. F. Kassam. 2005. "When is Appreciative Inquiry Transformational? A Meta-Case Analysis." *Journal of Applied Behavioral Science* 41, no. 2: 161–181. https://doi.org/10.1177/0021886304270337.

Bushe, G. R., and N. Paranjpey. 2015. "Comparing the Generativity of Problem Solving and Appreciative Inquiry: A Field Experiment." *Journal of Applied Behavioral Science* 51, no. 3: 309–335. https://doi.org/10.1177/0021886314562001.

Cameron, K. S., and B. Winn. 2012. "Virtuousness in Organizations." In *The Oxford Handbook of Positive Organizational Scholarship*, edited by K. Cameron and G. Spreitzer, 231–243. Oxford University Press.

Clarke, M., and J. Thornton. 2014. "Using Appreciative Inquiry to Explore the Potential of Enhanced Practice Education Opportunities." *British Journal of Occupational Therapy* 77, no. 9: 475–478. https://doi.org/10.4276/030802214x14098207541153.

Conkright, T. A. 2011. "Improving Performance and Organization Value Through a Virtual Appreciative Inquiry Summit." *Performance Improvement* 50, no. 6: 31–37. https://doi.org/10.1002/pfi.20224.

Cooperrider, D., and F. Barrett. 2002. "An Exploration of the Spiritual Heart of Human Science Inquiry: A Methodological Call of Our Time." *Calhoun, Institutional Archive of the Naval Postgraduate School*. https://core.ac.uk/reader/36735860.

Cooperrider, D. L. 2012. "The Concentration Effect of Strengths." *Organizational Dynamics* 41, no. 2: 106–117. https://doi.org/10.1016/j.orgdyn.2012.01.004.

Cooperrider, D. L. 2013. "A Contemporary Commentary on Appreciative Inquiry in Organizational Life." In *Organizational Generativity: The Appreciative Inquiry Summit and a Scholarship of Transformation*, edited by D. L. Cooperrider, D. P. Zandee, L. N. Godwin, M. Avital, and B. Boland 4, 3–67. Emerald. https://doi.org/10.1108/s1475-9152(2013)0000004001.

Cooperrider, D. L., and L. N. Godwin. 2015. "Feature Choice." *AI Practitioner* 17, no. 3. https://doi.org/10.12781/978-1-907549-34-2-11.

Cooperrider, D. L., and M. McQuaid. 2012. "The Positive Arc of Systemic Strengths: How Appreciative Inquiry and Sustainable Designing Can Bring Out the Best in Human Systems." *Journal of Corporate Citizenship* 2012, no. 46: 71–102. https://doi.org/10.9774/GLEAF.4700.2012.SU.00006.

Cooperrider, D. L., and S. Srivastva. 1987. "Appreciative Inquiry in Organizational Life." *Research in Organizational Change and Development* 1, no. 1: 129–169.

Cooperrider, D. L., and D. Whitney. 2001. "A Positive Revolution in Change: Appreciative Inquiry." *Public Administration and Public Policy* 87: 611–630. https://www.taylorfrancis.com/chapters/edit/10.4324/9781482290011-21/positive-revolution-change-appreciative-inquiry-david-cooperrider-diana-whitney.

Diener, E., D. Wirtz, W. Tov, et al. 2010. "New Well-Being Measures: Short Scales to Assess Flourishing and Positive and Negative Feelings." *Social Indicators Research* 97, no. 2: 143–156. https://doi.org/10.1007/s11205-009-9493-y.

Dugosh, K. L., P. B. Paulus, E. J. Roland, and H. C. Yang. 2000. "Cognitive Stimulation in Brainstorming." *Journal of Personality and Social Psychology* 79, no. 5: 722–735. https://doi.org/10.1037/0022-3514.79.5.722.

Egan, T. M., and C. M. Lancaster. 2005. "Comparing Appreciative Inquiry to Action Research: OD Practitioner Perspectives." *Organization Development Journal* 23, no. 2: 29. https://www.proquest.com/openview/cc154637d5ea5da226e7bc6eca015f31/1?pq-origsite=gscholar&cbl=36482.

Falk, K. J. 2014. "Appreciative Inquiry With Nurses Who Work With Children of Incarcerated Parents." *Nursing Science Quarterly* 27, no. 4: 315–323. https://doi.org/10.1177/0894318414546410.

Finegold, M. A., B. M. Holland, and T. Lingham. 2002. "Appreciative Inquiry and Public Dialogue: An Approach to Community Change." *Public Organization Review* 2, no. 3: 235–252. https://doi.org/10.1023/a:1020292413486.

Fry, R., F. Barrett, J. Seiling, and D. Whitney. 2002. *Appreciative Inquiry and Organizational Transformation: Reports from the Field*. Quorum.

Goddard, R. D., and S. Salloum. 2011. "Collective Efficacy Beliefs, Organizational Excellence, and Leadership." In *The Oxford Handbook of Positive Organizational Scholarship*, edited by K. Cameron and G. M. Spreitzer, 642–650. Oxford University Press.

Gonzales, C. K., and G. Leroy. 2011. "Eliciting User Requirements Using Appreciative Inquiry." *Empirical Software Engineering* 16, no. 6: 733–772. https://doi.org/10.1007/s10664-011-9156-x.

Guzzo, R. A., P. R. Yost, R. J. Campbell, and G. P. Shea. 1993. "Potency in Groups: Articulating a Construct." *British Journal of Social Psychology* 32, no. 1: 87–106. https://doi.org/10.1111/j.2044-8309.1993.tb00987.x.

Henry, K. B., H. Arrow, and B. Carini. 1999. "A Tripartite Model of Group Identification: Theory and Measurement." *Small Group Research* 30, no. 5: 558–581. https://doi.org/10.1177/104649649903000504.

Hone, L. C., A. Jarden, G. M. Schofield, and S. Duncan. 2014. "Measuring Flourishing: The Impact of Operational Definitions on the Prevalence of High Levels of Wellbeing." *International Journal of Wellbeing* 4, no. 1: 62–90. https://doi.org/10.5502/ijw.v4i1.4.

Jones, D. A. 1998. "A Field Experiment in Appreciative Inquiry." *Organization Development Journal* 16, no. 4: 69–78. https://doi.org/10.1177/0021886304270337.

Keyes, C. L. 2002. "The Mental Health Continuum: From Languishing to Flourishing in Life." *Journal of Health and Social Behavior* 43, no. 2: 207–222. https://doi.org/10.2307/3090197.

Kohn, N. W., P. B. Paulus, and Y. Choi. 2011. "Building on the Ideas of Others: An Examination of the Idea Combination Process." *Journal of Experimental Social Psychology* 47, no. 3: 554–561. https://doi.org/10.1016/j.jesp.2011.01.004.

Ludema, J. D. 2000. "From Deficit Discourse to Vocabularies of Hope: The Power of Appreciation." In *Appreciative Inquiry: Rethinking Human Organization Toward a Positive Theory of Change*, edited by D. L. Cooperrider, P. F. SorensenJr., D. Whitney, and T. F. Yaeger, 256–287. Stipes.

Ludwig, T., and R. Houmanfar. 2010. *Understanding Complexity in Organizations: Behavioral Systems*. Routledge.

Luthans, F., B. J. Avolio, F. O. Walumbwa, and W. Li. 2005. "The Psychological Capital of Chinese Workers: Exploring the Relationship With Performance." *Management and Organization Review* 1, no. 2: 249–271. https://doi.org/10.1111/j.1740-8784.2005.00011.x.

Luthans, F., and S. M. Jensen. 2002. "Hope: A New Positive Strength for Human Resource Development." *Human Resource Development Review* 1, no. 3: 304–322. https://doi.org/10.1177/1534484302013003.

Luthans, F., R. Van Wyk, and F. O. Walumbwa. 2004. "Recognition and Development of Hope for South African Organizational Leaders." *Leadership & Organization Development Journal* 25: 512–527. https://doi.org/10.1177/0149206307305562.

Mantel, M. J., and J. D. Ludema. 2004. "Sustaining Positive Change: Inviting Conversational Convergence Through Appreciative Leadership and Organization Design." In *Constructive Discourse and Human Organization*, edited by D. L. Cooperrider and M. Avital, 309–336. Emerald.

Nijstad, B. A., W. Stroebe, and H. F. Lodewijkx. 2002. "Cognitive Stimulation and Interference in Groups: Exposure Effects in an Idea Generation Task." *Journal of Experimental Social Psychology* 38, no. 6: 535–544. https://doi.org/10.1016/s0022-1031(02)00500-0.

Oliver, C. 2005. "Critical Appreciative Inquiry as Intervention in Organizational Discourse." In *Organizational Development in Healthcare: Approaches, Innovations, Achievements*, edited by E. Peck, 205–218. Radcliffe Press.

Paulus, P. B., and H. C. Yang. 2000. "Idea Generation in Groups: A Basis for Creativity in Organizations." *Organizational Behavior and Human Decision Processes* 82, no. 1: 76–87. https://doi.org/10.1006/obhd.2000.2888.

Pearce, C. L., C. A. Gallagher, and M. D. Ensley. 2002. "Confidence at the Group Level of Analysis: A Longitudinal Investigation of the Relationship Between Potency and Team Effectiveness." *Journal of Occupational and Organizational Psychology* 75, no. 1: 115–119. https://doi.org/10.1348/096317902167685.

Peelle III, H. E. 2006. "Appreciative Inquiry and Creative Problem Solving in Cross-Functional Teams." *Journal of Applied Behavioral Science* 42, no. 4: 447–467. https://doi.org/10.1177/0021886306292479.

Peterson, C., and M. E. Seligman. 2004. *Character Strengths and Virtues: A Handbook and Classification*. Oxford University Press.

Pill, S. 2016. "An Appreciative Inquiry Exploring Game Sense Teaching in Physical Education." *Sport, Education and Society* 21, no. 2: 279–297. https://doi.org/10.1080/13573322.2014.912624.

Powley, E. H., R. E. Fry, F. J. Barrett, and D. S. Bright. 2004. "Dialogic Democracy Meets Command and Control: Transformation Through the Appreciative Inquiry Summit." *Academy of Management Executive* 18, no. 3: 67–80. https://doi.org/10.5465/ame.2004.14776170.

Pratt, C. 2002. "Creating Unity From Competing Integrities: A Case Study in Appreciative Inquiry Methodology." In *Appreciative Inquiry and Organizational Transformation: Reports from the Field*, edited by R. Fry, F. Barrett, J. Seiling, and D. Whitney, 99–120. Quorum Books.

Quinn, R. E. 2000. *Change the World: How Ordinary People Can Achieve Extraordinary Results* 205. Jossey-Bass.

Ridley-Duff, R. J., and G. Duncan. 2015. "What is Critical Appreciation? Insights From Studying the Critical Turn in an Appreciative Inquiry." *Human Relations* 68, no. 10: 1579–1599. https://doi.org/10.1177/0018726714561698.

Rozin, P., and E. B. Royzman. 2001. "Negativity Bias, Negativity Dominance, and Contagion." *Personality and Social Psychology Review* 5, no. 4: 296–320. https://doi.org/10.1207/S15327957PSPR0504_2.

Ruhe, M. C., S. N. Bobiak, D. Litaker, et al. 2011. "Appreciative Inquiry for Quality Improvement in Primary Care Practices." *Quality Management in Health Care* 20, no. 1: 37–48. https://doi.org/10.1097/QMH.0b013e31820311be.

Shendell-Falik, N., M. Feinson, and B. J. Mohr. 2007. "Enhancing Patient Safety: Improving the Patient Handoff Process Through Appreciative Inquiry." *Journal of Nursing Administration* 37, no. 2: 95–104. https://doi.org/10.1097/00005110-200702000-00012.

Smith, K. K., and D. N. Berg. 1987. *Paradoxes of Group Life: Understanding Conflict, Paralysis, and Movement in Group Dynamics*. Jossey-Bass.

Stefaniak, K. 2007. "Discovering Nursing Excellence Through Appreciative Inquiry." *Nurse Leader* 5, no. 2: 42–46. https://doi.org/10.1016/j.mnl.2007.01.010.

Stroebe, W., B. A. Nijstad, and E. F. Rietzschel. 2010. "Beyond Productivity Loss in Brainstorming Groups: The Evolution of a Question." In *Advances in Experimental Social Psychology*, edited by M. P. Zanna and J. M. Olson, 43, 157–203. Academic Press.

Trajkovski, S., V. Schmied, M. Vickers, and D. Jackson. 2013. "Using Appreciative Inquiry to Transform Health Care." *Contemporary Nurse* 45, no. 1: 95–100. https://doi.org/10.5172/conu.2013.45.1.95.

Trajkovski, S., V. Schmied, M. Vickers, and D. Jackson. 2015. "Using Appreciative Inquiry to Bring Neonatal Nurses and Parents Together to Enhance Family-Centred Care: A Collaborative Workshop." *Journal of Child Health Care* 19, no. 2: 239–253. https://doi.org/10.1177/1367493513508059.

Trajkovski, S., V. Schmied, M. H. Vickers, and D. Jackson. 2016. "Experiences of Neonatal Nurses and Parents Working Collaboratively to Enhance Family Centred Care: The Destiny Phase of an Appreciative Inquiry Project." *Collegian* 23, no. 3: 265–273. https://doi.org/10.1016/J.COLEGN.2015.05.004.

Verleysen, B., F. Lambrechts, and F. van Acker. 2014. "Building Psychological Capital With Appreciative Inquiry: Investigating the Mediating Role of Basic Psychological Need Satisfaction." *Journal of Applied Behavioral Science* 51, no. 1: 10–35. https://doi.org/10.1177/0021886314540209.

Verleysen, B., F. Lambrechts, and F. Van Acker. 2015. "Building Psychological Capital With Appreciative Inquiry: Investigating the Mediating Role of Basic Psychological Need Satisfaction." *Journal of Applied Behavioral Science* 51, no. 1: 10–35. https://doi.org/10.1177/0021886314540209.

Watkins, S., B. Dewar, and C. Kennedy. 2016. "Appreciative Inquiry as an Intervention to Change Nursing Practice in In-Patient Settings: An Integrative Review." *International Journal of Nursing Studies* 60: 179–190. https://doi.org/10.1016/j.ijnurstu.2016.04.017.

Watson, W. E., L. Johnson, and D. Merritt. 1998. "Team Orientation, Self-Orientation, and Diversity in Task Groups: Their Connection to Team Performance Over Time." *Group & Organization Management* 23, no. 2: 161–188. https://doi.org/10.1177/1059601198232005.

Whiteoak, J. W., L. Chalip, and L. K. Hort. 2004. "Assessing Group Efficacy: Comparing Three Methods of Measurement." *Small Group Research* 35, no. 2: 158–173. https://doi.org/10.1177/1046496403258495.

Whitney, D. 1998. "Let's Change the Subject and Change Our Organization: An Appreciative Inquiry Approach to Organization Change." *Career Development International* 3, no. 7: 314–319. https://doi.org/10.1108/13620439810240746.

Whitney, D. D., and A. Trosten-Bloom. 2010. *The Power of Appreciative Inquiry: A Practical Guide to Positive Change*. Berrett-Koehler Publishers.

Yaeger, T. F., P. F. Sorensen, and U. Bengtsson. 2005. "Assessment of the State of Appreciative Inquiry: Past, Present, and Future." In *Research in Organizational Change and Development*, 297–319. Emerald.

Youssef, C. M., and F. Luthans. 2007. "Positive Organizational Behavior in the Workplace: The Impact of Hope, Optimism, and Resilience." *Journal of Management* 33, no. 5: 774–800. https://doi.org/10.1177/0149206307305562.

Youssef, C. M., and F. Luthans. 2006. "Positivity in the Middle East: Developing Hopeful Egyptian Organizational Leaders." In *Advances in Global Leadership*, edited by W. Mobley and E. Weldon, 4, 283–297. Elsevier Science.