

Appreciative Inquiry as a Team Development Intervention: A Controlled Experiment

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ABSTRACT

In a controlled laboratory experiment the effects of a team development intervention based on the theory of appreciative inquiry was compared with task oriented team development and lectures on group processes, outcomes and performance. 96 undergraduate students in two semesters of an introductory organization behaviour course participated in 4 person teams and had 13 weeks to complete a task worth 25% of each member's final grade. One third of teams received an appreciative inquiry intervention, another third received a task oriented team development intervention and the final third received a lecture on group dynamics (placebo). Pre and post surveys assessed group process and outcomes; project grades were used to assess task performance.

ANOVAs and ANCOVAs on each of the process and outcome measures showed groups receiving appreciative inquiry and task oriented team development scored significantly higher than those receiving the placebo on almost all measures, including task performance. Teams receiving task oriented team development scored significantly higher than appreciative inquiry on task performance. Implications for organization development and directions for future research are discussed.

Appreciative inquiry (Cooperrider & Srivastva, 1987), a theory of organizing and method for changing social systems, is one of the more significant innovations in action research in the past decade. Notwithstanding the emphasis action researchers place on involving their "subjects" as co-researchers (e.g., Elden & Chisholm, 1993; Israel, Schurman & Hugentobler, 1992) most action research is based upon the logical positivist paradigm (Sussman & Evered, 1978) which treats social and psychological reality as something fundamentally stable, enduring, and "out there". Appreciative inquiry, however, is a product of the socio-rationalist paradigm (Gergen, 1982, 1990) which treats social and psychological reality as a product of the moment, open to continuous reconstruction. While appreciative inquiry has caught the attention of many organization development (OD) consultants and scholars (Bushe & Pitman, 1991; Curran, 1991), we are not aware of any published empirical research on its effects as a method of change.

One form of action research common in organization development is team development interventions that rely on the collection and feedback of data to aid groups in developing more effective group forms and processes. In this study we develop a team building intervention based on the principles of appreciative inquiry and use a controlled, laboratory study to assess its impact on conventional measures of group process and team outcomes in comparison to a traditional team development intervention and a "placebo".

The study uses a classically positivistic methodology to assess the impact of a socio-rationalist method of inquiry on action. This may seem, at first, to contradict the very essence of appreciative inquiry (as described below). Yet, what more stringent test of a competing paradigm can one perform than to assess it with its "competition" using an assessment paradigm congruent with the competition? While the full merits of appreciative inquiry as a theory of collective action needs to be assessed by methods congruent with the socio-rationalist paradigm, we believe that assessing appreciative inquiry's impact on traditional measures of groups that have evolved from applied behavioral science is a strong test of the method's potential as a form of action research and organization development.

We begin by describing the theory of appreciative inquiry and the team development process we created from the theory. We then describe the other two interventions used in the study, task-oriented team development (Rubin, Plovnick & Fry, 1977), and the placebo, expert presentation. Thereafter the methods section describes the sample, experimental procedure, measures and analysis strategy. Following the results section we discuss the contributions and limitations of the study and directions for future research.

Appreciative Inquiry as a Team Development Intervention

Appreciative inquiry (Cooperrider & Srivastva, 1987) is both a method of action research and a theory of how social forms cohere and evolve. In their seminal paper Cooperrider & Srivastva criticize the lack of useful theory generated by traditional action research studies and contend that both the epistemology and ontology of action research are to blame. Taking the socio-rationalist point of view associated with the "interpretivist" or "sociology of knowledge" school (Berger &

Luckmann, 1967; Schutz, 1971) they argue that there is nothing inherently real about any particular social form, no transhistorically valid principles of social organization to be uncovered. While logical positivists tend to assume that social phenomena are sufficiently enduring, stable and replicable to allow for lawful principles, or at the very least, probabilistic tendencies, socio-rationalism contends that social order is fundamentally unstable. "Social phenomena are guided by cognitive heuristics, limited only by the human imagination: the social order is a subject matter capable of infinite variation through the linkage of ideas and action". (Cooperrider and Srivastva, 1987, p.139). From this point of view the creation of new and evocative theories of groups, organizations, and societies are a powerful way to aid in their change and development.

Cooperrider and Srivastva are not alone in pointing out that action research has largely failed to generate new social science theory (e.g., Porras & Robertson, 1987). Like most post-modernists, Cooperrider & Srivastva argue that logical positivistic assumptions trap us in a rear-view world and methods based on these assumptions tend to (re)create the social realities they purport to be studying. Further, they argue that action researchers tend to assume that their purpose is to solve a problem. Groups and organizations are treated not only as if they have problems, but as if they are problems to be "solved". Cooperrider and Srivastva contend that this "problem-oriented" view of organizing and inquiry reduces the possibility of generating new theory, and new images of social reality, that might help us transcend current social forms. What if, instead of seeing organizations as problems to be solved, we saw them as miracles to be appreciated? How would our methods of inquiry and our theories of organizing be different?

Appreciative inquiry "...refers to both a search for knowledge and a theory of intentional collective action which are designed to help evolve the normative vision and will of a group, organization, or society as a whole" (Cooperrider & Srivastva, 1987, p.159). In this study we are concerned exclusively with the theory of intentional collective action and how an appreciative inquiry may contribute to that. This is not an appreciative study of group development but, rather, a positivistic study of appreciative inquiry as an OD intervention.

Cooperrider makes the theory of change embedded in appreciative inquiry explicit in a later paper on the affirmative basis of organizing (Cooperrider, 1990). In this paper Cooperrider proffers the "heliotropic hypothesis" - that social forms evolve toward the "light"; that is, toward images that are affirming and life giving. While the paper is written about organizations, we will paraphrase him here in the language of groups. In essence his argument is that all groups have images of themselves that underlay self-organizing processes and that social systems have a natural tendency to evolve toward the most positive images held by their members. Conscious evolution of positive imagery, therefore, is a viable option for evolving the group as a whole.

One of the ironies Cooperrider helps us to see is that the greatest obstacle to the well-being of an ailing group is the affirmative projection that currently guides the group. To affirm means to 'hold firm' and it "...is precisely the strength of affirmation, the degree of belief or faith invested, that allows the image to carry out its heliotropic task" (Cooperrider, 1990, p.120). When groups find that attempts to fix problems create more problems, or the same problems never go away, it is

a clear signal of the inadequacy of the group's current affirmative projection. Groups, therefore, do not need to be fixed; they need to be affirmed and "...every new affirmative projection of the future is a consequence of an appreciative understanding of the past or present" (p.120).

Appreciative inquiry, as a praxis of collective action, is an attempt to generate a collective image of a new and better future by exploring the best of what is and has been. These new images, or "theories", create a pull effect that generates evolution in social forms. The four principles Cooperrider and Srivastva (1987) articulate for an action research that can create new and better images are that research should *begin with appreciation*, should be *applicable*, should be *provocative*, and should be *collaborative*. The basic process of appreciative inquiry is to begin with a grounded observation of the "best of what is", then through vision and logic collaboratively articulate "what might be", ensuring the consent of those in the system to "what should be" and collectively experimenting with "what can be" (Cooperrider & Srivastva, 1987, p.160). At a conference on the method of appreciative inquiry attended by the senior author (Social Innovations in Global Management, 1989), it was stressed that these new images should not then be used, like a typical problem-solving process, as a target to aim toward, creating a gap to be analyzed followed by strategies to close the gap. To do so would defeat the whole affirmative process. Rather, attention should be paid to the quality of dialogue, the ownership of the images by those in the system, and then those images should be left to work their own "magic".

We created a team development intervention that we believe conforms to the principles of appreciative inquiry. The intervention, exactly as was used in the teams in this study, is as follows:

First, group members are asked to recall the best team experience they have ever been a part of. Even for those who have had few experiences of working with others in groups, there is a 'best' experience. Each group member is asked, in turn, to describe the experience while the rest of the group is encouraged to be curious and engage in dialogue with the focal person. The facilitator encourages members to set aside their cliches and preconceptions, get firmly grounded in their memory of the actual experience, and fully explore what about themselves, the situation, the task, and others made this a "peak" experience. Once all members have exhausted their exploration, the facilitator asks the group, on the basis of what they have just discussed, to list and develop a consensus on the attributes of highly effective groups. The intervention concludes with the facilitator inviting members to publicly acknowledge anything they have seen others in the group do that has helped the group be more like any of the listed attributes.

Other Team Development Interventions Studied

Two kinds of team development interventions typify most of what goes under the rubric of organization development. One involves collection of data about the group's form and process that is then fed back to the group and used as the basis for problem identification. A collaborative problem-solving process then ensues, informed by prescriptions of good team practice. The second type involves collecting data through instruments that measure personality or other individual

characteristics that are then fed back to the group and used as the basis for understanding similarities and differences between members in the group. Past difficulties between members can now be reinterpreted and agreements made for how to act differently in the future building on member differences.

In this study we chose to compare appreciative inquiry to the first kind of team development intervention. Although both types of team development have an action research flavour, the first most resembles the traditional action research paradigm found in OD: an outside party collects data that is then fed back and analyzed by the host system, leading to action plans (Israel et al, 1992; Kolb & Frohman, 1970). A specific form of this intervention, Task Oriented Team Development (TOTD, Rubin et al, 1977) was used because of its popularity, simplicity, easy replicability and because it rests squarely within the logical positivist paradigm: stable, enduring attributes of groups and principles of good group practice are used as templates for identifying group problems and guidelines for developing action plans to fix those problems.

TOTD posits that problems in task groups arise mainly from a lack of clarity or agreement amongst members about the goals, roles and/or procedures of the team. Further, the theory states that agreements about roles and procedures cannot be adequately resolved unless there is agreement on goals. Procedures, in turn, cannot be clearly articulated unless there is agreement on roles. Thus there is a logical sequence to which issues a team should address: first goals, then roles, then procedures. TOTD provides an instrument with nine scales for assessing members' perceptions of these three attributes. Each scale has a best case and worst case scenario and members are asked to indicate where, on a 5-point continuum between the two extremes, they perceive the group to be.

As used with teams in this study, the intervention is as follows:

First, group members are asked to fill out the TOTD instrument. Then members are asked to indicate where, on each scale, they rated the group and this data is graphically displayed by the facilitator on flip charts. The facilitator then begins with the goal scales and asks members to provide more detail about the meaning behind their ratings. Attention is paid to divergent ratings and ratings that are farthest away from the best case scenario. Any problems or issues are identified and the facilitator then moves on to the role scales and does the same thing. Then onto the procedure measures. Once this is completed, any problems identified are reintroduced and the group is invited to discuss what they'd like to do about them. The facilitator works to develop group consensus about actions to take in the future to make the group more like the best case scenarios on each scale. The intervention ends with a review of agreements made.

Of the many differences between appreciative inquiry and traditional team development, two deserve to be highlighted. Task oriented team development is a problem focused intervention which emphasizes the search for sub-optimal aspects of group functioning and performance as defined by existing theoretical perspectives on what is considered effective. This view of teams makes two key assumptions: 1) that groups are generally deficient in some way and 2) that

conformance to expert models of team functioning will aid group effectiveness. Appreciative inquiry is an affirming intervention that surfaces the tacit theories of team functioning group members carry latent within them and focuses on what they appreciate and consider effective about their group and its functioning. The method does not emphasize existing theory but rather encourages a group to develop its own theory of group effectiveness based on member's perceptions and experiences of team work.

A third intervention, an "expert presentation" on group dynamics was used as a placebo to provide non-obvious control groups for the study. A presentation on group dynamics is not an action research process. From normative re-educative change theory (Chin & Benne, 1985), which underlies much OD in general and group development in particular, a lecture may result in some learning by individuals but is not expected to result in any change in a group's form or process.

The one main hypothesis in this study is that groups receiving either form of action research will be significantly more effective than groups receiving the placebo. Here we are simply looking at a broad level of analysis, to answer the question does appreciative inquiry have the same positive effects on group process and group outcomes as traditional team development. A more fine grained analysis of the processes by which each intervention improves group functioning is left for future studies.

METHOD

The Sample and Experiment

An experiment was performed twice in two separate semesters using university students who were attending a thirteen week introductory course in organizational behavior. A pre-post experimental design was used which respectively entailed (1) the administration of a pre-intervention survey in week 5 containing questions used to measure group processes, (2) about halfway through the course (week 7) exposing each of the student teams to one of the aforementioned interventions or placebo, (3) a post-intervention survey measuring the same group processes, (4) a team presentation and written analysis of a case, and (5) a post-post-intervention survey containing questions used to measure satisfaction with membership and satisfaction with team performance. The grade assigned for the team presentations and papers was used as a measure of task performance.

Students in the course attend 1 two-hour lecture per week with the total class and 1 one-hour tutorial per week consisting of just 16 students each. This is the standard design of all large undergraduate courses at our university. Task teams were created in the tutorials by randomly assigning 4 students to a team, ensuring a balance in gender composition. During tutorials these teams worked on projects and exercises designed to help integrate course material. This ensured teams had some work experiences prior to the interventions. The interweaving of class and research design allowed us to mitigate some of the weaknesses of typical laboratory studies where student teams have a very short life and no meaningful incentives to perform well on tasks. Rather,

the design worked with naturally occurring task teams (project teams are usually created for class projects in this course) that lasted over a three month period, with strong natural incentives (25% of course grades). In addition, the task itself and assessment of its quality were exogenous to the study. The context of the experiment, therefore, is like project teams created in organizations to work on specific, limited tasks, the value of which will be judged (implicitly or explicitly) by someone(s) higher in authority.

Some of the teams had to be dropped from the study due to a lack of survey completion. Of those teams with members fully completing the surveys, in the first semester there were 56 students (14 teams) with an average age of 21.87, and in the second semester there were 40 students (10 teams) with an average age of 22.02. There were equal numbers of men and women in both semesters and an equal number of teams (8) in each of the experimental conditions.

In designing the experiment, attempts were made to control for the influence of certain group and contextual factors that have been shown to influence group processes and outcomes, but were not of direct interest in this particular study. Group characteristics identified as potentially influential included the skills, abilities and attitudes of group members, the gender composition of the group, the type of group, the group's task and the degree of autonomy provided by the group's sponsor. Contextual factors that were considered important included group rewards and performance feedback.

No direct information was collected concerning the varying skills, abilities and attitudes of the team members. To ensure the gender composition in each team was as balanced as possible we stratified the sample by gender and then randomly assigned participants to teams.

The teams in this study had a limited life span and they were created for the purpose of completing a specific project in approximately thirteen weeks. We therefore decided to consider these teams as self-regulating and left the teams to decide on their own leadership and division of labor.

To ensure consistency in task clarity, all the student teams were provided with a set of written instructions regarding the case analysis and the subsequent presentation and paper. This included a grading sheet containing the various aspects of performance that would be used by those assessing the presentation and the paper. The rewards were group based in the form of a grade that each group received for the presentation and the paper. This group grade was subsequently assigned to each individual in that particular group. In order to control for the effects of non-intervention based feedback, the tutorial leaders were instructed to provide no incidental feedback concerning group processes or performance until completion of the presentation and paper. Our "manipulation check" was to talk with individual students approximately two to three weeks after the interventions to gather their impressions of the experience.

In the first semester the second author was the instructor in the course. In the second semester, another instructor, not associated with this study, taught the course. In both semesters,

both authors facilitated the interventions with the groups. A statistical analysis showed no differences in student performance in either course. Students were aware that their project teams were being studied but were not aware of the details of the study. Teams were invited to sign up for "a demonstration of team building activities" during the seventh week of the course when a facilitator was available. Teams were then randomly assigned to one of the three interventions. Each intervention took approximately 1 hour. Participation was voluntary and those students completing all phases of the study were entered into a lottery for \$150. Both authors facilitated equal numbers of the appreciative inquiry and task oriented team development interventions. Only the second author delivered the lectures on team dynamics.

Measures

Team effectiveness was assessed by looking both at group process and group outcomes. Group process was assessed through surveys completed two weeks before and two weeks after the interventions. Specific scales measured participation, cohesion, conflict management, decision-making and confidence in the team's ability. **Conflict management** was measured using the constructive conflict instrument developed by Barker, Tjosvold and Andrews (1988). **Cohesion** was measured using the instrument developed by Seashore (1954). The scales used to measure **participation, decision-making** and **confidence in the team's ability** were developed for this study. Actual item wordings for each scale are presented in Appendix 1 and Cronbach's alpha for each scale are shown in Table 1. All questions used 7-point Likert-type scales.

Group outcomes were assessed through a post-post survey administered at week 12 after the projects were completed but before receiving project grades. Scales assessing **satisfaction with membership** and **satisfaction with team performance** were developed for this study (see Appendix 1).

Task performance, as described earlier, was measured using grades assigned to the teams for performance on both a group presentation and a paper. Both the paper and the presentation involved the analysis of a complex organization behavior case. None of those grading the teams were aware which treatment condition they were in. Since a number of different teaching assistants (but neither of the present authors) graded team projects standardized grading sheets were developed with a number of performance dimensions. Students were given written, explicit descriptions of the grading criteria and procedures. Both presentations and papers were assessed on 5 dimensions: Content (of the analysis), Clarity (of the paper and the presentation), Format (did the structure of the paper/presentation enhance understanding), Creativity (in analysis and recommendations) and Style (quality of presentation materials and tables/figures in the papers). Each of the dimensions had a number of associated scales upon which the grader made judgements about the level of performance associated with that particular dimension. A final task performance score was derived by adding up the scores on each of the dimensions associated with both the case presentation and the written analysis. The paper constituted 60%, and the presentation 40%, of the task performance score.

Data Analysis

The data analysis began with testing the reliability of measures and the validity of the survey data. Scale reliabilities were examined using Cronbach's alpha. All were within acceptable ranges and will be reported in the results section. We tested the validity of the group process variables by examining the correlations between the group process scales and group outcomes. A Pearson product-moment correlation matrix of all the measures, reviewed in the results section, showed strong correlations between group processes and group outcomes. Therefore we felt confident that the group process measures were valid and meaningful.

Two internal threats to the validity of the experiment were explored. The first was whether there was any systematic differences in the impact of the two different facilitators (authors). Analysis of variance adding the facilitators as factors revealed no significant differences. The second internal threat to validity was whether group differences before the intervention accounted for differences in the post intervention surveys. We used a series of one-way ANOVAs on the pre-intervention group process variables to test for significant differences. No significant differences between groups before the interventions were found.

In the statistical analysis we used an ANOVA on the group outcomes testing for the effects of the different interventions. We also looked at the post-intervention group processes variables in this manner. To further examine the impact of the interventions we ran ANCOVAs on the adjusted post-intervention scores of the group process variables using the pre-intervention scores as covariates. This allowed us to remove any effects from the small differences in the groups before the interventions, providing a stronger test of the effects of the interventions on group processes.

RESULTS

The simple correlations among the group process variables at time 2 and group outcomes, along with Cronbach's alpha internal reliability coefficients are given in Table 1. As shown on the diagonal in the table, alpha coefficients ranged between 0.89 and 0.73 for all the scales under investigation suggesting good internal consistency.

INSERT TABLE 1 ABOUT HERE

All the outcome measures were significantly related. The two satisfaction measures were strongly correlated ($r = .70$) and they both correlated with task performance ($r = .44$ and $r = .46$). All the group process variables were significantly correlated with all the group outcome measures with the exception of conflict management, which had a non-significant correlation with satisfaction with team performance ($r = .23$). Satisfaction with membership and satisfaction with team performance were most strongly correlated with confidence in team's ability ($r = .54$ and $r = .44$).

respectively). Task performance had the strongest correlation with conflict management ($r = .40$). Correlations between the outcome measures and participation ranged from $r = .30$ to $r = .41$; with cohesion they ranged from $r = .30$ to $r = .52$; and with decision-making they ranged from $r = .31$ to $r = .40$.

The level of intercorrelation amongst the group process variables ranged from a non-significant $r = .23$ to a highly significant $r = .76$. Given the large number of significant intercorrelations among the group process variables caution must be exercised when interpreting the absolute values of their relationships to the outcome measures. These interrelationships are not surprising as group process variables are not expected to be independent. Since each of these measures of group process is treated as a dependent variable in this study problems associated with multicollinearity are not an issue. Suffice it to say that, in this study, these group process variables were meaningfully related to group effectiveness.

Group Outcomes

The results of the ANOVA assessing the impact of each intervention on each measure of group outcomes and group process at time 2 are summarized in Table 2. Table 2 displays the means, standard deviations and significance levels of the variances between interventions on each measure.

Effects on all three group outcomes were highly significant. The Tukey studentized range comparisons between interventions on satisfaction with membership yielded significant differences between the expert presentation ($= 4.34$) and both appreciative inquiry ($= 5.66$) and task-oriented team development ($= 5.60$) at the .01 level. Tukey studentized range comparisons between interventions on satisfaction with performance also yielded significant differences between the expert presentation ($= 4.73$) and both appreciative inquiry ($= 5.67$) and task-oriented team development ($= 5.92$) at the .01 level. On both measures groups receiving the expert presentation had significantly lower mean scores while there was no significant difference between the groups receiving the action research interventions. These results provide support for our hypothesis that appreciative inquiry will have a similar, positive impact on the process and outcomes of teams compared with traditional team development interventions.

INSERT TABLE 2 ABOUT HERE

The results of the ANOVA performed on task performance data yielded significant differences between, (1) the expert presentation ($= 4.15$) intervention and both appreciative inquiry ($= 5.35$) and task-oriented team development ($= 5.90$) at the .01 level, and (2) between appreciative inquiry and task-oriented team development at the .05 level. Teams receiving the

expert presentation intervention had the lowest mean score on task performance, which suggests that the action research interventions significantly improve performance on the task relative to the placebo. This provides evidence in support of our hypothesis. In addition, the significantly higher mean score for task-oriented team development suggests that this intervention has a greater positive impact on task performance than appreciative inquiry.

Group Processes

The results of the ANOVA performed on group processes at time 2 showed significant intervention differences on all measures. The pattern is almost identical to the ANCOVA using time 1 group process measures as covariates. Here we will focus on the ANCOVA results as they are a stronger test of the effects.

INSERT TABLE 3 ABOUT HERE

We began the analysis of covariance by examining the significance of the correlations between the pre and post-intervention scores on each group process measure. All were significant at the .001 level. We also tested for the equality of slopes for all interventions on all measures and found no violation of parallelism on any measure. Thus all the requirements for analysis of covariance were met. Below we report the adjusted means for time 2 results.

Effects of the interventions on all measures were highly significant. T-test probabilities for participation reveal that the expert presentation intervention ($= 4.93$) is significantly different from both task-oriented team development ($= 5.69$) and appreciative inquiry ($= 5.62$) at the .001 level. Decision-making was also significantly affected by both action research interventions. Expert presentation ($= 5.46$) is significantly different from both task-oriented team development ($= 5.83$) and appreciative inquiry ($= 5.88$) at the .05 level. A similar result is observed for confidence in team's ability with expert presentation ($= 5.38$) being significantly lower than appreciative inquiry ($= 5.77$) and task-oriented team development ($= 5.86$) at the .05 level.

The final two measures, cohesion and conflict management reveal a slightly different pattern of results. For both of these measures, groups receiving task-oriented team development and appreciative inquiry have higher means than those receiving the placebo, but task-oriented team development appeared to have a greater impact. In regards to group cohesion, task-oriented team development ($= 5.99$) was significantly different from expert presentation ($= 5.48$) at the .01 level of confidence. The t-test of appreciative inquiry ($= 5.83$) versus expert presentation showed a probability level of .06, just outside the limits statistical significance. On conflict management, task-oriented team development ($= 4.99$) was significantly different from expert presentation ($=$

4.53) at the .05 level while appreciative inquiry (= 4.72) was not significantly different from the other two.

Overall, the pattern of results shows that both appreciative inquiry and task oriented team development produced higher scores on measures of group process, group outcomes and task performance than the placebo. There was also a significant difference between groups receiving the two types of interventions on task performance, with groups receiving task-oriented team development scoring higher those receiving appreciative inquiry.

Group means on measures of group process and outcomes, however, were not significantly different for task-oriented team development and appreciative inquiry. One could interpret these results to mean that task-oriented team development is superior to appreciative inquiry on measures of task performance and that the two interventions are roughly equivalent on measures of group process and group outcomes.

DISCUSSION

This study provides support for the hypothesis that appreciative inquiry is an effective team development intervention. The research findings in Tables 2 and 3 show that even on the few measures where appreciative inquiry did not significantly differentiate from the placebo, the group means for appreciative inquiry were higher. Subsequent debriefing of subjects indicated that those receiving both action research interventions found them to be powerful and helpful experiences for their teams while those who received the expert presentation found it "OK" but it did not change their group's processes.

One of the most striking results of the study is the overall impact of the action research interventions compared to the placebo. Research into the effectiveness of team building has had mixed results (Kernaghan & Cooke, 1990; Sundstrom, de Meuse & Futrell, 1990) and has led some to question the utility of any particular team building technique. Some have interpreted the lack of consistent findings to different skill levels of the facilitator. We do not doubt that varying skill levels of team development consultants will make a difference in extreme situations. In this study, however, we found no differences in the impact of either technique as used by the senior author with 18 years of training and experience and the second author who is a relative novice in the field. These were fairly simple interventions into groups that, judging from the pre-intervention surveys and our intervention experiences, were not highly dysfunctional. One of the reasons for a lack of positive findings in studies of simple intervention techniques may well be a lack of control groups or placebos by which to compare actual results.

The strength of the interventions on task performance has, in fact, created an ethical dilemma for us in our research program. If these interventions do create more effective teams, and students are getting grades based on their teams' outputs, is it fair to assign one-third of the students to control groups? Conducting these experiments with naturally occurring task teams with real performance incentives is critical, we believe, to the generalizability of our findings. In future

experiments we are planning to collect control group data in one semester of the course and then use interventions with all student teams in another semester.

While we have demonstrated that both action research interventions created similar effects in teams, we have not studied the process by which these effects take place. Cooperrider's heliotropic hypothesis, in particular, can and should be studied empirically. Hermeneutic and phenomenological methods can usefully be brought to bear on the question. We, however, are experimenting with a pen and paper measure of group image that we have adapted from research on self image (Higgins, 1987; Moretti & Higgins, 1990). We hope this will allow us to study the actual impact of appreciative inquiry on the images group members hold individually and collectively, of both their ideal images and the images of their actual teams.

During the interventions we found that those who received task-oriented team development all rated their teams at the positive ends of each scale. From our point of view many of these ratings were inflated. Subsequent debriefing suggested that these members were quite relieved to "discover" that their team mates appeared to be content with the structure and process of the team, and this may account for the higher scores on cohesion and conflict management. The avoidance of anxiety is clearly a strong force in groups and organizations (Hirschhorn, 1988; Jacques, 1955) and it appeared to us that the relatively more structured approach of task-oriented team development seemed to be less anxiety provoking than the more ambiguous appreciative inquiry process. Members could avoid, if they so desired, surfacing differences in the task-oriented team development process but could not in appreciative inquiry. By relating personal stories of their best team experiences, members had to make more personal and more differentiating disclosures. For a task team with a limited 13 week project, members may well prefer to avoid confrontation of group differences in favor of cohesion around the task itself.

While this may explain the survey findings it begs the question of which intervention is more developmental. Group development theory suggests that an optimal level of anxiety is necessary to propel a group through developmental growth (Whitman, 1964). In general, group development theory posits that group members must first create a sense of their individual identity within the group and then create a group identity (Bennis and Shepard, 1956; Srivastva, Obert & Neilsen, 1977). The appreciative inquiry intervention we used may help to do both, though the theory is clearly focused more on the latter phase of group identity, in that it focuses on developing a group image. The impact of appreciative inquiry on group development, at different stages of development, may be a fruitful area of future study.

Application to OD

There are some important threats to the generalizability of this study to OD practice which bear noting. Most of these have to do with the difference between a laboratory study in a university and OD work in the field. Perhaps the most important is that none of these teams requested the intervention in the first place. Team development interventions almost always follow from a felt need by a team for some assistance. It may be that both types of interventions will have very

different impacts on a team requesting assistance from one that is basically happy with how things are going. The senior author has used both types of interventions with managerial teams requesting assistance with some success. Anecdotal evidence from his consulting practice indicates that appreciative inquiry may be helpful to newly forming teams as a way to help speed up the generation of a collective affirming image. It may be this which helped increase the effectiveness of teams in this study.

Another important difference is that team-building often occurs with on-going teams which do not have one task in a limited time frame but have multiple tasks with varying time frames. We are aware of a number of successful applications of appreciative inquiry with long term teams that have already done some group reflection and been through standard team building interventions. Such an application could not be tested with this research design. Anecdotal evidence strongly suggests that there is a relationship between the interpersonal sophistication of team members and the team's ability to engage in a dialogue of inquiry into each other's experiences in a way that leads to insight, fresh appreciations, and new affirming images. Another limitation of this study is the relative lack of sophistication and life experience of undergraduates. In this case, however, it suggests that Appreciative Inquiry can lead to useful outcomes with less sophisticated groups. Teams that are experiencing performance problems under deadlines, especially those that have done little group reflection, seem to prefer the more task-oriented approach. This study's finding, that task-oriented team development was associated with significantly higher task performance, does suggest that traditional team building is more appropriate for task concerns (at least, short term).

It may be, however, that groups which are highly dysfunctional will benefit more from the appreciative approach. Our pre-intervention survey showed that none of the teams was extremely dysfunctional so there is little in this study to explore this question. Some field experiences are suggestive however. Cooperrider tells the story of a large group of representatives of non-governmental organizations trying to develop a concerted approach to a relief effort. Many of the participants were from organizations accustomed to confrontation tactics and adversarial relations and were having a difficult time developing guidelines for working together. Apparently, the effort was falling apart and members had resigned themselves to working independently when, in a last ditch effort they agreed to try an appreciative inquiry into their collective experience of cooperative action across different organizations. This resulted in a significant turnaround in the group's climate and a set of very effective guidelines were developed that sustained a highly complex and highly interdependent relief effort for many months.

When groups are fragmented and falling apart, inquiry into what is happening in the group, the traditional action research mode, is probably not that helpful. If anything, it will only serve to reinforce the fragmentation and add an air of despair. Groups that are fragmenting need something to pull members together and it is doubtful whether any "analytical" process can do that. Analysis serves to slice things up, pull them apart, open them up for observation. Instead what is needed is a mode of inquiry that can pull things together, heal wounds and foster wholeness. Inquiring with the "heart", which is at the basis of affirmation and appreciative inquiry, may be far more effective for enabling collective action than more traditional action research processes.

In a similar vein, the senior author has tried appreciative inquiry in two situations where team members were very frustrated but very afraid to voice their frustration within the team. These were cases where attempts to push members to disclose their concerns, or feed them back to the group as a whole, was likely to cause denial and greater withdrawal. In both cases team members were asked about their best experiences, created the list of attributes of "excellent teams", and then were given the evening to individually prepare to provide feedback on how other team members helped the group achieve "excellence". In both cases, the task pushed the frustration level to the point where, on the following day, members could not contain their frustration and voluntarily expressed what they had been afraid to express. Both cases proved to be fairly cathartic and healing. In these cases appreciative inquiry was effective as a paradoxical intervention (Quinn & Cameron, 1988; Watzlawick, Weakland & Fisch, 1974). By focusing attention on what people were not feeling (appreciation for each other) the issues getting in the way of their affirming beliefs naturally bubbled to the surface. These interventions did not, however, appear to change the underlying affirming visions these groups held.

Conclusion

In a controlled experimental study we have shown that a team development technique based on the theory of appreciative inquiry has a similar, significant impact on the group process and group outcomes of task teams as a traditional team development intervention. While appreciative inquiry significantly increased task performance compared to the placebo, task oriented team development produced even higher scores.

Appreciative inquiry challenges us and presents us with new opportunities both in how we conduct research and in how we assist groups and organizations mobilize collective action in healthy, life-affirming ways. This study did not examine appreciative inquiry as a research method. The study does show, however, that the method may have utility as an OD intervention and that it fully deserves further examination by researchers concerned with teams and team development.

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Appreciative Inquiry as a Team Development Intervention

APPENDIX 1 Item Wordings for all Scales

COHESION

I feel part of my team
I look forward to being with my team
I really want to belong to this team
If I could, I would leave this team(reversed)

CONFLICT MANAGEMENT

I feel energized and ready to get down to work after a conflict
Generally I feel I have benefited from conflict on the project team
I feel angry towards team members after a conflict(reversed)

DECISION-MAKING

The contribution of every group member is listened to and considered
We like to consider a lot of different ideas before making a decision
We appreciate and build on our individual differences
What I want from this team fits with what others want from this team
The personal objectives of team members are incompatible, we work at cross purposes(reversed)

PARTICIPATION

I feel free to say what ever I think in this team
All members participate equally in the team
One or two people dominate our team's discussions(reversed)
People are open in expressing their thoughts and feelings

CONFIDENCE IN TEAM'S ABILITY

We waste time in our meetings(reversed)
We coordinate our efforts well
I trust other members to do what they say they will do
Each member feels equally responsible for the team's work
After a team meeting I feel discouraged (reversed)
I am confident about this team's ability to excel
The people in this team are competent and capable
I am confident that this team will succeed at meeting the requirements
I am afraid the group will not succeed(reversed)
Our meetings are chaotic(reversed)

SATISFACTION WITH MEMBERSHIP

Being a member of this team has been personally satisfying
I would chose this team to work with on similar tasks in the future
Being a member of this team was a positive experience

SATISFACTION WITH TEAM PERFORMANCE

I am satisfied with the final project of this team
We did an excellent job on our case presentation

Appreciative Inquiry as a Team Development Intervention

TABLE 1
Correlation matrix and alphas for group outcomes and group processes at time 2

	1	2	3	4	5	6	7	8
Group process:								
1. Participation	.73	.56**	.51**	.61**	.23	.41*	.30*	.30*
2. Cohesion		.88	.74**	.74**	.40**	.52**	.30*	.39**
3. Confidence in team's ability			.89	.76**	.38**	.54**	.44**	.34**
4. Decision-making				.81	.42**	.39**	.40**	.31**
5. Conflict management						.75	.26*	.23
6. Satisfaction with membership							.87	.70**
7. Satisfaction with performance								.85
8. Task performance								

N = 96

* ≤ .01 ** ≤ .001

Numbers along the top of the matrix correspond to the scales listed on the left.
Alphas for each scale are shown on the diagonal.

Appreciative Inquiry as a Team Development Intervention

TABLE 2
ANOVA: means, standard deviations and significant differences for
post-intervention group processes and group outcomes

SCALE	INTERVENTION MEANS				SIGNIFICANT DIFFERENCES		
	PROB	AI	TD	EP	AI/EP	TD/EP	AI/TD
Group process:							
Participation	0.00	5.60 0.71	5.72 1.11	4.92 0.72	**	**	
Confidence in Team's Ability	0.00	5.81 0.77	5.95 0.84	5.26 1.05	*	**	
Decision-making	0.02	5.88 0.59	5.88 0.91	5.40 0.85	*	*	
Cohesion	0.01	5.84 0.69	6.07 1.06	5.37 0.98		*	
Conflict Management	0.05	4.64 0.92	5.06 1.03	4.54 0.88		*	
Group outcomes:							
Satisfaction with membership	0.00	5.66 0.83	5.60 1.24	4.34 1.48	**	**	
Satisfaction with team performance	0.00	5.67 0.78	5.92 0.75	4.73 1.54	**	**	
Task performance	0.00	5.35 0.23	5.90 0.28	4.15 0.32	**	**	*
		N =	32	32	32		
* ≤ .05 ** ≤ .01		mean is above, standard deviation is below					

AI = appreciative inquiry

TD = task-oriented team development

EP = expert presentation

Appreciative Inquiry as a Team Development Intervention

TABLE 3

ANCOVA: adjusted means and significant differences for
post-intervention group processes using
pre-intervention group processes as covariates

SCALE	ADJUSTED INTERVENTION MEANS				SIGNIFICANT DIFFERENCES		
	PROB	AI	TD	EP	AI/EP	TD/EP	AI/TD
Participation	0.00	5.62	5.69	4.93	***	***	
Confidence in Team's Ability	0.04	5.77	5.86	5.38	*	*	
Decision-making	0.05	5.88	5.83	5.46	*	*	
Cohesion	0.03	5.83	5.99	5.48	^	**	
Conflict Management	0.09	4.72	4.99	4.53		*	
		N =	32	32	32		
^	≤	.06	*	≤	.05	**	≤ .01
						***	≤ .001

AI = appreciative inquiry

TD = task-oriented team development

EP = expert presentation