The Influence of Problem Solving Style on Team Dynamics When Building Consensus

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Issues facing the agricultural and natural resource (ANR) sector can be contentious due to opposing viewpoints, with people working against one another rather than working together to come to consensus on what will benefit the industry as a whole. Without a consistent message, the ANR industry will struggle when trying to gain support from decision makers. Therefore, opinion leaders need the skills to bring individuals and organizations together when facing critical issues that require groups to reach consensus. Agricultural leadership programs can offer educational opportunities for individuals to build problem-solving and team-building skills that will enable them to lead discussions when facing current issues. Unfortunately, little is known about how opinion leaders in the ANR sector work together when facing critical issues or how diverse cognitive styles influence this process. This study explored how cognitive style influenced team dynamics while ANR opinion leaders built consensus around critical ANR issues. Results illustrated that grouping participants by cognitive style influenced how the teams progressed through the consensus building process. The findings and resulting recommendations can assist educators in being selective when assigning groups and developing team-building activities that will prepare ANR opinion leaders to lead cognitively-diverse teams when building consensus.

Keywords: leadership, opinion leaders, issues, consensus building, problem solving

Introduction

The agricultural and natural resource (ANR) industry continually faces contentious issues where those directly involved in the ANR industry work against one another, due to opposing viewpoints and needs (Grudens-Schuck, 2003). Examples of contentious issues facing the ANR

industry include water, food safety, obesity, agriculture practices, environmental impacts, and cultural conflicts (Grudens-Schuck, 2003). Rather than working together to come to consensus on what will benefit the industry as a whole, players in the ANR sector often argue amongst themselves on the best course of action (Chiarelli, Stedman, Carter, & Telg, 2010). Unfortunately, without a consistent message, the ANR industry struggles when trying to gain support from decision makers (Chiarelli et al., 2010). Therefore, opinion leaders within the ANR industry need the skills to bring individuals and organizations with divergent views together when facing critical issues to reach consensus (Whent & Leising, 1992).

Agricultural leadership (AL) programs develop agricultural practitioners' ability to serve as opinion leaders (Lamm, Lamm, & Carter, 2014; Valente & Davis, 1999), or people with a large amount of influence within the broader population they represent (Rogers, 2003). As opinion leaders, AL program participants need the skills to diffuse information about the most current issues (Valente & Davis, 1999). Part of this process is being able to work collaboratively to reach consensus and develop a consistent message. Research has shown that cognitive diversity can play a large role in team cooperation and should not be ignored when trying to build consensus (Kirton, 2003). Therefore, opinion leaders with the ability to work strategically with others of diverse cognitive styles will be more likely to gain the large-scale support they need to develop and implement sustainable solutions (Rogers, 2003). However, little is known about how opinion leaders work collaboratively to disseminate information and teach others about critical ANR issues. Research on how cognitive styles impact team dynamics in opinion leaders can, therefore, inform the development of educational experiences that promote collaborative consensus building skills (Lamm et al., 2012).

The use of problem-solving strategies in agricultural education is common due to the numerous benefits, including an enhancement of problem-solving ability, critical thinking skills, and the ability to relate to others (Boone, 1990; Cano & Martinez, 1991; Phipps, Osborne, Dyer, & Ball, 2008). AL educators are often required to arrange program participants into small groups when facilitating group-learning experiences. Research has shown a variety of factors influence the experience of a group, including learning styles, personality styles, and problem-solving styles (Briggs Myers, McCaulley, Quenk, & Hammer, 2009; Gokhale, 1995; Kirton, 2003; Lamm et al., 2012). Well-structured groups should allow participants to "share their conceptual and procedural knowledge…so that all [participants] are actively engaged in the problem-solving process and differences of opinion are resolved" (Heller & Hollabaugh, 1992, p. 637).

Participants of AL programs are often put into situations where they wrestle with complex issues (Lamm et al., 2014) and serve as a bridge to bring individuals with opposing viewpoints together to reach consensus (Chiarelli et al., 2010). The purpose of this research was to gain an understanding of how problem-solving style influences this process. As a result, this research should assist AL educators in deliberately designing consensus building activities with cognitive

diversity in mind, resulting in more effective teaching and learning processes. Participants will then be able to more effectively lead cognitively-diverse teams when building consensus around critical ANR issues and get the support needed for the ANR industry.

Theoretical Framework

The theoretical framework for this study was based on both Consensus Building Theory (Susskind, 1999) and Adaption-Innovation Theory (Kirton, 2003).

Consensus Building Theory

Consensus Building Theory (Susskind, 1999) was chosen because it clearly identifies the four steps that need to be followed in order to effectively lead cognitively diverse teams when building consensus around critical ANR issues. The four steps are convening, clarifying responsibilities and strategies, deliberation of issues and barriers to address issues, and decision and implementation (Susskind, 1999).

According to Susskind (1999), individuals or groups in a position to bring key stakeholders together, or opinion leaders based on Rogers' (2003) definition, initiate the convening step. During the second step, clarifying responsibilities and strategies, formal roles and responsibilities of group participants, ground rules, and the agenda of the work of the group are established (Susskind, 1999). The third step, deliberation, is crucial to consensus building as it "pursues deliberations in a constructive fashion" (Susskind, 1999, p. 44). Deliberation is accomplished by expressing concerns in an unconditionally constructive manner to maintain a problem-solving approach (Susskind, 1999). Other aspects of the deliberation step include not trading interests for relationships, engaging in active listening, brainstorming, and seeking ways to bridge differences (Marshall, Solomon, & Steber, 2001). The fourth step, decision and implementation, occurs when the group assesses the agreement they have reached (Susskind, 1999). Action items, such as presentations, are formalized during this phase. A detriment of consensus building theory is it often focuses too much on the process while ignoring the impacts of diverse values, cultures, and identities (Schön & Rein, 1994).

Adaption-Innovation Theory

Adaption-Innovation Theory (A-I Theory; Kirton, 2003) is a way of describing cognitive style or "the preferred way in which people respond to and seek to bring about change" (p. 43). A-I Theory was chosen for this study because disparities in cognitive style result in creative problem-solving differences between individuals that can cause issues when trying to build consensus (Kirton, 2003). Individuals from opposing organizations wrestling with agricultural or natural resource issues often come to the table with different problem solving styles, as well as issue-

specific differences. An understanding of cognitive styles, as well as ability to work with diverse cognitive styles, has been found to be critical to problem solving success and may assist opinion leaders in leading tense discussions and building consensus around issues (Kirton, 1976).

A-I Theory (Kirton, 2003) divides individuals into cognitive styles on a continuum between adaption and innovation. Individuals with an adaptive tendency prefer more structure, while those with an innovative tendency prefer less structure (Kirton, 2003). Adaptors seek "better" solutions by suggesting more technically efficient ideas. Innovators seek "unique" solutions. Innovators will push the boundaries of the environment and often require the realignment of objectives or strategies to ensure success (Foxall, 1986; Kirton, 1999).

There are benefits and challenges to identifying and utilizing problem-solving styles in the realm of group work. Homogeneous groups, consisting of all adaptors or all innovators, are expected to collaborate easily and will likely experience success in narrow projects because they get along (Kirton, 2003; Lamm et al., 2012). However, success with larger, more ambiguous projects will become difficult for homogeneous groups to handle (Kirton, 2003; Lamm et al., 2012). When too little structure is present, adaptor groups will become inefficient and stuck because they long for direction. On the opposing side, when too much structure is enforced on a group of innovators, they become frustrated (Kirton, 2003). Innovators find themselves trapped by the limitations of structure and feel they do not have the ability to express themselves broadly to make the changes they perceive as necessary for success.

When heterogeneous groups (i.e., a mix of adaptors and innovators) are put together to solve small problems, they may experience communication issues as a result of differences in approach (Kirton, 2003). Adaptors often find innovators' ideas as lofty and intangible, while innovators find adaptors too structured and unwilling to explore possibilities that do not fit into their current paradigm. However, heterogeneous groups become more efficient when presented with large, complex problems because individuals exhibiting cognitive differences approach the different aspects of problem solving from unique perspectives. Innovators offer a surplus of "outside-the-box" ideas and adaptors are able to take those ideas, narrow them down, and determine what will work in the real world (Gokhale, 1995; Kirton, 2003). Therefore, it is expected that cognitively-diverse teams of opinion leaders would have an easier time building consensus around ANR issues.

Purpose and Research Questions

The purpose of this study was to examine how grouping by problem-solving style based on A-I theory (Kirton, 2003) influenced opinion leaders' ability to work collaboratively when progressing through Susskind's (1999) four steps of consensus building around an ANR issue. The purpose was guided by the following research questions:

1. How do groups of ANR opinion leaders progress through the consensus building process?
2. How do adaptor and innovator characteristics influence team dynamics of homogeneous and heterogeneous problem-solving style groups when consensus building?

Methods

The researchers used social constructionism to inform the design of the study because "while humans may be described, in a constructionist spirit, as engaging in their work and making sense of it, such a description is misleading if it is not set in a genuinely historical and social perspective" (Crotty, 1998, p. 54). The social constructionism perspective emphasizes that while humans are individuals, rarely are choices made without social influence (Crotty, 1998). Based on the research design, focus groups were chosen as the data collection method with the intent of capturing the social dynamics of consensus building (Chalofsky, 1999, p. 1).

Participants of AL programs were chosen as the population of interest based on their identified role as opinion leaders within the ANR industry (Kelsey & Wall, 2003). Alumni of AL programs nationwide are expected to work with one another and organizations to build consensus around critical ANR issues (Lamm et al., 2014). Therefore, a purposive sample of 30 AL program participants involved in the current class of the Wedgworth Leadership Institute at the University of Florida were chosen because they were recognized as emergent leaders within their respective fields of expertise (Lamm et al., 2014) and had an interest in pursuing larger leadership roles within their organizations, industries, and communities.

An agenda-building project was included as a component of the AL program for the purposes of this study. Prior to engaging in the agenda-building project, participants had the opportunity to become familiar with one another but had not yet worked in a group setting or come to consensus on an issue of importance. The agenda-building project was designed to simulate a real-life experience in which a participant may be put into a situation where they have to build consensus with whom they are familiar but had not previously engaged in a group process. In preparation for the agenda-building project, the participants completed an online questionnaire to identify three ANR issues they believed were most important in their state. The results indicated water, immigration, and agricultural regulations were the most important issues and served as the issues of interest. While taking the questionnaire to identify important issues, the participants also took the Kirton Adaption-Innovation Inventory (KAI) to assess problem-solving style (Kirton, 2003). The KAI consists of 32 Likert-type items that produce an overall score ranging from 32 to 160 (Kirton, 2003), with low scores indicating someone is more adaptive and a high score indicating someone is more innovative. Participant KAI scores ranged from 64 to 129, with 17 considered adaptors and 13 considered innovators.

For the agenda-building project, the participants were taught what an agenda was, how to build an agenda, how to discuss political topics with stakeholders, and the importance of communicating properly with decision makers. The participants were then divided into six small homogeneous problem-solving style groups based on their KAI scores. The adaptors were each randomly assigned to an adaptor group and the innovators were randomly assigned to an innovator group to ensure high and low scores within each designation were mixed among the groups. The six groups were given two hours to reach consensus while building an agenda. Three adaptor groups were each assigned water, immigration, or agricultural regulation, and three innovator groups were each assigned water, immigration, or agricultural regulation. The groups were given a worksheet that asked them to reach consensus on (a) defining the issue; (b) identifying what about the issue will most likely resonate with policymakers; (c) identifying specific tactics they would use with a policymaker; and (d) determining what they intended to do/say when a policymaker was open to, opposed to, or neutral in regards to their position.

At the conclusion of the first two hours, the adaptor homogeneous groups were paired with the innovator homogeneous groups to form three larger heterogeneous groups, each focused on a separate issue. Participants were told to reach consensus on their issue-specific agenda in a two-hour time period. Each team was required to have a PowerPoint presentation at the conclusion of the session to present to the entire group. The educators gave minimal guidance during the group project time.

Data Collection

Three focus groups were conducted, one with each of the heterogeneous groups, at the conclusion of the project. Each focus group lasted approximately one hour. All respondents were coded for confidentiality with a pre-assigned letter designating their problem solving style (i.e., A = adaptor group; I = innovator group), letter designating the issue they were addressing (i.e., W = water; I = immigration; R = agricultural regulation), and number based on the order they first spoke. Three moderators conducted the focus groups simultaneously.

During the focus group sessions, the moderators asked questions about (a) problem solving, such as, "How did you go about solving the problem you were faced with?" and (b) working in teams, such as, "Did team members approach the problem differently?" The moderators provided minimal input and allowed the conversation to flow naturally. Effort was made to gain input from all participants. The focus groups were audio recorded, transcribed, and compared with the recordings for verification and elaboration. Observations made by the moderators, interviews with the AL program educator, and participant open-ended reflective statements provided sources and methods to triangulate the data (Lincoln & Guba, 1985). Data from these sources were used to confirm the findings of the focus groups through a review process after data

analysis was completed but were not included in the results as data saturation was reached through the data obtained during the focus groups (Lincoln & Guba, 1985).

Data Analysis

Content analysis (Holsti, 1969) was used to identify themes related to consensus building to answer the first research question. The purpose of content analysis is to divide data into categories *a priori* based on a theoretical model, in this case Consensus Building Theory (Lincoln & Guba, 1985; Neuendorf, 2002). Themes were allowed to emerge surrounding the impact of problem-solving style on the consensus building process to answer the second research question. In order to address observer bias, two coders were used (Lincoln & Guba, 1985). To address personal bias, coders were chosen that did not have any contact with the focus group participants and were not familiar with the programmatic content. One coder was a postdoctoral assistant that was familiar with ANR issues and the other coder was a research assistant without a background in agriculture but extensive knowledge of qualitative analysis. The coders were aware that the groups were manipulated based on problem-solving style and reviewed generalities about Consensus Building Theory and A-I Theory together prior to reviewing the focus group transcriptions (Lincoln & Guba, 1985). To ensure trustworthiness, the coders identified patterns, themes, and relationships separately and then came together to reach agreement. An audit trail was kept to ensure trustworthiness and faculty mentors were used to discuss the coding process and results for peer debriefing (Lincoln & Guba, 1985). To ensure transferability of the data, background information on the participants was collected (Lincoln & Guba, 1985). The 30 participants for this study were all engaged in the Wedgworth Leadership Institute at the University of Florida with 40% of the participants being female and 60% being male, ranging in age from 27 to 55 years of age. Twenty-seven of the participants were White, two were Hispanic, and one was Asian.

Results

RQ1: How Did the Groups Progress through the Consensus Building Process?

Three themes were identified within the data based on the last three steps for consensus building: clarifying responsibilities and strategies, deliberation of issues and barriers to address issues, and decision and implementation (Susskind, 1999). The first step, convening, did not emerge as a theme but, upon reflection, the researchers noted they had completed the first step when they organized the groups.

Clarifying responsibilities and strategies. In order to clarify their responsibilities and strategies for the task at hand, participants reflected upon using resources, being affected by time constraints, dealing with the uncertainty of the activity, the merging of personalities, and the

development of team member roles. Participants discussed making use of information they learned as a part of their AL program and seeking outside information to clarify what they should be doing. IW1 said,

> It was difficult to start with the large amount of research collection that was needed and then to meld the other group's same consideration material into a presentation…But having [program presenter]'s theory, tips, and tactics was helpful.

IW2 said, "[IW1] wanted to pull from two or three websites that she knew of, [AW5] and her group got ahold of Farm Bureau…, [IW8] brought great pictures. You have to use all sources of information." The Immigration group indicated they had trouble using resources. AI3 said, "We didn't have enough available technical computers for us all." In response to a question about using additional resources, AI8 said, "That's what we didn't have time for. By the time we got there, I was freaking out a little bit because people were trying to look stuff up."

Participants in all three focus groups mentioned the time constraints as a barrier, particularly after merging into the larger group. AW5 said, "We had less time. Less time and more people…more opinions, more information." Suggestions were made to improve the time allotment of the activity. AI8 said, "I'd love to have an hour at the beginning for the small group and two hours with the big group." The time constraint affected what the group members were doing. In the large group, AI4 said, "Some of us had to stop talking so much just to get this done. Unless you totally disagreed with it, that's when people would chime in again." While some participants viewed the time constraint as negatively affecting outcomes, others viewed it benignly or even positively. IW8, who stepped into a leadership role, said, "I will step up and do stuff like that when I know we've got a deadline and I see craziness, but if we would have had a half a day, I would have sat back and just listened to [the group]."

A major issue for many of the participants was the uncertainty of the activity. II2 stated, "I wasn't clear on specifically what the outcome was." IR1 stated, "It was real like [confusing] in the beginning, I was like, 'Okay, where do we start? We really need to get organized, but I don't know what to say or know how to help.'" To get past this uncertainty, many of the participants wanted more information or a better explanation. AI5 said, "Additional information on what our end product should have been would have helped us…We wouldn't have spent as much time trying to figure out what we needed to do, doing what we did." A tactic for getting past the uncertainty was narrowing down the topic. IW9 stated, "Are we going to go this broad with it? No, you probably can't do that because you don't have the time to do that."

As a part of the clarifying responsibilities process, the groups had to deal with merging members' personalities. Overall, the variety of personalities and viewpoints were valued. AR7 said, "I think any time you do something like this, you're going to improve your problem-solving

skills just working with different personalities." While different personalities were valued, they could be problematic, particularly when the homogeneous groups merged to become larger heterogeneous groups. AW6 said, "We had formed that small group and whatever, and now you had to go, 'Okay, one more step.' You had to grow one more time, so it was almost like you were double processing again." One aspect of this merging of personalities was ensuring that everyone was listening and being heard. AW5 said, "We're all strong leaders and strong personalities, so I know that's a challenge for me." AR9 said, "I listen way too much. I need to get my opinion out there and let the rest of the people hear it, and they can take it."

The development of team members' roles within this stage was important to the consensus building process. The Regulation group spent the most time talking about the roles team members took. AR5 said, "When [IR2] got up and kinda took the lead, spearheaded it, everything kind of funneled that way." As for how roles were decided, IR2 said, "it was pretty natural. I don't know how that happened, but it kind of naturally fell. Everybody fell into place." AR9 responded to this, saying, "I can tell you how it happened in my opinion, you [IR2] getting up and taking the bull by the horns." The statements of roles and how they occurred were similar across groups. Different individuals filled different roles, and this was valued.

Deliberation of issues and barriers to address issues. When deliberating about issues and the barriers they needed to address, participants discussed narrowing down the issues to be more specific, incorporating the different perspectives of team members, and the merger of the small groups. Due to the broad nature of the issues, the groups narrowed down to focus on specific aspects of the issues. IR3 said, "It was such a big question…We tried four different ideas before we found the one we…ended up going with." Narrowing down involved taking into account the various perspectives and ideas offered by group members. IR2 said, "We just threw everything up on the board, figured, okay, if we can just get all the thoughts out there when we get together with the ten of us, we will be able to narrow it down." Part of this narrowing down process included components that would not make the final presentation. II9 said, "One of the things I thought was interesting was that a lot of the stuff we talked about didn't matter for the presentation."

Participants described that the main benefit of incorporating the different perspectives of team members was that it improved the discussion. AR6 said, "Brainstorming is more effective with a few more people." During the discussion process, group members were able to learn from each other. AW3 said, "I would never have put tourism with this…You know, there's so many things that were interrelated that we don't do a good job looking at others' perspectives." While sharing perspectives tended to be positive, it became contentious with the Immigration group. In particular, some of the group members had issues working with one of the adaptive members. AI6 said, "And at one point, we beat up on [AI5] pretty good because he is in the cattle industry, and he doesn't have the same labor needs that some of us have."

The merging of the small groups also had effects on the discussion process. Participants in all three focus groups remarked that the small groups were similar in their ideas. AR5 said, "The good part was when we joined with the other group, we made the comment that we had the same points." Despite the similarities, there were still difficulties melding the groups. IW9 said, "It was kind of like 'Are people arguing?' No, they're not arguing. They're sort of going past each other, not realizing they're saying the exact same thing, just phrasing it a little differently." The merger affected how some individuals contributed, including some who did not contribute as much. AR10 said, "You [AR9] were talking a lot in our smaller group, and then I noticed when we got into the bigger group, you quieted down again."

Decision and implementation. When discussing the decision and implementation phase, participants reflected on how they would act with policymakers and the process they went through to create an end product. The Water group had the most discussion about how they would act when meeting policymakers. For some of the participants, the process was viewed as a blueprint they could use when they travelled to Washington, D.C., later in their AL program. AR6 said, "Thinking about it, how's it going to be, what am I going to say? And this is a nice opportunity to be part of that blueprint to take with you and to prepare." Since the other AL program participants were going to use their product in Washington, D.C., the results were identified as important. AW5 said, "Whoever is the spokesperson, that we are all in agreement and we are all sitting there endorsing it because we are going to go in groups to visit our congressman." Part of this process for many participants was learning to understand the situation in which they would be operating, including the need to make an impression on the policymakers and the fluidity of policy situations. IW1 said, "We kept trying to think of how can we find and present information that makes it personal back home, affecting them and their responsibility to their constituents." IW2 said, "We have to be fairly realistic in the issue, though. Let's say we did go to Washington and something did happen fast there. And we had to change our direction…The urgency is real."

The Immigration group spent the most time reflecting on the process of consensus building; however, statements from other groups reflected an appreciation for the work that goes into the lobbying process. IW4, in talking about their current activity and prior experience meeting policymakers, said, "The lobbyists had already done all their work so it made me appreciate what the organizations do ahead of time." Participants also remarked about the differences between groups' final presentations. II7 said, "It was interesting to look at everybody's presentations because they were all a little bit different in the subject matter…Everybody had a different takeaway on what we were supposed to be doing."

RQ2: How Did Adaptor and Innovator Characteristics Affect Team Dynamics of the Homogeneous and Heterogeneous Groups?

The results for the second research question emerged as the coders reviewed the consensus building process. The emergent data broke down into three themes: diversity in perspectives on problem solving, comfort with ambiguity, and leadership roles.

Diversity in perspectives on problem solving. There were differences between innovators and adaptors in their perspectives on problem solving. The adaptors preferred narrower topics and incorporating more detail and structure into their discussions, as well as providing counter viewpoints to add depth. Innovators preferred broader topics and had more unstructured brainstorming in their small groups. The innovators also expressed fewer issues with the time constraints of the activity.

Participants' perceptions of the level of detail varied between adaptors and innovators. The adaptors reported being satisfied with the level of detail and thoroughness covered. AR5 said, "I thought we were very thorough in everything that we discussed. We definitely got all our ideas out there." The innovators tossed around ideas to be narrowed down later in the process. IR2 said, "It just started with 'Okay, throw it all out there; we haven't even researched this issue a lot. It's just based on what we know or, maybe, what we've learned along the way.'"

Participants also reflected upon their preferences for narrow versus broad topics, with adaptors preferring to have a narrow topic, while innovators were satisfied with broader ones. AW5 mentioned the struggles in the small group, saying, "We needed to get way down to one topic and not be so broad because you can't cover that broadness in the amount of time that congressman's going to give you." AI5 stated, "We gave up on trying to give a detailed, dumb answer and gave a vague answer." On the other hand, some innovators enjoyed keeping their answers broad, and one group even chose this specifically for its potential impact on a congressperson. IW9 said, "We need to go with a broader base that does affect us, and we can tell that story, but we can also pull in how it affects other people."

When in the large group, adaptors often provided counter viewpoints. Speaking of her behavior in the large group, AR10 said, "When the bigger group came together, I found that I was trying to do the opposite, 'Let's think about it this way,' or 'Don't forget about this.'" The Immigration group mentioned that two people played "devil's advocate" for the group, and both were adaptors. Some adaptors wanted more time for the large group discussions to meet their satisfaction. AI5 said if the group "could have had another hour" their answers would be more thorough. Some innovators, however, did not feel more time was needed. II9 said, "I don't think we need more time. I think you're going to take as much time as you're given."

Comfort with ambiguity. Both groups expressed confusion over the goals of the activity. For example, an innovator (IR3) believed the assignment would have been clearer and the task easier if the participants had "been told upfront, so they could create a blueprint." However, adaptors specifically expressed a need for additional information on several occasions. AI4 shared, "I think the challenge was to take this vague stuff and create something from it." AR7 said, "We spent a lot of time in the beginning just worried about whether we were doing it right," and AR10 said, "It was overwhelming to have that presentation. And to not glean everything from it that I needed, then have to go back and read my notes."

Leadership roles. In two of the three groups, the leadership role was taken on by an innovator with positive results. An adaptor took on the leadership role in the third group, resulting in conflict. IR2, who stepped into the role of facilitator for the Regulation group, received praise and appreciation for tackling this challenging role. Many of the members of this group mentioned how this role was not given, but she "stepped up" into the role. Describing her role, IR2 said,

> I think I was in a good position because I was kind of standing up so I could see everybody…It was good to kind of be able to stop and say, "Wait, so and so is trying to say something. Let's stop and let them finish their thought before you start.

In the Water group, another innovator was appreciated for stepping up to help the group move forward. IW4 said, "I think we were lucky that we had [IW8]…She's over there already working on stuff…and I think that's what really got us focused."

While innovators stepping into leadership roles helped facilitate the process for the Water and Regulation groups, an adaptor stepping into a leadership role caused tension in the Immigration group. II1 said they "butted heads." While AI5 took the leadership in typing up the presentation, there was tension when AI5 would not allow the presenters to dictate to him what they wanted to say. AI5 said he "couldn't see how [some ideas] fit into the presentation." Other group members said he was playing the "devil's advocate" and pushing the group to see other sides of arguments. This elicited frustration in team members, particularly for lengthening the discussion, which culminated in the group nearly running out of time.

Conclusions

While able to complete their task and progress through all four steps presented by Consensus Building Theory introduced by Susskind (1999), the uncertainty participants felt resulted in differing levels of success among the six homogenous groups. These results were consistent with prior literature using A-I Theory (Kirton, 2003), indicating adaptors held a preference for structure while innovators enjoy being unrestricted (Lamm et al., 2012). When the groups were

merged into the three larger heterogeneous groups, the diverse perspectives offered were valued but also caused tension. For example, the Immigration group faced challenges when an adaptive member would not listen to innovative members as they worked to develop their final presentation. Previous research has shown that communication problems arise when group members are working with individuals dominant in the opposing style because of differences in approach (Kirton, 2003). However, this finding differed from Lamm et al. (2012) that found heterogeneous groups were more successful at solving large-scale, ambiguous projects than homogenous groups.

While never explicitly discussed, leaders chose to step up without prompting in all three heterogeneous groups. Perhaps this was due to the selection process used for admittance to the Wedgworth Leadership Institute, with all participants identified as emerging leaders within their respective areas. In the Regulation and Water groups, innovators stepped into leadership roles and were perceived positively. In the Immigration group, an adaptor stepped into a leadership role, leading to difficulties when they discussed counter viewpoints. Because of these difficulties, the Immigration group indicated they did not fully explore all issues and interests before reaching consensus. While time was a barrier for all of the groups, only the Immigration group indicated it prevented full discussion. The Immigration group also had more difficulty organizing itself with an adaptive leader, likely affecting the ability to fully discuss different aspects of the presentation. Therefore, while Heller and Hollabaugh (1992) found diverse groups allow for the active engagement of all participants, the findings from this study show group structure (e.g., problem-solving style of the leader within a group) may also play a role in the group's ability to build consensus. It is possible innovators were better suited to be leaders due to the ambiguous nature of the task assigned matching their preference to be free of constraints and consistent with A-I Theory (Kirton, 2003).

It is important to recognize the limitations of the study in the interpretation of the results. Being qualitative in nature, the results can only be used to describe the participants of this study; therefore, extrapolation to a larger population is limited. In addition, the participants are all from one state AL program, limiting the findings to their experience.

Implications and Recommendations

Recognizing the limitations, the findings have implications for the development of AL programs, as well as for working within the ANR industry. The results imply AL programs may do well to incorporate educational experiences that identify and exacerbate problem-solving style differences so that participants can practice working with differing viewpoints. Within this study, the ambiguity of the problem impacted the innovators and adaptors differently. AL programs may want to incorporate situations in which the activity is vague or very explicit in order to draw out the particular strengths of innovators and adaptors. Minimizing ambiguity may

lead to more leadership activity amongst adaptors, while maximizing ambiguity may lead to more leadership activity amongst innovators, as was the case in this study. In addition, incorporating a reflection session would ensure participants maximize benefits and learn about the influences of problem-solving style on group interaction. Recognizing strengths and challenges in the moment could help participants gain a deeper appreciation for the diversity of approaches. They may also better understand when they should volunteer to lead a task and when someone with an opposing problem-solving style should lead the task.

To develop a broader understanding of the results from this study, another study examining the relationships between a leader's effectiveness in consensus building and their cognitive styles quantitatively should be conducted. Factors that could be addressed are a leaders' comfort with ambiguity and predetermined concreteness of tasks. This would also be an opportunity to measure perceptions of followers to better understand leadership in the context of consensus building around ANR issues.

Recognizing the contentious nature of many ANR issues (Grudens-Schuck, 2003), engaging in consensus building activities will help prepare participants of AL programs for leadership positions by increasing their sensitivity to divergent viewpoints when working with advocates, adversaries, and decision makers. Since opinion leaders within the ANR industry often work against one another (Chiarelli et al., 2010), an increased understanding of how to reach consensus, and take in multiple perspectives when doing so, should result in proactive conversations that bridge difficult issues. As a result, the ANR industry can make steps towards developing an industry-wide voice when speaking with decision makers.

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