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## **Abstract**

This study examined the concept of emergent leadership in self-managing groups through behaviors and perceptions of leadership. Communicative behaviors and perceptions of leadership in groups were conceptualized as unique forms of leadership in self-managing groups. The concept of emergent leadership was examined, adopting both self-reports and observational ratings in order to gain convergent validity through comprehensive measures. By adopting a statistical method called latent profile analysis (LPA), experimental self-managing groups were classified into distinguishable clusters. Then, group and individual level of antecedents and consequences of emergent leadership were examined in order to test the effectiveness of emergent leadership in self-managing groups.

First, conceptualization of emergent leadership was crucial because there were no comprehensive concepts appropriate to the context of self-managing groups. Understanding the spontaneous meetings self-managing groups hold, the current study adopted multiple approaches to examine emergent leadership behaviors and perception of leadership. Leadership behaviors that were observable regardless of designated leaders or members of the group were adopted. Interaction in small groups that occurred while solving certain tasks was assumed to be either task or relational communicative behavior. In addition, perceptions about how collectively leadership emerged in the group were conceptualized.

Second, in order to examine the emergence of leadership in these small spontaneous groups, an experiment was conducted by randomly assigning 116 participants to 31 groups. Interactions of group members were analyzed based on behaviors and perception of leadership using survey and video recordings. Two out-group observers rated behaviors of individuals based on recordings. On the other hand, perceptual aspects of emergent leadership were measured and rated by participants based on their experiences of group interactions.

Third, classifying leadership behavior and perception resulted in three distinct clusters of self-managing groups according to a statistical method of LPA. The clusters were named “Cluster 1: Medium Level of Leadership,” “Cluster 2: High Level of Leadership,” and “Cluster 3: Low Level of Leadership.” Three clusters of self-managing groups show how leadership can vary according to group context. Clusters were distinguishable mainly based on the degree and amount of leadership behavior and perception. Specifically, Cluster 2 had the highest amount of leadership behavior as well as the most positive perceptions of how well leadership was shared among members, whereas Cluster 3 had the lowest amount of leadership behavior as well as the least positive perceptions of collective leadership. Cluster 1 marked a medium level on most measures.

Fourth, in order to understand leadership of self-managing groups based on distinctive profiles of each cluster, various antecedents and consequences related to leadership were adopted for examination. Antecedents of emergent leadership included communicative competence,

while consequences of emergent leadership were used to show how successful collaborative groups function in terms of performance, cohesion and belongingness, and communication satisfaction. As a result, the current study found that communicatively competent people do not always make the most brilliant teams; rather, the behaviors and perceptions that are made within groups make qualitative group outcomes more outstanding. It has been proven that better teams are made with effort and behaviors that are elicited during interaction among team members, being less dependent on individual competencies. Therefore, implications are discussed in terms of the importance of leadership behaviors and perceptions of self-managing groups in organizations.

Finally, the present study suggests that individuals are strongly affected by group contexts of being self-managed. When individuals were situated in leaderless groups where fewer leadership behaviors are performed and roles do not seem to be shared collectively, they are likely to be discouraged to perform more leadership behaviors than other clusters of groups that have a high degree of leadership behaviors. Therefore, the well-known notion that communication competence contributes to group performance can be interpreted quite differently. In terms of group consequences, three distinctive clusters showed differences in group cohesion, showing that relational leadership behaviors positively affected social cohesion in groups. In addition, significant differences in group performance were not shown among groups; however, individual feelings of belongingness and communication satisfaction were affected by their

perception of leadership in the group. Results suggest that in self-managing groups, leadership behaviors are affected by group characteristics of leadership, whereas group cohesion is affected by those leadership behaviors that occur in groups. Overall, group characteristics influence individuals significantly when they are in leaderless self-managing groups.

**Key words:** *Self-managing Groups, Emergent Leadership, Communicative Leadership Behavior, Perception of Leadership, Communication Competence, Group Performance, Group Cohesion, Feelings of Belongingness, Communication Satisfaction*

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# **I . Introduction**

The spectrum of leadership has been changing along with the advent of various forms of teams and the changing nature of collaboration. A variety of teams and groups (i.e., virtual teams, self-managing teams, project teams, task forces, etc.) are created for different purposes, and they are no longer simply divided into designated leaders and followers. The advent of various forms of teams and cross-functional teams emphasize members collaborating toward shared goals. These teams consist of experts in different areas and collaborate to assemble their knowledge in order to make outstanding accomplishments regardless of position or power. As a result, members of teams created for specific purposes perform leadership as they collaborate, which expands the previous concept of leadership. Leadership is no longer limited to designated single leaders.

Currently, many organizations are recognizing the value of openly flowing communication among individuals and rejecting rigid forms of communication between leaders and subordinates. For instance, some companies use names or titles such as “manager” when they refer to each other, regardless of position and authority. These gestures reflect efforts to promote openness and increase the flow of communication within organizations.

In fact, a wider spectrum of development driven by imperatives of the economy and technology are increasingly affecting teams, especially in terms of how teams work and reach toward effective performance.

Specifically, the pressures of global competition, quickly shifting environments, and requirements of innovation are influencing teams to work with increased levels of collaboration and interdependence.

In a recent study of the changing ecology of teams, collaboration was defined as “team-like behavior over time and across projects,” which extends the definition of traditionally studied “teams” (Wageman, Gardner, & Mortensen, 2012, p. 301). A visible change in the ecology of teams and an advanced form of collaboration is demonstrated at Google. The world’s most leading multinational technology company has been adapting successfully by implementing its own method of management, from hiring to implementing leadership in its teams. The Senior Vice President for People Operations (HR), Laszlo Bock, cites “emergent leadership” as a way to describe how teams are managed to bring out their best (2015). With the experience of managing a massive global company with 60,000 employees, he was determined to say that he cares most about how members behave when there is no designated leader and how leaders emerge and fade, continuously rotating turns with one another. To be specific, when faced with a problem, the best performing member on a specific issue steps in and leads. At the same time, members know when to step back for another member to lead about the next specific issue. It seems that the absence of assigned leaders can bring out members who emerge as leaders and collaborate by performing diverse roles as a leader and simultaneously as a follower.

Google shows a new form of leadership performed by teams where

members collaborate together and rotate leadership roles according to the problems facing the group. Hence, a hierarchical form of leadership that assumes a leader and follower may no longer stand as the sole standard of success. What makes this kind of emergent leadership come about in these teams? In fact, one perspective is provided by Google.

According to an internal study by Google, four out of five respondents said that the most crucial factor of group performances was internal relationships within teams. In the study conducted by Google's HR employees, 200 Googlers from across 180 teams were interviewed in 2014-2015 about what distinguishes the most successful teams at Google. The finding of the study was that the dynamics of a team were more important than the competency of each member of the team. Among approximately 250 various kinds of dynamics they found, one of the most critically emphasized team dynamics was related to building relationships among members: establishing psychological safety and requiring reliability. When teams had satisfied these team dynamics of relationship, the team was significantly more likely to be successful.

Though the definition of being successful may differ, one can assume that high levels of creative ideas, consumer satisfaction, or productivity may have occurred. In fact, the case of Google is quite interesting because it provides evidence of how leadership has been changing along with the changing ecology of teams that extends the traditional definition of teams. Contemporary forms of collaboration are re-defining teams that used to have clear membership and distinctive roles of

leader and followers (Wageman, 2012). Leadership, therefore, is no longer a possession of a powerful single individual, but a collective property that emerges among members.

As much as the 250 team dynamics that Google has found contribute to its teams' best practices, leadership can also emerge differently from different forms of teams. Building on the case of Google, the current study attempts to conceptualize leadership that emerges in temporary self-managing groups. Self-managing groups are one of the new varieties of teams that veer far from the traditional top-down structure dominated by authority. Unlike traditional groups, self-managing groups are created temporarily to work spontaneously toward group goals. Therefore, the unique characteristics of self-managing groups reflect the shifting spectrum of leadership as well as the variety of teams.

Self-managing groups are defined as groups that exist for certain purposes and therefore are not permanent (Grawitch et al., 2003). As they are brought together for a common purpose, these groups do not have enough time to develop group norms concerning member interactions. However, these groups monitor and manage their own performance, make decisions related to their work, and take collective responsibility for meeting their own goals (Hollander & Offermann, 1990). Members in self-managing groups are more interdependent upon each other and possess more power because they take on roles that were previously performed by management (Pearce & Conger, 2003). Due to the unique characteristics of self-managing groups, leadership may emerge quite differently within them than in

permanent teams, which uncovers the changing ecology of leadership and teams as well.

In order to examine how leadership emerges within self-managing groups and whether they are effective, the current study observed interaction in experimental groups and tested both individual and group levels of influence and outcomes. Therefore, the study takes time to understand how leadership emerges from these groups and characterizes them with existing theories of communication and organizational behavior. There is no single formula that fully explains leadership or its influence on group success. However, learning how leadership emerges in self-managing groups increases the likelihood of making various collective groups achieve effective outcomes in the future.

The study examines emergent leadership in self-managing groups by using latent cluster analysis (LPA) to classify leadership in terms of behavior and perception. LPA is used to identify distinctive levels or patterns of leadership by identifying distinctive clusters in self-managing groups. Then, the study strives to identify some key factors that enable leadership in these groups, in relation to individual and group level of antecedents and consequences. The study takes on previous theories of communication and organizational behaviors specifically on communication competency, task competency of members as well as communication satisfaction, group cohesion, and group performance.

## **II. Literature Review**

### **1. Leadership Emerging in Self-Managing Groups**

#### **1-1. A Shift of the Leadership Paradigm**

Historically, to the degree that organizations were hierarchical, leadership models were hierarchical as well (Uhl-Bien et al., 2007). However, recently, a growing sense of tension in leadership research has argued that models of leadership designed for the past century may no longer be able to fully capture the dynamics of leadership of organizations in the knowledge-driven economy (Lichtenstein et al., 2007). In this perspective, self-managing groups represent the new paradigm of organizations that involve horizontal forms of collective leadership. Therefore, they serve as an predecessor to leadership emerging among members.

In self-managing groups, leadership is inevitably developed by the dynamics of each team. Members of self-managing teams are more likely to act in collective ways because all members are potential leaders and therefore are not discouraged from stepping in, due to its presumption as an informal collaborative group. As seen in the example of Google, members in leaderless teams step in and out as they perform leadership. Regardless of age, years of experience, or position, members are equally presumed as potential leaders who collaborate to reach outstanding results.

In fact, a common characteristic of leadership that is likely to emerge

in self-managing groups is described in a framework of complexity theory (Uhl-Bien & Marion, 2008). According to the theory, leadership can be “enacted through any interaction in an organization... leadership is an emergent phenomenon within complex systems” (Hazy et al., 2007, p. 2). Complexity theory that is applied in the study of leadership is called complexity leadership. Complexity leadership posits that structures of organizations can no longer be designed as linear and rationalized in order to meet optimal performance. Organizations need to adapt and function according to the complexity of the context where the leader and follower are no longer in simple exchange processes, but where members interact dynamically.

The complexity theory provides evidence that leadership needs to be conceptualized according to the dynamic interaction processes of self-managing groups. The group interaction process is a necessity to accomplish group goals in which members, tasks, and tools are coordinated (Kauffeld & Lehmann-Wilenbrock, 2012). Studies of leadership have been viewing leadership as an interaction process rather than merely the role of a powerful leader. Yukl (2006) defines leadership as “the process of influencing others to understand and agree about what needs to be done and how to do it, and the process of facilitating individual and collective efforts to accomplish shared objectives” (p. 8). Furthermore, leadership is viewed as “a process whereby an individual influences a group of individuals to achieve a common goal” (p. 3). These interactional views make leadership available to every member, which means that leadership is not restricted to a formally

appointed leader.

Though researchers have started to view leadership as a collective property shared among members of a group, conceptualization of the concept itself was not easy. Leadership was operationalized as the extent to which an individual is perceived by others to have emerged as leader (Anderson & Wanberg, 1991; Souza & Klein, 1995). Based on theories of complexity leadership and dynamic views of leadership, the current study briefly reviews how previous studies have started to conceptualize leadership in horizontal leaderless groups.

Some studies had members identify who was perceived as leader(s) and rate them on their leadership styles, such as transformational or directive styles (Pearce & Sims, 2002; Sivasubramaniam et al., 2002; Ensley et al., 2006; Hoch et al., 2010). Other studies adopted social network analysis to measure leadership as influence among members (Mehra et al., 2006; Carson et al., 2007; Small & Tentsch, 2010).

However, neither identifying the style of leadership of individuals nor the strength of influence explains leadership in self-managing groups comprehensively as “the process of facilitating individual and collective efforts to accomplish shared objectives” (Yukl, 2006, p. 8). It provides a one-sided view of leadership, either how leadership was performed by an individual, but not collectively; or whether members influenced each other, but both still not telling how.

Leadership styles originate from a paradigm of hierarchical teams

with designated leaders, and leadership roles are perceived as merely independent acts of individuals, leaving out interdependence among group members. In fact, leadership that occurs collectively among members may not have as much of an authoritative tone or powerful influence, but rather appear in forms of relational or task behaviors. Hence, studies argue that it is evident that each existing approach to leadership has certain drawbacks when applied to self-managing groups (Barry, 1991).

Moreover, social network analysis (SNA) does not carry enough information about what happened during an interaction. Studies have adopted SNA methods to measure the distribution of leadership in groups (Mehra et al., 2006; Carson et al., 2007; Small & Tentsch, 2010). Though these lines of studies were based on the ratings of each member, they did not have specific theories of leadership for measurement, merely focusing on the strength of mutual influence in groups. The method conveys only how much influence was distributed within the group.

## 1-2. Temporary Self-Managing Groups

The previous measures of leadership in leaderless groups capture individual acts but do not fully picture how interdependently they performed them or what behaviors were uniquely displayed. Therefore, unique team dynamics of leadership in self-managing groups still remain unknown. However, understanding leadership as a group property in self-managing groups is especially difficult because there is not enough research that has helped clarify it in these groups. The lack of research may have occurred

because self-managing groups do not last permanently and because they are implemented with considerable discretion in organizations despite the increasing levels of interest.

Furthermore, self-managing groups that existed in reality were not fully free from receiving management from organizations. Previous studies dealt with self-managing groups that had external leaders who supervised members (Manz, 1986; Stewart & Manz, 1995; O'Connell et al., 2002). In fact, external leadership performed by an individual who resides outside of the group influenced self-managing groups (Carte et al., 2006; Manz & Sims, 1987). However, studies suggest that there was no relationship between supervisory behaviors of external leaders and effectiveness of self-managing groups (Cohen et al., 1996). Instead, researchers found that internal focus on the behaviors of members was more crucial to performance (Cohen et al., 1996), suggesting that uncovering group processes of self-managing groups itself would be more insightful. Therefore, in order to observe emergence of leadership that originates purely from these groups, the current study adopts experimental groups that do not have a working history.

Considering that many studies have inevitably adopted existing self-managing groups in organizations (Kauffeld & Lehmann-Willenbrock, 2012; Pearce & Sims, 2004), experimental groups can provide a clearer picture of emergent leadership. The current study adopts the concept of temporary working groups because they enable pure examination of leadership originating from newly formed groups. Previously working groups may

reflect previous leadership patterns because they depend on working history and are affected by familiarity. However, new groups are more likely to display both relational and task behaviors simultaneously even though they should be busy solving their tasks (Barry, 1991). For instance, these groups may have to start off having a brief ice-breaking time in order to talk about the task in a more comfortable manner. As a result, the communicative behaviors of each member become noteworthy of observation because they are more likely to be acted upon in order to meet both relational and task-related needs of the group. Additionally, examining them can provide explanations of how leadership in self-managing groups is performed effectively despite their shortcomings as a temporary group.

### 1-3. Various Dimensions of leadership

While adopting self-managing groups is often productive for organizations (Lambe et al., 2009), the most common cause of insufficiency is poor leadership (Beyerlein, Johnson, & Beyerlein, 1996; Cohen, Chang & Ledford, 1997; Wageman, 2001). Empirical findings indicate that members in self-managing groups are advantageous in terms of group performance. On the other hand, there are concerns on the unclear nature of leadership in these groups that may cause over-management and under-management problems (Manz & Sims, 1984; Druskat & Wheeler, 2003). Therefore, there is still a debate on to what extent these groups may be effective. The current study acknowledges that the flexibility and autonomy of leadership in self-managing groups makes it hard to define and examine it directly. It seems

inevitable that depiction of emergence of leadership is supposedly vague.

However, the examination of these groups is crucial in that their interdependence among members and autonomy are likely to lead to best practices, but how this is achieved is not known (Wageman et al., 2012; Park, 2013). Numerous observations of both successful and unsuccessful self-managing groups show that group performance is at best when certain basic leadership behaviors are enacted according to the context and flow of interaction (Barry, 1991).

Leadership in a group that is supposed to “self-manage” itself may seem paradoxical. However, researchers have consistently found that effective leadership of self-managing groups is pivotal for their success (Kirkman & Rosen, 1999; Wageman, 2001). It is clear that leadership in self-managing groups displays unique characteristics compared to hierarchical groups. The characteristics do not convey novel concepts of leadership, but rather different quantity and quality of leadership compared to traditional forms of hierarchical leadership. Though leadership in self-managing groups is basically the concept of the absence of a designated leader, these teams fundamentally work differently. They are expected to be led by members who see a problem and step in to solve it. And after one has played his or her role, he or she steps out to yield the role to another member. Hence, leadership emerges when members display active communicative behaviors in the interaction process. Understanding communicative behaviors during interaction, therefore, is a critical factor in leadership of the current study.

The study notes that leadership in self-managing groups is managed by members who take responsibility for the working process and outcomes while sharing the role of leader (O'Connell, Doverspike, & Cober, 2002). Therefore, at the same time, how collectively people communicate to achieve group tasks is reflected in the leadership process. As in the example of Google, the best performing leaderless teams established psychological safety and high levels of reliability in terms of relational issues. Therefore, the current study primarily conceptualizes leadership through the communicative behaviors of members.

In addition to communicative behaviors, the current study adopts a group-level perspective to conceptualize leadership in self-managing groups. Admitting that communicative behaviors are shared among members while performing in groups, the study argues that leadership can be perceived by members, as well. Along with the measurement of communicative leadership behaviors, members' perceptions of how the group performed together become available. Perception of leadership is a group-level construct that shifts the concept of leadership beyond the focus of individuals (Wood, 2005), leading toward more holistic views of organizational entities.

In the small group context, leadership can be considered as a relational and collaborative phenomenon that brings members to influence each other by taking on different responsibilities (Woods, 2005; Souza & Klein, 1995). The key to perception of leadership in self-managing groups is observed via group interaction. This is due to the perspective of complexity

theory that “leadership is an emergent phenomenon within complex systems” (Hazy et al., 2007; Yukl, 2006). Group interaction is based on communication between group members (Kauffeld & Lehmann-Willenbrock, 2012); therefore, leadership can be conceptualized by perceptions via face-to-face interaction between members. Therefore, the current study conceptualizes leadership in self-managing groups by group-level perception of leadership as an interaction process.

In order to clarify the effectiveness of self-managing groups, the study examines experimental groups via individual sources (self-report) but also independent out-group observers (observer report). In fact, the current study adopts multiple methods to conceptualize leadership in self-managing groups. In fact, a study of convergent validity on a model of emergent leadership asserts that the use of two different methods of self-report and observation provides comprehensive understanding of the phenomenon (Anderson & Wanberg, 1991).

The use of observer and self-report has been receiving considerable support in gathering information about particular behavioral patterns. Previous studies have involved two different methods of measuring leadership. These measures invite a convergent validation model into research based on the belief that different sources of variation for measurement will converge and thus enhance reliability and validity (Anderson & Wanberg, 1991; Cronbach et al., 1972). The current study uses both methods in order to conceptualize leadership in self-managing groups that are expected to represent variations of leadership, and both may be

required to understand the leadership emergence phenomenon more comprehensively (Anderson & Wanberg, 1991).

## 2. Behavioral and Perceptual Conceptualization of Leadership

Regardless of whether a leader is pre-determined or not, leadership in self-managing groups can be conceptualized by communicative behaviors of leaders and perception of members (Yoo & Alavi, 2004). The current study uses the term *emergent leadership* in order to refer various leaderships that emerge in self-managing groups. Most of all, communicative behaviors of leadership are key elements of capturing leadership in self-managing groups.

### 2-1. Communicative Behaviors of Leadership

Communication processes are assumed to provide a key mechanism for advancing group development (Terrion, 2002). In fact, research has focused on the link between communication behaviors and group outcomes (Carte et al., 2006; Klaus & Bass, 1981). Various communication behaviors are often referred to measures of leadership as well (Bass, 1990; Barge & Hirokawa, 1989).

According to Putnam (1983), an interpretivist, the single or multiple meanings of a given situation are rarely static and obvious; they are to be continuously created and recreated via communicative action. Therefore, communicative behavior is critical to group processes since it is constructed

through constant interaction (Gergen, 1994). Acknowledging that communication provides a vital understanding of group processes, the current study analyzes communicative behaviors of group members.

In fact, performance of members in self-managing groups is assumed as communicative behaviors of leadership (Pearce & Conger, 2003) and how they manage their behavior in the group is a key concept of leadership that emerges in self-managing groups. Therefore, communicative behavior of members is observed in order to examine how leadership emerges in groups.

Previous studies have defined different communicative behaviors of group members and developed certain categories that were considered as leadership behaviors (Pearce & Conger, 2003; Bales, 1954; Waldersee & Eagleson, 2002). In a classic study of leadership behavior, certain behaviors were classified into categories of task or relational leadership (Yukl et al., 2002; Johnson & Johnson, 2000; Gronn, 2009; House & Aditya, 1997; Waldersee & Eagleson, 2002). The study describes each category of behavior more specifically.

#### *Task behaviors*

Behaviors that function to make progress toward task goals are called task leadership behaviors, work-oriented or goal leadership actions (Johnson & Johnson, 2000). It helps to accomplish group goals by asking for and coordinating information, summarizing, directing and organizing interactions. The main focus

of task leadership actions is developing interaction among members to complete group goals (Yukl, 1999; 2002; 2012). Members take on this role primarily to achieve tasks. Definitions of specific behaviors are provided below (Yukl et al., 2002). In an interesting qualitative study of emergent leadership discovered specific task-related behaviors which are initiator, scheduler, and integrator (Yoo & Alavi, 2004). Each of these behaviors was included in task behaviors of the current study as well.

- Comprehension check: asking others to summarize what the group has been discussing in order to ensure that they understand group decisions and comprehend conversations being discussed by the group. At the same time this task behavior does clarifying and checking on the progress and quality of work.
- Seeking information and opinion: ask for facts, information, opinions, ideas from group members in order to help the group discussion. This task behavior structures group members' behavior and include suggestions for how to solve the task.
- Summarizing: integrating related ideas or suggestions made by group members and summarizing major points from discussions. This task behavior includes monitoring operations and integrating various components of the task completed by other members.

- Direction and role defining: giving direction to the group by planning how to go on with the group work and by calling attention to the tasks that need to be done. This task behavior includes assigning responsibilities to other group members by determining how to use personnel and resources to accomplish a task efficiently.

When the responsibility of accomplishing tasks is shared evenly by members, members can work in a more cooperative fashion, having diverse opinions suggested by group members. A diversity of ideas contributes to build on each other's opinion and to solve tasks more effectively.

#### *Relational behaviors*

Functions that regard the relationships among members are called social-emotional leadership behaviors, person oriented or relationship leadership actions (Johnson & Johnson, 2000). This area of performance unite group members as a whole by listening carefully with respect, facilitating communication encouraging participation, alleviating tension, and assessing affective atmospheres of interaction action (Yukl, 1999; 2002; 2012). Leadership behaviors that help support relationships among members make feelings of belonging and shared purposes as a group, though self-managing groups are temporary. All of the behaviors of relational behaviors also called socio-emotional

leadership and relate to satisfaction of members (Johnson & Johnson, 2000). Below are definitions of specific behaviors (Yukl et al., 2002).

- Encouraging participation: encouraging members of the group to participate in group work while opening toward their ideas and letting group members know that their ideas are valued.

Supporting: acting considerate, showing sympathy and support when some is upset, providing encouragement and support when a task is difficult or stressful.

- Facilitating communication: helping communication between group members by using good communication skills and making sure that members understand what others say.

- Relieving tension: telling jokes and suggesting interesting ways to do their work in order to break the ice and increase the fun while working as a group.

- Process observing: observing the way the group is progressing toward group goals and using observations to help discussions and make members work better.

In order to identify task and relational leadership behaviors with more objectivity, independent observers evaluated behaviors of members during interactions. Experimental self-managing groups were collected to observe actual interaction. In fact, measuring leadership from an external

source was proved to be successful (Manz & Sims, 1987). The observer of group processes provides meaningful support by observing how the group is operating and used to evaluate group interactions when advising groups on performance (Levi, 2013). By using observations of video recordings, concerns about being unable to sufficiently or directly assess leadership can be diminished (Park, 2013).

Considering that actual leadership behaviors in groups constitute an important part of emergent leadership in self-managing groups, it is questionable whether relational or task communicative acts contribute differently to group interaction. According to a classic study of Bales' equilibrium theory (1953, as cited by Johnson & Johnson 2000), effective small groups maintain a balance between task and relational activities. In self-managing groups, task and relational communicative behaviors of leadership become stabilized and synchronized as they strengthen and support one another. In fact, a study of top managers in organizations proved that groups operated significantly more effectively when task and relational leadership behaviors were both performed (Walderssee & Eagleson, 2002). Therefore, the quality of leadership is achieved from balance of relational and task behaviors become crucial to emergent leadership.

Furthermore, it has been argued that effective leadership comes from high levels of both task and relational leadership in that "a vast majority of circumstances, strong doses of both types of leadership orientation are optimal" (Bass,1990, p.480). Such an approach assumes that an individual must perform all leadership behaviors. However, in this study, the

alternative is suggested: leadership behaviors could be shared among members of the group. Members who implement goals as they pursue relational goals and members who accept the need for facilitation as they pursue task goals are both critical to the effective operation of the group. Task and relational behaviors each have different purposes but serve together the needs of the group therefore, effective leadership comes from prominent doses of both pairs of action.

While researchers argue the differences between task and relational-oriented leadership behaviors, previous research emphasize the threads linking both leadership behaviors as well (Brown, 2003). A review of literature that examine leadership from dual perspectives reveal similarities as well as differences in characterizing relational and task leadership behaviors (Bass, 1990). In fact, both leadership behaviors influence together satisfaction of workers and motivation to pursue goals (House, 1970). Furthermore, research reveals that it is natural for leaders to exhibit both relational and task leadership behaviors (Bass, 1985). Therefore, the current study realizes both similarities and differences between the types of leadership behavior.

In addition, perception of group members can also be used to conceptualize emergence of leadership as well. Rather than relying merely on observations of leadership behavior, it is important to check whether members perceive a group level of collective influence of leadership. In the next section, leadership is conceptualized by another dimension: group members' perception of leadership.

## 2-2. Perception of Leadership

Self-managing groups operate according to how much leadership functions were collaborated among members (Benne & Sheats, 1948, p.41). Therefore, an ideal concept of leadership is when responsibilities are evenly shared among members. In fact, mature groups share leadership roles evenly (Benne & Sheats, 1948). And a legitimate way to measure how leadership has emerged in the group is by asking members through their experiences in groups, that is, perceptions of leadership.

Average score of perceptions on leadership in each group are used to verify identification of emergent leadership (Yoo & Alavi, 2004). Each member rates leadership on a variety of perceptual items. In previous studies, leadership perceptions are measured on items indicating the amount of contribution to task performance, the level of leadership in groups, and the extent to which control was exerted and influenced group members (Pescosolido, 2001). Following a method used by Lord & Alliger (1985), measurements of leadership perceptions rated by members were averaged.

The current study adopted a study demonstrating multiple dimensions of leadership which are perceived through experiences leadership behaviors of members (Woods, 2005). If communicative leadership behaviors were close to looking at the trees, the perception of emergent leadership is like looking at the forest to gain insight for understanding group phenomena holistically. As perception of leadership come from direct experience of interaction with members, the current study

adopts a holistic view that describes leadership shared by members. According to the study (Woods, 2005), emergent leadership as a whole can be featured into four dimensions: joint completion of tasks, mutual skill development, decentralized interaction, and emotional support. Each dimension is described below.

- Joint completion of tasks: When members display behaviors in concert with each other, it reflects an aggregated style of behaviors that influence others (Barker, 1993 cited by Woods, 2005). Moreover, without the presence of any supervisor or designated leaders, group members participate autonomously by performing specific roles to collaborate within the team (Kennerly, 1996; Porter-O'Grady & Wilson, 1995; cited by Woods, 2005). A group is viewed as having joint completion of tasks when the group develops a common view about how leadership is distributed among members, recognizing to include every member in the process.

- Mutual skill development: Group members learn certain job skills from each other which is the act of helping others. Diversity between members increases the ability of groups to come up with creative ideas and build on one another's ideas. Moreover, group members take time to appreciate the ideas of others and recognize the strengths of each member. For example, when a member suggests a psychological view concerning the task, another member with economic views can learn to adopt different perspectives on the same task.

- Decentralized interaction: When shared leadership occurs in self-managing groups, there is no one member who decides everything but members performing as equals. Group members participate in the group process by building consensus and often shifting responsibilities of leadership upon each other(Fielding, 1999). Communications in groups that share leadership have multiple emergent leaders to shift their roles according to the needs of the group rooting from lateral relationships among members.

- Emotional support: Group members encourage each other by having patience and experiencing a connection from one another. Interdependence of tasks that require levels of relational developments contribute to building connectivity and social support for one another. When members recognize and compliment members of their efforts and encourage each other, higher goals may be more likely to be accomplished. Furthermore, it may lead to facilitation of confidence in members as a group.

In the current study, members of the group are assumed to experience four dimensions of sharing behaviors of leadership. These measures represent a general impression of collective interaction among members as an aggregated manner through experience of being part of the group. In conclusion, leadership in self-managing groups is conceptualized both by communicative behaviors and perceptions concerning collective actions of sharing leadership. In order to improve reliability and validity of the leadership model, the current study adopts two different measurements

of self-report and observer report in measuring both behaviors of members and perception of leadership as a group. As a consequence, the multiple dimensions of leadership in self-managing groups are conceptualized by total of four measures: observed leadership behaviors and perception as well as self-reported leadership behaviors and perception.

### 3. Group-Level Analysis of Clusters

The study analyzed characteristics of each cluster in order to identify what might have caused differences between each cluster. The clusters of self-managing groups are examined in relation to communicative competence, group performance of task, group cohesion, and communication satisfaction. The current study adopted group level constructs in order to examine relationship with various dimensions of concepts of leadership in self-managing groups (leadership behaviors, leadership perception, both measured by self-report and observation). While group performance result was produced by members together at once, other factors are aggregated values collected from individuals: communication competence and group cohesion.

It is important to note here that there are measurement issues surrounding what happens when lower-level variables are aggregated to represent higher level constructs. It is not surprising since aggregation issues are central to scholars who specify and test relationships between constructs at different levels of analysis (Bliese et al., 2007). In addition, a challenge

lies in the need to identify ways to measure group-level processes directly (Sampson et al., 2003). Challenging views of using aggregated values, however, include the need to identify the underlying theoretical group-level processes reflected in aggregating individual level variables. Although there are important conceptual differences between lower levels and higher group levels, most measures rely on the mean for representing the higher level construct. Additive models use sums or means of lower units (individuals) to represent constructs at a higher level (Kozlowski et al., 2013).

The current study continues investigation based on the assumption that using individual factors in social contexts reflect psychometric and biological research with excellent statistical properties (Sampson, 2003). And that group level measures may be able to reflect group characteristics. Therefore, the current study addresses measurements of aggregated constructs (means) in order to represent group characteristics.

There are a number of factors that influence the emergence of leadership. These factors primarily reflect characteristics of members in self-managing groups, such as task ability, task competence, and goal commitment (Souza & Klein, 1995). Other various factors that have been noted to influence emergence of leadership are intelligence, personality, gender, and encouragement (Hollanderm, 1978; Kenny & Zaccaro, 1983; Hemphill 1961). However, there are not many studies that have examined communicative competence in relation to leadership emerging in self-managing groups (Carte et al., 2006; Riggio et al., 2003).

### 3-1. Antecedents of Leadership in Self-Managing Groups

#### 3-1-1. Communicative Competence of Self-Managing Groups

Effective communication is especially crucial in self-managing groups since various roles of leaders are conveyed during interaction. Self-managing groups do not have any experience of working together or knowledge about the group task which makes spontaneous interaction more crucial. When solving a problem or making a decision effective communication enables not only understanding of objectives of a task, receiving and sending messages related to tasks, but also initiating relationship among members. Consequently, communication competence of groups is related to task and relational behaviors of leadership.

Previous research on leaderless self-managing groups found that leadership emerges through certain leadership behaviors regarding group task and relationship between members. In fact, communication scholars have stressed that “leadership occurs through the process of interaction and communication” (Barge & Hirokawa, 1989, p.172) and that it is embedded in the communication process. Therefore, communicatively competent groups perform leadership effectively in which they engage through conversations, share emotions, give effective presentations, and make good decisions.

While studies of leadership have stressed characteristics of

individuals in the past, recently leadership in self-managing groups stress collective efforts (Riggio et al., 2003). In the current study, leadership is conceptualized by various dimensions of communicative behaviors and perception of leadership that are measured both by self-report and observer ratings. The collective behaviors of members in these groups are aggregated in group levels.

In a group interaction where members collaborate as potential leaders, communication competence of groups itself may not be as influential. What is more influential is how much groups perform leadership and share them collectively to accomplish goals. For example, groups that do not possess high communicative competence can serve more leadership behaviors and have high levels of perceived leadership while more competent groups may not necessarily serve more leadership behaviors.

In addition, clusters that are distinguished by various dimension of leadership may not have consistent patterns between observations and self-reports as well as actual behaviors and perception of leadership. Moreover, groups may have the same aggregated mean while having differences among members. However, it is unclear whether groups with more differences between members or higher similarity between members will perform better when they have the same aggregated group means. In order to answer whether communicative competence will differ according to different kinds of leadership, the current study suggests a question. Will there be significant differences between the clusters of self-managing groups identified by latent profile analysis?

*Research Question 1:* How does the level of communicative competence differ among the different types of self-managing groups in each cluster?

### 3-2. Consequences of Leadership in Self-Managing Groups

#### 3-2-1. Group Performance of Self-Managing Groups

When leadership emerges, self-managing groups work toward their goals making consequences for both groups and members themselves. The outcomes that are one of the most recognized in the organizational communication literature are group performance and group cohesion (Stigall, 2005). As this study addresses group performance and small group cohesion as group level consequences, each represent quantitative and qualitative outcomes of self-managing groups.

Studies have shown that group performance is related mostly to communication (Ancona & Caldwell, 1992) and leadership (Scott & Bruce, 1994). Therefore, communicative behaviors and perception of leadership are inevitably related to group performance. However, it is unclear whether self-managing groups that display different levels of leadership will have distinctive group performance results.

The study adopts a survival task that requires multiple skills from coordinating their own answers to reaching a single decision as a group. In fact, the survival task is an ultimate decision making task of groups. It is conducted through emerging behaviors in communicative processes

(Hirokawa & Poole, 1996). And various factors such as cooperative behavior have predictive effect on decision-making in self-managing groups (Ceschi, Dorofeeva, & Sartori, 2013). Therefore, individual's task competency as well as how well they integrate each other's opinions to reach agreement is crucial to accomplishing the survival scenario.

Decision-making of groups has received a lot of attention in fields of psychology, management and economics in the past century (Ceschi, Dorofeeva, & Sartori, 2013). It is generally recognized nowadays that the relationship between members' competency and decision making performance of groups is more complex than it was originally considered to be (Sartori & Ceschi, 2012). The current study focuses on the communication process that occurs while solving group tasks in order to specify relationship between group performance and leadership in self-managing groups.

In fact, some studies have established that strong relationship between members improve group performance (Sparrowe, Liden, Wayne, & Kraimer, 2001). However, not much is focused on specifying what kinds of behaviors are performed by members in self-managing groups (Carson et al., 2007; Pearce & Sims, 2002; Ensley et al., 2006; Kickual & Newman, 2000). The specific behaviors that strengthen relationship among members need to be identified. Moreover, studies on consequences of emergent leadership showed that groups with more overall levels of leadership are more likely to have higher performance when situated with interdependent, ambiguous, and complex tasks (Carson et al., 2007; Pearce & Sims, 2002; Ensley et al.,

2006). As a result, the relationship between group performance and leadership behaviors is in need of specification and additional research attention. Consideration on the type of task is crucial as well. Therefore, the current study focuses on explaining the how and whys of how group performance with communication theories on leadership behavior.

The current study examines the relationship between group performance and its main drivers, which are task and relational oriented leadership behaviors. In order to do so, definition of group performance is suggested beforehand. Group performance is often used as quantitative measures of a group's ability to effectively manage their interactions (Small & Rentsch, 2010). Studies suggest that emergent leadership would have positive effects on group performance (Riggio et al., 2003; Souza & Klein, 1995; Hollander, 1985). That is, when leadership emerges in a certain way, the group is more likely to work effectively.

In a study where groups with and without emergent leaders were compared, groups with emergent leaders performed significantly better than others without them (Riggio et al., 2003). Emergent leaders tend to perform leadership behaviors related to task and relational issues (Yukl et al., 2002; Gronn, 2009; Waldersee & Eagleson, 2002). Like other interactions in groups, emergent leadership behaviors tends to occur on the basis of social exchange processes which are assumed to produce favorable outcomes for the group.

Specifically, task leadership behaviors tend to develop interaction

among members to complete group goals by taking on roles such as assigning asks, explaining responsibilities and task objectives, integrating various components of tasks, and managing resources to accomplish tasks effectively (Yukl, 2002; Johnson & Johnson, 2000). On the other hand, relational leadership behaviors assist group members to unite as a whole by listening carefully to each other, facilitate participation, and show empathy and support during interaction (Yukl, 2002; Johnson & Johnson, 2000). Both of these behaviors are expected to contribute to supportive atmospheres that promote group members to cooperate better as well as work effectively.

However, it is also highly likely that group performances depend on the type of task and the extent to which leadership behavior is required. The current study adopts a classic survival scenario commonly adopted for group communication and decision making exercises. People get intensely engaged as they proceed since survival stakes are high and none of the decisions are easy to make. The survival task requires decision making processes that integrate resources of group members in order to increase productivity (Gully et al., 2002).

Previous literature on task characteristics argues that it shapes team interaction process by moderating the relationship between interaction and their performance (Stewart & Barrick, 2000). And especially, the survival task requires not only knowledge related to survival but also flexibility and open communication among members. Therefore, consensus may be hard to reach unless members perform cooperatively to consider diverse views of one another. Participants are able to agree on each ranking of items

necessary for their survival since every group member is required to come up with answers of their own before the group discussion. As a result, group performance necessarily involves individual competency as well as coordinating efforts of groups.

Groups that work together well tend to share thoughts and ideas, and are expected to produce improved scores over individual scores. As groups head towards the end, communication and decision making processes are made through active discussions regarding the task. It is noteworthy that getting the exact right answers are important, however, cooperating and listening to other's ideas is as important in order to do so.

In order to fully recognize the type of task of the study, a brainstorming group activity was compared. It is well known that individual competency toward tasks are crucial than working together in brainstorming (Paulus & Brown, 2007; Bass, 1980). Here, when group members exchange ideas in order to come up with new solutions for tasks, social interaction in groups may rather hinder performance. On the other hand, leadership behaviors of members can enhance group performance when it conforms to requirements embodied in tasks (Tschan, 2010). In fact, the survival simulation tasks have been adopted frequently to observe emergent leadership (Johnson & Johnson, 1990; Kickual & Newman, 2000).

In addition, comparing a discussion-based survival task to an assembly task clarifies the reasons for choosing such task. Assembly task requires, for example, groups to make as many assembled copies of pencil

boxes with a stack of pencils, nuts and bolts (Riggio et al., 2003). This kind of task does not necessarily require leadership. Unlike brainstorming or assembly tasks, survival tasks elicit interdependence among members during group discussions and promote leadership behaviors. Therefore, the study adopts survival tasks as a way to measure group performance due to its nature of assuming greater opportunity to demonstrate leadership behaviors.

However, it is still unclear whether increased levels of discussion and leadership behaviors will necessarily contribute to scoring higher group scores of the task. Too many ideas produced at once can blur important issues or diffuse concentration of members, often hindering precise decision-making. Group performances require key problems to be solved by developing and adding on to each other's ideas as well as listening and considering about them. That is, both task and relational leadership behaviors are required in order to perform group goals.

It is still clear that task leadership behaviors keep the group to accomplish its goals efficiently through various activities which are required by the survival task. In fact, most positive problem-focused, procedural, and action-oriented communication behaviors increased team productivity and success (Kauffeld & Lehmann-Willenbrock, 2012). Due to limited time of group activities, members are more likely to focus on solving the task at hand by clarifying goals and specifying working methods for the group. And considering the fact that each member had time to solve the task on their own beforehand, the group discussion is less likely to lead to chaos.

Therefore, the more members are encouraged to participate, observe their interaction, and solve interpersonal problems the group will more likely to work hard and therefore better on tasks.

On the other hand, relational behaviors also contribute to group performance by strengthening relationship between members (Sparrowe, Liden, Wayne, & Kraimer, 2001). In fact, relational behaviors are found to be positively related to group performance in that task leadership behaviors performed without relational leadership behaviors can influence performance by reducing motivation to work on the task (Bass, 1990; Fleishman & Harris, 1962). Warkentin et al (1997) proved that the strength of relational links among members was positively associated with how effective the tasks are performed. Furthermore, groups that had more positive attractions among members of each other had less social loafing (Karau & Williams, 1997). Considering that self-managing groups are not ready-made and newly formed, positive relationships are likely to influence group atmosphere positively. Groups that express more support, acceptance, and liking for other members and promote open discussion in order to resolve disagreement is hard to have poor performance.

Therefore, both task and relational leadership behaviors can help reach optimal group performance. That is, the more actively members participate in both leadership behaviors, the more they are likely to reach toward best decisions for the group. Groups that are classified into distinctive clusters will have differences in their performance since they will have different degrees of leadership behaviors. The study hypothesizes as

follows:

*Hypothesis 1:* Distinctive clusters of emergent leadership will not all have the same level of group performance.

### 3-2-2. Group Cohesion of Self-Managing Groups

As more various notions of teams and teamwork receive considerable attention by organizations, developing concrete measures that address underpinnings of work groups become crucial. In this sense, group cohesion is a sound measure to discuss such group phenomena. Group cohesion is defined as “the total field of forces which act on members to remain in the group” (Festinger et al., 1950, p.164) and considers the group as an entity in itself. It represents the degree of integration of members and the total sum of forces that bond members (Mullen & Copper, 1994; Hogg, 1992). Cohesiveness is perhaps the most thoroughly investigated group level affective construct in organizational research (Kelly & Barsade, 2001). To reflect the group level construct, the current study uses aggregated perceptions of group cohesion from members.

When members are able to communicate and coordinate their actions effectively, as a result, the ability of the group to work together increases making the group being cohesive (Day et al., 2004; Beal et al., 2003). Likewise, members of cohesive groups are more likely to adapt to the group’s goals and decisions, positively affecting a group’s social interactions. In fact, it is widely accepted that cohesive groups are more willing and likely to work cooperatively together as a group and share commitment to

accomplishing tasks (Casey-Campbell & Martens, 2009; Gully et al., 1995). Therefore, self-managing groups that display leadership cooperatively and interact actively will be more likely to be cohesive.

Historically, leadership has been considered as an important driver of group cohesion (Morgeson et al., 2010). In fact, groups that performed leadership together reported higher levels of social integration compared to teams with designated leaders (Pearce, Yoo, and Alavi, 2004). The underlying rationale is that leadership in self-managing groups creates a more trusting and comfortable environment to express ideas that enable interactive influence among one another compared to commands and instructions of single leadership (Bergman, Retsch, Small, Davenport, & Bergman, 2012).

However, cohesion is defined commonly as a two-dimensional construct of task and social cohesion in small groups (Bettenhausen, 1991). Task cohesion is the commitment or attraction to the group task itself (Hackman, 1976; Beal et al., 2003; Chiochio & Essiembre, 2009) that is shared by the group including the inspiration to cooperate as a team for its goals (MacCoun, 1996; Beal et al., 2003; Chiochio&Essiembre, 2009). On the other hand, social cohesion is a social construct that is aggregated by interactions between people while sharing the feelings of liking or attraction (Bettenhausen, 1991; Evans & Jarvis, 1980), enjoying being with others, spending time together, and having emotional bonds of friendship within a group. Lott & Lott (1965) state social cohesiveness as “that group property which is inferred from the number and strength of mutual positive attitudes among the members of the group.”

In addition, Tagiuri (1985) suggested a like-dislike dimension of ratings among members of a small group since evaluation people during interaction is always present and therefore becomes a determinant factor in the group process. Putting group cohesion altogether, self-managing groups that actively perform leadership behaviors and collectively participate on leadership will be likely to receive more positive evaluations than groups that have less behaviors and perception of leadership while working together. Therefore, the study hypothesized as follows:

*Hypothesis 2:* Distinctive clusters of emergent leadership will not all have the same level of group cohesion.

The current study views that two dimension of cohesion will each relate with task and relational leadership behaviors. In fact, cohesiveness may occur in different types. Self-managing groups that have high levels of task leadership behaviors may not necessarily feel interpersonally attracted to one another. In the same sense, high levels of relational leadership behaviors in groups are less likely to contribute to having interest and commitment to the task itself. People may like each other but may not commit to their tasks, strong connections may not exist but people may still feel good performing the task itself, or people may find each other attractive and feel real commitment to the task as well. As groups work through their tasks, members pull together related opinions or ideas of members and ask each other to ensure shared understandings of progress of the task. Such task leadership behaviors are more likely to lead to task cohesion, sharing attraction to the group task which includes the inspiration to cooperate and

accomplish the goal as a group. Therefore, the study hypothesizes as follows:

*Hypothesis 2-1:* Task leadership behaviors will positively affect task cohesion.

As group work through their relationships, members warmly encourage members of the group to participate, open up for diverse ideas of others, and help communication between members by using appropriate communication skills. Such relational behaviors are more likely to lead to social cohesion, contributing to making strong connections among members as well as emotional bonding. Therefore, the study hypothesizes as follows:

*Hypothesis 2-2:* Relational leadership behaviors will positively affect social cohesion.

Cohesion is in fact known to emerge as teams develop during their interaction and are likely to increase when members work together for more periods and after they have accomplished goals (Karu& Hart, 1998). Therefore, cohesion is important especially to small temporary groups that have just started interaction. Cohesion is important especially to small temporary groups that have just started interaction. Self-managing groups of the current study are randomly tied up people to accomplish certain group goals (Grawitch et al., 2003). It is natural for these groups to have a hard time to adopt appropriate joint and individual attitudes than teams with working history (Tidhar, 1993). However paradoxically, it may be easier for these small temporary groups to be cohesive when members communicate effective leadership behaviors.

Though newly formed self-managing groups leave no possibility of working together in the future, it is worthwhile to observe how leadership behaviors influence the most thoroughly investigated group level affective construct in organizational research (Kelly & Barsade, 2001).

Group level constructs of performance and cohesion were investigated in relation to leadership behaviors. In the next section, individual constructs of communicative competence, feelings of belongingness, and communication satisfaction will be examined in relation to their membership to distinctive self-managing groups and leadership behaviors.

#### 4. Individual-Level Analysis of Self-Managing Groups

The current study analyzed individuals by their behaviors and perception of leadership and tested whether they had meaningful relationships with antecedents and consequences of leadership. Apart from group level constructs, individuals' communication competence is an antecedent of leadership behaviors whereas feelings of belongingness and communication satisfaction are unique consequences of behaviors and perception of leadership in self-managing groups. Three individual level concepts are examined in relation to membership to clusters as well.

## 4-1. Antecedents of Leadership in Self-Managing Groups

### 4-1-1. Communicative Competence of Individuals

Basic communication competency and skills of individuals are related to effective communication in groups. Effective communication is about saying the right things at the right time, which can be referred to as 'quality' of communication. In addition, having personal characteristics such as extraversion, sociability, or talkativeness seem to relate to 'quantity' of effective communication. Members who are most qualified in groups were operationalized as being communicatively competent and were expected to emerge as leaders (Carte et al., 2006; Anderson & Wanberg, 1991). Therefore, both quantity and quality of communicative competence are important features of leadership.

As mentioned in the paragraph above, communicative competence of individuals can be predictive of leadership behavior. Therefore, qualitative and quantitative aspects of communication are especially crucial in self-managing groups where designated leaders are absent. Previous studies have emphasized the importance of competency of communication especially in collaborative group contexts (Johnson & Johnson, 2000; Jablin & Sias, 2002).

Communication competence has an overarching conceptualization that it is the ability to select a communicative behavior that is appropriate and effective to the situational context (Spitzberg & Cupach, 1984). And it has been reviewed earlier by Stogdill (1974) with leadership that

emphasized the importance of communicative competence in both emergence and effectiveness as leader. And later on, apparent connections between communicative competence and leader effectiveness have been made by scholars of leadership (Riggio et al., 2003; Bass, 1990). Jablin & Sias (2001) has described the importance of communication competence the following: “It is elusive, fuzzy nature does not make it easy to study, but if competence is as fundamental to the study of organizational communication as many scholars claim, then we need to keep our eyes, ears, and minds open when pursuing research in this area.”

In fact, theoretical perspectives of communication competence and leadership communication have much in common in that they are both goal-centered approaches to interpersonal communication. Considering that conceptualization of leadership in self-managing groups of the current study consists of communicative leadership behaviors and perception of leadership, competency of each individual relates to their communicative leadership behavior. In self-managing groups, performing plentiful and adequate communication influence group interaction processed mainly through leadership behaviors. And leadership behaviors are performed as an aspect of competence. In fact, communicative competence of individuals that is conceptualized in this study emphasizes the interpersonal and intrapersonal aspects of communication (Kim, et al., 2011).

Interpersonal communication competence governs conversational skills, empathy, and relatedness and intrapersonal communication competence governs emotional control and impulse control. The ability to

understand other people and interact with them is conducting effective conversations by emphasizing and connecting with others. On the other hand, the ability to understand oneself and manage one's emotion and behavior relate to behaviors of how an individual can control one's emotions and behavior. These individual competencies relate to the integrated theoretical approach of communication behaviors and leadership which are task and relational behaviors (Barge, 1996). Task behaviors are messages that are purposed to coordinate the activities of the group while relational behaviors are messages that are purposed to maintain interpersonal relational climate of the group (Barge, 1996). Therefore, when individual are better at understanding and controlling one's behaviors and emotions, it is more likely that they will display more appropriate behaviors for others when they cooperatively work toward their goal as well as initiating relationships. And when individuals are better at engaging in conversations and presenting their thoughts in front of others, it is also more likely that they will be better at persuading others, helping others to understand their own thoughts, and making connections with others during interaction.

Therefore, it is clear that members with higher communicative competency will perform more leadership behaviors than those who are not. Though members may perform both task and relational leadership behaviors, it is also possible that members can focus on either one. For example, when one member is leading conversations with setting appropriate task goals, another member might as well support the group with socio-emotional behaviors. In order to determine the role of communicative competency of

members that plays in leadership behaviors, the study hypothesizes as follows:

*Hypothesis 3:* Individual communicative competence will positively affect task and relational leadership behaviors.

However, as individuals not only belong to a group but also distinctive clusters that have different leadership characteristics, the unique characteristic of behaviors and perceptions of each cluster may influence how individuals perform their leadership. The context of each group as well as uniquely shared characteristics of each cluster can affect individual behavior in terms of how other members participate and perform leadership.

For example, when members belong to a cluster of groups with low perceptions of leadership on how jointly the tasks were performed, the competent individual may not be motivated enough to perform sufficient leadership behaviors. On the other hand, the same individual may be likely to be motivated to perform more leadership behaviors when they are in groups that participate jointly on tasks and mutually develop each other's skills. Therefore, in order to test the relationship between membership of cluster and leadership behaviors of individuals, the study suggests a hypothesis as follows:

*Hypothesis 4:* Task and relational leadership behaviors of individuals are affected by their membership to clusters.

## 4-2. Consequences of Leadership in Self-Managing Groups

The intention of current study seeks to provide a better understanding of the importance of individual leadership behavior and perceptions as well as develop discussions that provide testable hypotheses to determine whether leadership in self-managing groups positively influences individual outcomes such as feelings of belongingness and communication satisfaction. The consequences that are most recognized in the organizational communication literature and most essential to consider are group cohesion, which we handled in group-level analysis, and individual satisfaction and belongingness which we are handled below.

### 4-2-1. Feelings of Belongingness of Individuals

As mentioned above, group cohesion in groups is a necessary part of collaboration either for social or task-related behaviors. Though social psychologists defines cohesion in considerably varied ways depending on the domain in which it is studied, a good definition is “generally considered as the group members’ inclinations to forge social bonds, resulting in the group sticking together and remaining united” (Casey-Campbell & Martens, 2009, p 223). In fact, belongingness and cohesiveness are similar but have different focus. While group cohesion is focused on evaluations about the group’s performances, belongingness is a more personal measure about one’s feelings and attitude toward the group. In the current study, in order to determine individuals’ feelings of belongingness, measures that taps into

individual attitudes towards the group were used (Bollen & Hoyle, 1990).

A feeling of belongingness originates from a cohesiveness measure that fits appropriately to individual perception in small working groups. It is perceived by members of the group and defined as “an individual’s sense of belonging to a particular group and his or her feelings of morale associated with membership in the group” (Bollen & Hoyle, 1990, p.482). In a setting of small groups, such as self-managing groups, perceived cohesion is transformed into individual perceptions about whether the member really felt as a part of the group.

When an individual performs leadership behavior, it is perceived by other members on the extent to how leadership is collectively processed towards accomplishing task goals. Regardless of ones’ performance of leadership behavior, one may feel that the group had a connection created among members and prefer to remain together as a group if they had another chance to become a group. Perception of leadership in self-managing groups comes from the experience of holistic leadership performed by members (Woods, 2005). Especially in self-managing groups the more groups jointly coordinate tasks, develop skills mutually, and emotionally support each other, members are more likely to feel membership and that they actually belong to a group.

Despite the fact that these groups are temporarily and newly gathered, the more chance to initiate and develop relationships among members and collaborate on tasks, each individual may feel strong

belonging as a group altogether making the group cohesive. Therefore, the feelings of belongingness are likely to be influenced by perception of leadership that makes the group more collective. The study hypothesizes as follows:

*Hypothesis 5:* Individuals' perception of collective leadership will positively affect their feelings of belongingness.

Specifically, among leadership behaviors, relational leadership behaviors promote feelings of belongingness by strengthening interpersonal ties between members. In contrast, task leadership behaviors are problem-focused procedural communications that mainly contribute to serve the purpose of exchanging information and solving problems. Vice versa, relational or socio-emotional leadership behaviors do not contribute directly to the achievement of goals (Kauffeld & Lehmann-Wilenbrock, 2012). But instead they encourage participation, facilitate communication, relieve tension, observe processes, solve interpersonal issues, and express support and liking of members.

In fact, during team meetings in organizations, teams spend considerable amount of time communicating relational-focused messages. And especially when teams are new, they have a need to get to know each other and later establish mutual trust, positive relational communication is more essential compared to permanent teams (Kauffeld & Lehmann-Wilenbrock, 2012). While performing relational leadership behaviors, social bonds may be forged that cause members to feel as part of the group.

Therefore, especially in temporary self-managing groups, relational leadership behaviors are critical in creating feelings of belongingness.

Therefore, the study hypothesizes as follows:

*Hypothesis 6:* Relational leadership behaviors of individuals will positively relate to their feelings of belongingness.

However, individuals not only belong to a group but also to distinctive clusters that have different characteristics of leadership. The uniqueness of each cluster influence individuals on how much membership and belongingness members may feel as a part of a group. The context of each group as well as shared characteristics within clusters is likely to affect individuals' feelings toward the group, whether they are willing to remain as group members for future group activities. For example, when a member belongs to a cluster of groups with low level of perception of leadership and leadership behavior of members, the same individual who performs certain relational leadership behavior may be less likely to feel belongingness toward their group than when with another cluster of groups with higher level of perception and behaviors of leadership. On the other hand, the same individual who is part of a group where they participate jointly on tasks and mutually develop each other's skills may be more likely to feel belongingness and hope to remain in the group even though one has not performed much relational behavior. Therefore, in order to test the relationship between membership of cluster and individuals' feelings of belongingness, the current study suggests a hypothesis as follows:

*Hypothesis 7:* Individuals will feel higher levels of belongingness to their groups when they are in clusters with more leadership behaviors and perception on collaborative leadership.

#### 4-2-2. Communication Satisfaction of Individuals

Communication satisfaction has been broadly defined as an individual's satisfaction with various aspects of communication in three distinctive contexts of interpersonal, group, and organizational communication (Muller & Lee, 2002). In the organizational context, satisfaction is a general concept that concerns the communication and feedback between members and supervisors, coworkers, and among departments. Communication satisfaction is not only a way to assess group performances qualitatively, but also a way to increase members' ability to perform beyond expectations (Kandlousi et al., 2010). That is, when an individual is satisfied with communication, it is more likely that they perform better.

Communication satisfaction is one of the most recognized qualitative outcomes in the organizational communication literature and therefore essential to consider in small group interaction (Stigall, 2005). Communication satisfaction is in fact directly related to task and relational elements that are recognized in leadership behavior. Group communication satisfaction is positively influenced by openness, interaction involvement, frequency, feedback and quality of messages, participation in decision making processes, and higher receptivity to ideas and information (Anderson & Martin, 1995; Mohr & Sohi, 1995; Wheelless, Wheelless, &

Howard, 1984).

Various factors that influence satisfaction of members seem to relate to communicative behaviors as well as the perception of how well members evenly performed leadership. When members of the group share their ideas effectively, promote others to participate, and exchange information skillfully, individuals may feel satisfied. Therefore, task and relational leadership behaviors as well as perception of leadership influence individual communication satisfaction.

In order to do examine how individuals perform and perceive communication behaviors, the study focuses on a group context where communication among members reflect satisfaction on the flow of conversation and accuracy of messages (Muller & Lee, 2002; Pincus, 1986). Though communication occurs in an interpersonal context, satisfaction carries a personal meaning in that even the same people working in the same team and condition may feel differently (Engin & Akgoz, 2013). The study focuses on individual satisfaction of communication toward the group influenced by experiences of interaction among members which result in perception of leadership in their groups.

In fact, research in group literature has indicated that emergent leadership is performed with efforts to balance functional and affective concerns (Barge, 1996). What leadership successfully promotes is the functioning of collaborative groups (Kickual & Newman, 2000). Functioning of self-managing groups can therefore be indicated by

communication satisfaction enabled by fluent and effective communication of leadership. However, when an individual experiences plentiful leadership behaviors of group members, they may be more likely to be satisfied with overall communication processes compared to another individual in a group with less participation and collaboration among group members. Therefore, the study hypothesizes to test whether individuals feel different higher levels of communication satisfaction according to the characteristics of leadership behavior and perception in clusters.

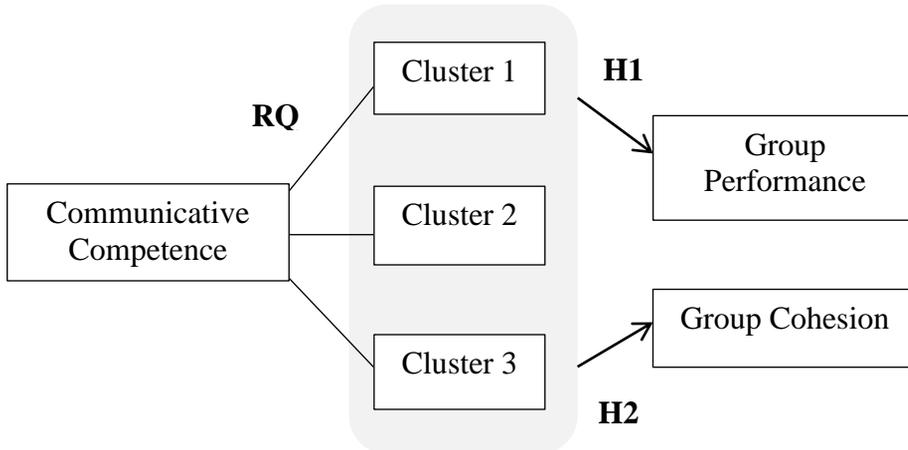
*Hypothesis 8:* Individuals will feel higher levels of communication satisfaction when they are in clusters with more leadership behaviors and perception on collaborative leadership.

It becomes evident that communication satisfaction relies on how openly interactions were held as well as how horizontal members had participated in solving the group task (Muller & Lee, 2002; Anderson & Martin, 1995; Mohr & Sohi, 1995). Therefore, perceiving a high level of perception on how collectively the group has performed leadership roles may affect each member's satisfaction regarding the communication process. The current study tests a hypothesis whether perception of leadership is able to predict communication satisfaction. The study hypothesizes as follows:

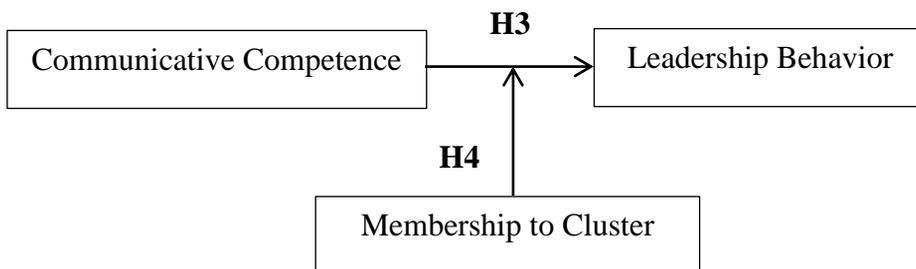
*Hypothesis 9:* Communication satisfaction is affected by individual's perception of leadership.

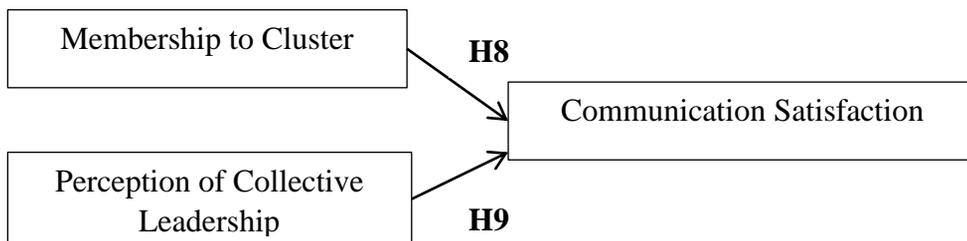
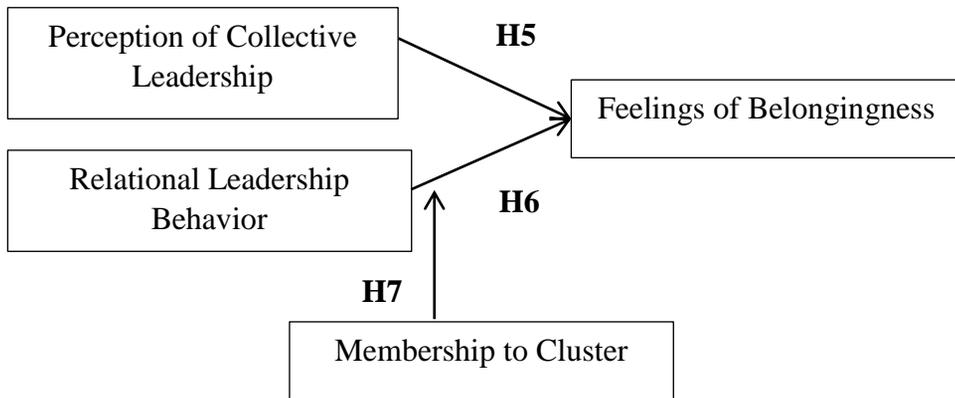
### III. Research Model

<Group Level Analysis>



<Individual Level Analysis>





## **IV. Method**

### **1. Participants**

This study reports the results of a laboratory study of 31 work groups (N=116). Participants were collected online via a university student exclusive website. The sample was 49% male (57 men and 59 women) and three to five members comprised each of 31 groups gathered for the current experimental study. Participants were randomly assigned to each group.

### **2. Procedure**

Upon signing up for the experimental study, participants were informed that they would take part in a group interaction and engage in solving a group task. Four chairs were arranged in a semicircle, each of two chairs facing a video camera. Before the task was given, participants sat on a table with a setting that made participants face each other. A PANAS survey asking about their current moods were given as they sat. After completing them the instructor gave out group activity sheets and told them to solve problems by themselves. First, participants were given approximately 10 minutes to work on the survival task alone and were asked to rank items in order for survival. Participants were told that they were to try to get close to rankings provided by survival experts. After 10 minutes, the group was instructed to discuss their answers and come up with a group

answer within 20 minutes. This entire period was videotaped by two video cameras. The group was instructed that they were responsible for leading discussions and that the experimenter could not provide any help. Individuals were expected to start cooperating by sharing their own answers and led to producing a group-level outcome. Afterwards, the identical survey checking their mood after interaction were distributed along with questionnaires of communicative competence, shared leadership, leadership behaviors, and communication satisfaction. The study examines group interaction through video recordings as well as surveys in order to gain a comprehensive view of shared leadership as a group level.

### 3. Measures

#### 3-1. Conceptualization of Leadership in Self-Managing Groups

##### 3-1-1. Communicative Behaviors of Leadership

Leadership questionnaires were used both on surveys distributed to participants as well as two independent observers of the study. The observers rated groups through video recordings. Two observers matched their measures up to 85% reliability of their evaluations and evaluated all video recordings for 31 groups together. The study adopts two major studies that present *Understanding Your Leadership Actions* (Johnson & Johnson,

2002) and *Hierarchical Taxonomy of Leadership Behaviors* (Yukl, 2002; 2012) and comprised them into task and relational leadership behaviors with a total of 8 items (4 task, 4 relational). Considering the context of experimental self-managing groups, some items were adjusted for the current study.

Each item of the leadership behavior measure described a leadership action and rated 5 if you always behave that way, 4 if you frequently behave that way, 3 if you occasionally behave that way, 2 if you seldom behave that way, and 1 if you never behave that way. A total of 12 items were tested for internal consistency by using Cronbach's alpha. In the process an item was omitted and 0.746 of alpha was achieved. Categories leadership behaviors are adopted from both studies (Yukl et al., 2002; Johnson & Johnson, 2000) presented in the table.

### 3-1-2. Perception of Leadership

The emergence of leadership experienced by members was assessed by the Shared Leadership Perception Survey (Woods, 2005). The items were derived from several theories that consists multiple dimensions of shared leadership in a group (Porter-O'Grady and Wilson, 1995; Hiller, 2002). The survey was made by Woods (2005) to measure the level of shared leadership experienced by real operating management teams. Therefore, the current study modified instruments to better capture the phenomenon in temporary self-managing groups of an experimental setting. The original 19 items of

shared leadership instrument were modified into 12 items in order to adjust them to the context of temporary experimental groups. Measures were used to collect responses of a 5-point likert scale with the following responses: 1 (definitely not true), 2 (not true), 3 (neither true nor untrue), 4 (true), 5 (definitely true). A total of 12 items were tested for internal consistency by using Cohen's alpha. In the process an item was omitted and 0.746 of alpha was achieved.

### 3-2. Group and Individual-Level of Analysis

#### 3-2-1. Communicative competence

The current study adopts a recent study on components of communication competence that focuses on competence of oneself and in relationship with others (Kim et al., 2011). The research identifies both interpersonal and intrapersonal intelligence as comprising the concept of communicative competence. Interpersonal intelligence refers to the ability to understand other people whereas intrapersonal intelligence is having an understanding of oneself, of knowing about oneself and what one is capable of (Gardner, 1993). Specifically, interpersonal intelligence is the ability to exchange and understand other people's behaviors. Intrapersonal intelligence refers to the ability of self-oriented communication, which is the ability to understand about one self and manage one's emotions and behavior.

The concepts that belong to the understanding of oneself include

emotional control and impulse control, whereas the ability to act upon others consists of conversational skills, empathy, relatedness (Kim et al., 2011). Impulse control means to take control of one's actions and responses by knowing how to limit oneself and decide what is better for the situation. Emotional control means to monitor one's emotional state and take control of negative emotions as well as promoting positive ones appropriately. These two factors form the dimension of communicative competence based on oneself since they both come from understanding oneself well. On the other hand, unlike knowing oneself, the ability to act upon others is to deal with others in communication by having effective conversation, the ability to emphasize, and connect with others relationally (Kim et al., 2011). A total of 29 items were measured and used to collect responses of a 5-point likert scale with the following responses: 1 (definitely not true), 2 (not true), 3 (neither true nor untrue), 4 (true), 5 (definitely true).

### 3-2-2. Group Performance

Group task measures task competence of individuals and group performance. The task was adopted from the "Lost at Sea"<sup>1</sup> survival scenario. Initially, group members solved the task on their own which were measured as task competence. Then, group performance was measured after

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<sup>1</sup> The copyright of the "Lost at Sea" is owned by Grahame Know licensed under a Creative Commons Attribution of non-commercial works 3.0 (CC-BY-NC-ND 3.0)

members had discussions and gather their answers. Studies that had observed group performance showed that groups spent a greater proportion of their time on verbal communication and regulating the process of communication while solving the survival task than other tasks, such as assembly task (Riggio, et al., 2003). In conclusion, the nature of the survival task enabled discussions, giving the group greater opportunity to perform communication acts.

The group score was calculated based on evaluative schemes of the survival scenario. The task was rated excellent-6 (scores: 0 to 25), good-5 (scores: 26 to 32), average-4 (scores: 33 to 45), fair-3 (scores: 46-55), poor-2(scores: 56-70), very poor (scores: 71 and over). The scores were calculated by how much scores were deviant to the answers provided by the scenario. Therefore, the lower the scores, the more they were close to the answers. This group score was able to show how well groups solved their tasks together. Below is an abstract of the survival scenario.

You have chartered a yacht with three friends, for the holiday trip of a lifetime across the Atlantic Ocean. Because none of you have any previous sailing experience, you have hired an experienced skipper and two-person crew. Unfortunately in mid Atlantic a fierce fire breaks out in the ships galley and the skipper and crew have been lost whilst trying to fight the blaze. Much of the yacht is destroyed and is slowly sinking. Your location is unclear because vital navigational and radio equipment have been damaged in the fire. Your best estimate is that you are many hundreds of miles from the nearest landfall. You and your friends have managed to save 15 items, undamaged and intact after the fire. In addition, you have salvaged a four man rubber life craft and a box of matches. Your task is to rank the 15 items in terms of their importance for you, as you wait to be rescued. Place the number 1 by the most important item, the number 2 by the second most important and so forth until you have ranked all 15 items.

### 3-2-3. Group Cohesion

Two survey instruments were used to measure belongingness that comes from a scale of Perceived Cohesion Scale (PCS) (Bollen & Hoyle, 1990) and group cohesion (Hung, & Gatica-Perez, 2010). Self-managing groups being temporary and having no history of acquaintance in the study, concise items were adopted for belongingness: “Do you feel you were really a part of this group?” and “If you had a chance to do the same kind of work again, how would you feel about moving to another group versus staying in the same group?” Social cohesion asked for answers such as “The members of the group formed feelings of rapport” and task cohesion asked for answers such as “Each member shared enough time to contribute to the task.” Measures were used to collect responses of a 5-point likert scale with the following responses: 1 (definitely not true), 2 (not true), 3 (neither true nor untrue), 4 (true), 5 (definitely true).

### 3-2-4. Feelings of Belongingness

A survey instrument that was used to measure group cohesiveness for virtual teams was adopted to measure feelings of belongingness of individual members (Warkentin et al., 1997). Self managing groups being temporary and having no history of acquaintance, items for feelings of belongingness is rather concise and right to the point. It asks “Do you feel you were really a part of this group?” and “If you had a chance to do the same kind of work again, how would you feel about moving to another

group versus staying in the same group?”

### 3-2-5. Communication Satisfaction

Communication satisfaction involves satisfaction regarding information flow and quality of interaction in groups. Among the various dimension of the construct, the study chose dimensions of supervisory communication and co-worker communication (Pincus, 1986). The measure is about perceptions of communication in the group that has been summed up by individual's satisfaction. Among 8 items they ask the extent to agreement to statements such as, “The group is open to ideas,” “The extent to which horizontal communication with other members is accurate and free flowing,” or “The extent to which informal communication is active and accurate.” These items were used to collect responses of a 5-point likert scale with the following responses: 1 (very much unlikely), 2 (unlikely), 3 (normally), 4 (likely), 5 (very much likely).

### 3-3. Data Analysis

Latent Profile Analysis (LPA) was used to derive categorical latent variables that represent clusters of groups who share similar profiles of emergent leadership (Lanza, Flaherty, & Collins, 2003). LPA is an empirically driven method that defines clusters of individual or groups based on common characteristics. LPA uses all observations of the continuous variable to define clusters through maximum likelihood estimation (Little & Rubin, 1987). The probability of a group to be properly

classified into a cluster, which enables each group to be classified into the best-fitting cluster, is estimated with the overall model. Models are estimated with clusters are added iteratively to determine which model is the best fit to the data (Mera & Roesch, 2011).

For this study, LPA was conducted using Latent GOLD 4.0 (Vermunt & Magidson, 2000). Each solution was evaluated using multiple criteria: statistical indices, classification quality, ease of interpretability, and match to theory (Distephanos & Kamphaus, 2006). To determine the optimal number of clusters for the sample, each model was evaluated using Akaike information criteria (AIC; Akaike, 1974) and Bayesian information criteria (BIC; Schwarz, 1978), and entropy measures were measured across different cluster solutions. The AIC and BIC are descriptive fit indices where smaller values indicated better model fit.

After substantive interpretation of each cluster from the optimal-fitting solution, ANOVA and correlations and were used to examine associations between clusters of groups as well as relationship with various individual factors within each cluster. And note that behavioral measures of leadership were rated both by participants themselves and outgroup observers. The multiple measures are expected to reveal interesting findings about whether measures of others and self converges to enhance validity or not.

In conclusion, each cluster consists of distinctive self-managing groups categorized by a total of 24 variables of leadership behaviors and

perception, each rated by 12 categories from both measures made from observation and self-report. Task leadership behaviors are (1) ) direction and role definer, (2) summarizer, (3) information and opinion seeker, (4) comprehension checker. Relational leadership behaviors are (5) communication facilitator, (6) tension reliever, (7) encourager of participation, and (8) process observer. Lastly, perception of leadership are (9) joint of tasks, (10) mutual influence, (11) emotional support, (12) decentralization. Previous studies have employed similar multiple categories when they conduct LPA statistics (DiStefano & Kamphaus, 2006; Pastor et al., 2006) and therefore the present study implemented both measures of self-reports and observational measures identically into the model.

## **V. Results**

### **1. Latent Profile Analysis of Leadership in Self-Managing Groups**

In the current study self-managing groups were classified into clusters using latent profile analysis based on dual conceptualizations of leadership in the study. Classification of groups by various dimensions of behaviors, perception, and two different measurements by observation and self-report enable analysis of various characteristics of self-managing groups in relation to individual and group level constructs. In the group context, emergent leadership can be seen as a relational, collaborative leadership process or a phenomenon including group members who mutually influence each other (Stigall, 2005). The key is that the group as a whole participates in the leadership process and therefore the concept of leadership becomes fluid and emergent. As each group can have unique form of leadership according to the action of members, the current study emphasizes the need to capture different forms of leadership in self-managing groups that are distinguishable in terms of behavior and perception of leadership. In order to do so, the study uses a statistical technique that enables apprehension of different type of leadership that emerges in self-managing groups.

The study adopts a statistical method named latent profile analysis (LPA) that classifies self-managing groups by different dimensions of

leadership as a latent variable: observer and self-report ratings on leadership behaviors and perception of leadership. LPA is a latent variable modeling technique known as latent cluster analysis (Vermunt & Magidson, 2002). The term 'latent' refers to the latent variable that conveys the categorical variable of cluster membership. The object of LPA is to identify clusters from observations that reflect the similar values of groups or individuals. The latent categorical variable has  $K$  number of clusters, representing a value of groups that is thought to cause the levels on the observed cluster indicators (Pastor et al., 2007).

The main difference of LPA and traditional cluster analysis is that LPA is model-based. In traditional clustering techniques, people are assigned to clusters on an all-or-none basis (Distefano & Kamphaus, 2006). Most of all, due to the subjective nature of cluster analysis, it is hard to synthesize results using the method. Therefore researchers evaluate a model-based cluster analytic technique of LPA as offering a much rigorous criteria for choosing the number of clusters (Pastor et al., 2007).

However, there are yet no studies that used LPA to examine and classify group profiles of self-managing groups. Studies identified whether a distinctive form of leadership existed or not and to what degree it influenced group outcomes. Furthermore, studies revealed that LPA suggest membership to each cluster by showing a certain degree that meets the optimal fit. Although the modal assignment of groups to clusters results in a group being classified in only one cluster in LPA, the entropy statistic and classification table in LPA can be used to examine the degree to which this

classification is accurate and most fit for data.

It is acknowledged that leadership in these groups cannot be easily conceptualized and examined since it is a dynamic and substantive phenomenon. Therefore it is treated in terms of theoretical assumptions that are indirectly supported by conceptual arguments and statistical indicators (Kozlowski et al., 2013). Moreover, constructs that support aggregated data of higher level representations from lower level measurement of emergence are based on well accepted “rules of thumb” with associated statistical justifications (Bliese, 2000). The dual conceptualization of leadership in self-managing groups is an important factor, yet missing, on how it can be classified into a number of distinctive clusters. LPA is therefore expected to distinguish differences in leadership of groups and clarify its relationship through group level analysis.

Thus, the purpose of the current study was to add on to previous literature of small group interactions by using external observations and an advanced statistical technique of LPA, by identifying a number of distinctive emergent leadership types in self-managing groups. In order to address this issue, the current study uses leadership behaviors and perception to test whether self-managing groups do have distinguishable types of leadership. A total of 12 variables (4 task leadership behaviors, 4 relational leadership behaviors, and 4 perceptions of leadership) were used in the analysis. LPA, the statistical method is expected to show specifically how meaningful differences of leadership appear among self-managing groups.

## 2. Classification and Verification of Self-Managing Groups

The latent profile analysis began by extracting two latent clusters and adding successive clusters to the solution until additional clusters could not be extracted (Vermunt & Magidson, 2002). Models of LPA solutions are shown with model fit indices for each LPA in Table 1 (The table lists up to five solutions).

**Table 1 Model Fit statistics for 1 through 6 clusters for Latent Profile Analysis (LPA)**

Number of clusters		Fit statistics		
Solution	AIC	BIC	Entropy	
2	1334.030	1247.00	0.998	
<b>3</b>	<b>1082.607</b>	<b>1223.14</b>	<b>0.9998</b>	
4	1232.120	1232.80	0.9997	
5	1224.910	1254.97	0.9976	

*Note.* AIC= Akaike Information Criterion, BIC=Bayesian Information Criterion

The fit information suggests that smaller AIC and BIC values indicate a better fit and entropy values closer to 1 indicates higher accuracy of cluster membership. Based on fit of models, solution of 3 clusters was the most optimal solution. The 3 cluster LPA solution was named from investigations across the estimated means and variances for the set of 24 variables that describe multiple dimensions of leadership in self-managing groups.

**Table 2 Latent Profile Analysis: Estimated parameters of means**

Dimensions of Leadership	Cluster 1: Medium- level of Leadership	Cluster 2: High-level of Leadership	Cluster 3: Low-level of Leadership
Observed measures	(n=15)	(n=10)	(n=6)
<i>Task leadership behaviors</i>			
(1) Direction and role definer	3.6	4.1	2.9
(2) Summarizer	3	3.8	2.7
(3) Information and opinion seeker	3.2	4	2.6
(4) Comprehension checker	2.6	3.1	1.9
<i>Relational leadership behaviors</i>			
(5) Communication facilitator	3.7	4.2	3.1
(6) Tension reliever	2.6	3.7	2
(7) Encourager of participation	2.8	3.5	2.1
(8) Process observer	3.2	3.9	2.5
<i>Perception of leadership</i>			
(9) Joint tasks	3.8	4.8	3.3
(10) Mutual influence	3.6	4.9	2.5
(11) Emotional support	3.4	4.8	2.4
(12) Decentralization	2.4	1.3	3
<b>Self-reported measures</b>			
<i>Task leadership behaviors</i>			
(13) Direction and role definer	3.4	3.3	2.9
(14) Summarizer	2.2	2.5	2.1
(15) Information and opinion seeker	3.1	3.6	2.9
(16) Comprehension checker	2.5	3.1	2.6
<i>Relational leadership behaviors</i>			
(17) Communication facilitator	3.4	3.4	3.2
(18) Tension reliever	2.4	2.6	2.2
(19) Encourager of participation	2.6	3	2.3
(20) Process observer	2.8	3.1	3
<i>Perception of leadership</i>			

(21) Joint tasks	4	4.2	4
(22) Mutual influence	3.5	3.6	3.1
(23) Emotional support	3.3	3.3	3.4
(24) Decentralization	3.5	4.3	3.3

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Latent profile analysis answers with a classification of groups into three clusters, each representing Low, Medium, High level of leadership in groups. Description for each cluster is described by a total of 24 variables of leadership behaviors and perception, each rated by 12 observation and self-report measures.

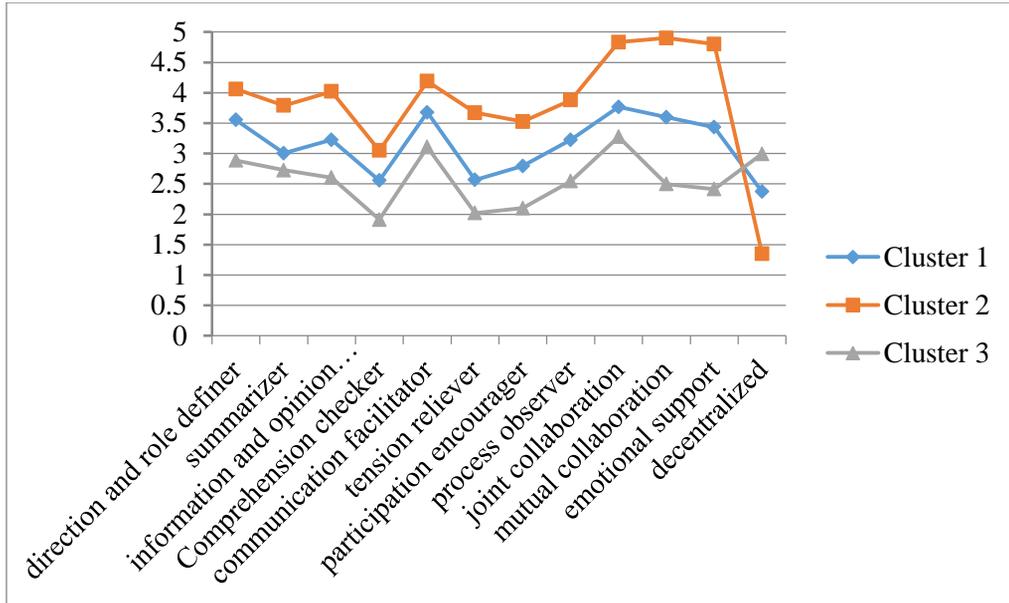
Cluster 1 (n=15, 50% of sample) was named “Medium-level of Leadership” based on the mean profile of the set of variables on emergent leadership. This cluster of groups has mid-levels of observed and self-reported perception and behaviors of leadership among clusters. Overall, the cluster has moderate level of leadership emerged compared to other clusters. As a medium level of leadership, this cluster keeps its balance steadily among measures of observations from (1)-(12) on Table 2. However, self-reported measures on (13) direction and role definer, (17) communication facilitator, and (23) emotional support showed high levels rather than medium levels. Furthermore, (16) comprehension checker and (20) process observer rated lowest among all clusters.

Cluster 2 (n=10, 30% of sample) was named “High-level of Leadership” based on the mean profile of the set of variables on emergent leadership. This cluster of groups had highest scores on behaviors and

perception of leadership measured by observers, except for perceived leadership on (12) decentralization. Most observed and self-reported task and relational behaviors had the highest levels among clusters. However, self-reported measures on (13) direction and role definer, (17) communication facilitator, and (23) emotional support showed medium levels rather than marking the highest levels. Overall, most leadership behaviors were rated the highest on both observation and self-reported measures.

Cluster 3 (n=6, 20% of sample) was named “Low-level of Leadership” based on the mean profile of the set of variables on emergent leadership. Overall, the cluster had the lowest scores on observed leadership behavior and perception except (12) decentralization. However, self-reported measures on leadership behaviors as (16) comprehension checker, perception of leadership on (20) process observer showed the highest level among clusters. Therefore, the current study concludes that leadership has not sufficiently emerged in cluster 3 compared to other clusters.

In order to verify the distinctiveness between three clusters, a one-way ANOVA was conducted (Table 3). All observational measures were proved significantly different among clusters of Low, Medium, and High-level of Leadership. However, self-report measures did not show significant difference among the clusters. Table 3 displays distinctiveness of three clusters concerning observational measures. Figure 1 shows distinctive characteristics of clusters on different levels of leadership behavior and perception rated by observations.



**Figure 1** Depiction of the three latent clusters defined by pattern of standardized means on dimension of leadership from observational measures

There was a significant difference among three clusters of emergent leadership on observed task and relational leadership behaviors as well as perception of leadership at the  $p = .000$  level, except task behavior of comprehension checker ( $p=.002$ ). Task leadership behavior as 1) Direction and role definer [ $F(2, 28)=12.01, p=.000$ ], 2) Summarizer [ $F(2, 28)=21.933, p=.000$ ], 3) Information and opinion seeker [ $F(2, 28)=21.293, p=.000$ ], 4) Comprehension checker [ $F(2, 28)=8.224, p=.002$ ] showed significant effect of clusters. Relational leadership behavior as 5) Tension reliever [ $F(2, 28)=22.233, p=.000$ ], 6) Communication facilitator [ $F(2, 28)=13.781, p=.000$ ], 7) Encourager of participation [ $F(2, 28)=20.77, p=.000$ ], 8) Process observer [ $F(2, 28)=19.10, p=.000$ ] showed significant effect of clusters. Moreover, leadership perceptions on 9) Joint collaboration [ $F(2,$

28)=103.618,  $p=.000$ ], 10) Mutual skill development [ $F(2, 28)=53.29$ ,  $p=.000$ ], 11) Emotional support [ $F(2, 28)=76.021$ ,  $p=.000$ ], 12) Decentralized [ $F(2, 28)=14.22$ ,  $p=.000$ ] showed significant effect of clusters.

Post hoc comparisons using the Tukey's HSD test indicated that 1) Direction and role definer showed significant differences among three clusters High-level of Leadership ( $M= 4.06$ ,  $SD=.55823$ ), Medium-level of Leadership ( $M= 3.5556$ ,  $SD=.55823$ ), and Low-level of Leadership ( $M= 2.8889$ ,  $SD=.31476$ ) [ $F(2, 28)=12.01$ ,  $p=.000$ ]. 2) Summarizer showed differences between clusters High-level of Leadership ( $M= 3.7900$ ,  $SD=.46675$ ) and Medium-level of Leadership ( $M= 3.0056$ ,  $SD=.28603$ ) [ $F(2, 28)=21.933$ ,  $p=.000$ ]. 3) Information and opinion seeker showed significant differences among three clusters High-level of Leadership ( $M= 4.0200$ ,  $SD=.47918$ ), Medium-level of Leadership ( $M= 3.2278$ ,  $SD=.36251$ ), and Low-level of Leadership ( $M= 2.6028$ ,  $SD=.52762$ ) [ $F(2, 28)=21.293$ ,  $p=.000$ ]. 4) Comprehension checker showed significant differences between High-level of Leadership ( $M= 3.0500$ ,  $SD=.82421$ ) and Low-level of Leadership ( $M= 1.9139$ ,  $SD=.44664$ ) [ $F(2, 28)=8.224$ ,  $p=.002$ ].

Relational leadership behavior as 5) Tension reliever showed differences between clusters High-level of Leadership ( $M= 3.6717$ ,  $SD=.48870$ ) and Medium-level of Leadership ( $M= 2.5667$ ,  $SD=.46845$ ) [ $F(2, 28)=22.233$ ,  $p=.000$ ]. 6) Communication facilitator showed differences between three clusters High-level of Leadership ( $M= 4.1883$ ,  $SD=.50130$ ), Medium-level of Leadership ( $M= 3.6778$ ,  $SD=.37383$ ), and Low-level of Leadership ( $M= 3.1056$ ,  $SD=.25856$ ) [ $F(2, 28)=13.781$ ,  $p=.000$ ]. 7)

Encourager of participation showed differences between three clusters High-level of Leadership ( $M= 3.5250$ ,  $SD=.48916$ ), Medium-level of Leadership ( $M= 2.7944$ ,  $SD=.37910$ ), and Low-level of Leadership ( $M= 2.1028$ ,  $SD=.47963$ )[ $F(2, 28)=20.77$ ,  $p=.00$ ]. 8) Process observer showed differences between three clusters High-level of Leadership ( $M= 3.8800$ ,  $SD=.43303$ ), Medium-level of Leadership ( $M= 3.2278$ ,  $SD=.35700$ ), and Low-level of Leadership ( $M= 2.5472$ ,  $SD=.55532$ )[ $F(2, 28)=19.10$ ,  $p=.000$ ]. Moreover, leadership perceptions on 9) Joint collaboration showed differences between three clusters High-level of Leadership ( $M= 4.8333$ ,  $SD=.23570$ ), Medium-level of Leadership ( $M= 3.7667$ ,  $SD=.21639$ ), and Low-level of Leadership ( $M= 3.2778$ ,  $SD=.25092$ ) [ $F(2, 28)=103.618$ ,  $p=.000$ ]. 10) Mutual skill development showed differences between three clusters High-level of Leadership ( $M= 4.9000$ ,  $SD=.31623$ ), Medium-level of Leadership ( $M= 3.6000$ ,  $SD=.50709$ ), and Low-level of Leadership ( $M= 2.5000$ ,  $SD=.54772$ ) [ $F(2, 28)=53.29$ ,  $p=.000$ ]. 11) Emotional support showed differences between three clusters High-level of Leadership ( $M= 4.8000$ ,  $SD=.34960$ ), Medium-level of Leadership ( $M= 3.4333$ ,  $SD=.37161$ ), and Low-level of Leadership ( $M= 2.4167$ ,  $SD=.49160$ ) [ $F(2, 28)=76.021$ ,  $p=.000$ ]. 12) Decentralized showed differences between three clusters High-level of Leadership ( $M= 1.3500$ ,  $SD=.52967$ ) and Medium-level of Leadership ( $M= 2.3667$ ,  $SD=.61140$ )[ $F(2, 28)=14.22$ ,  $p=.000$ ].

**Table 3 A one-way ANOVA (N=31)**

Variable	Cluster 1: Medium-level of Leadership		Cluster 2: High-level of Leadership		Cluster 3: Low-level of Leadership		F (2, 28)	p	Tukey's HSD
	M	SD	M	SD	M	SD			
1) Direction and role definer	3.55	.44	4.06	.55	2.88	.31	12.01	.000	3<1<2
2) Summarizer	3.00	.28	3.79	.46	2.72	.25	21.93	.000	3<1<2
3) Information and opinion seeker	3.22	.36	4.02	.47	2.60	.52	21.29	.000	3<1<2
4) Comprehension checker	2.55	.29	3.05	.82	1.91	.44	8.22	.002	3<1<2
5) Tension reliever	2.56	.46	3.67	.48	2.02	.68	22.23	.000	3<1<2
6) Communication facilitator	3.67	.37	4.18	.50	3.10	.25	13.78	.000	3<1<2
7) Encourager of participation	2.79	.37	3.52	.48	2.10	.47	20.77	.000	3<1<2
8) Process observer	3.22	.35	3.88	.43	2.54	.55	19.10	.000	3<1<2
9) Joint collaboration	3.76	.21	4.83	.23	3.27	.25	103.62	.000	3<1<2
10) Mutual skill development	3.60	.50	4.90	.31	2.50	.54	53.29	.000	3<1<2
11) Emotional support	3.43	.37	4.80	.34	2.41	.49	76.02	.000	3<1<2
12) Decentralized	2.36	.61	1.35	.52	3.00	.83	14.22	.000	2<1<3

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Note. Each variable is aggregated as group level measures.

### 3. Group-Level Analysis

A one-way ANOVA was conducted for group level analyses of self-managing groups on communicative competence, group performance, and group cohesion (Table 4). A one-way ANOVA was used to examine Research Question 1 on whether cluster of groups differed in relation to communication competence (Table 4). And in order to test Hypothesis 1 and 2, group performance and group cohesion of three clusters were analyzed. As a result, there were no differences between clusters on communicative competence, group performance, and group cohesion.

Group performance and group cohesion were analyzed and there were no differences between clusters in communicative competence, group performance, and group cohesion. There were no effects of distinctive clusters on group performance and neither on group cohesion.

**Table 4 A one-way ANOVA (N=31)**

Variables	Cluster 1: Medium-level of Leadership		Cluster 2: High-level of Leadership		Cluster 3: Low-level of Leadership		F (2, 28)	p
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Communication competence	3.25	.25	3.12	.22	3.34	.23	1.81	.18
Group performance	46.27	9.6	45.3	18.16	40	110.7	.501	.61
Group cohesion	3.81	.24	3.96	.28	3.68	.21	2.488	.10

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

*Note.* Each variable is aggregated as group level measures.

In order to test Hypothesis 2 more specifically on group cohesion, Hypothesis 2-1 and 2-2 were tested. The current study conducted a correlation (Table 5) for 31 self-managing groups, where task leadership behaviors ( $M=3.33$ ,  $SD=.51$ ) and task cohesion ( $M=4.0$ ,  $SD=.24$ ) were non-significantly correlated,  $r(31)=.318$ ,  $p>.05$ . On the other hand, relational leadership behaviors ( $M=3.16$ ,  $SD=.50$ ) and social cohesion ( $M=3.65$ ,  $SD=.34$ ) were significantly correlated,  $r(31)=.366$ ,  $p<.05$ .

**Table 5 Correlations of leadership behavior and cohesion (N=31)**

Variables	<i>M</i>	<i>SD</i>	1	2	3	4
1. Task leadership behavior	3.33	.51	1			
2. Relational leadership behavior	3.16	.50	.883*	1		
3. Task cohesion	4.0	.24	.318	.526**	1	
4. Social cohesion	3.65	.34	.125	.366*	.646**	1

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

#### 4. Individual-Level Analysis

Individual-level of analysis were conducted using observational measures since they were more suitable to identify differences among clusters. Beforehand, the study conducted a correlation on all individual level measures in self-managing groups. Descriptive measures of individual observational variables are listed below (Table 6).

**Table 6 Descriptive of observational individual-level variables (N=116)**

Variables	<i>M</i>	<i>SD</i>
1. Communication competence	3.4031	.46281
2. Task competence	27.2759	10.63185
3. Feelings of belongingness	3.64	.707
4. Communication satisfaction	3.6956	.52913
5. Direction and role definer	3.569	1.2387
6. Summarizer	3.198	1.3527
7. Information and opinion seeker	3.336	1.3574
8. Comprehension checker	2.560	1.2179
9. Communication facilitator	3.716	.9307
10. Tension reliever	2.819	1.2552
11. Encourager of participation	2.879	1.1356
12. Process observer	3.293	1.1648

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

The relationship between communicative competence and behaviors of leadership in Hypothesis 3 showed that communicative competence ( $M=3.4$ ,  $SD=.46$ ) correlates with both observed task leadership behaviors on summarizer  $r(31)= .198^*$ ,  $p<.05$ , information and opinion seeker  $r(31)= .211^*$ ,  $p<.05$ , comprehension checker  $r(31)= .256^*$ ,  $p<.05$ , and relational leadership behaviors on encourager of participation  $r(31)= .27^{**}$ ,  $p<.01$  respectively (Table 7).

**Table 7 Correlations of communicative competence and leadership behavior (N=116)**

Variables	1	2	3	4	5	6	7	8	9
1. Communication competence	1								
2. Direction and role definer	.147	1							
3. Summarizer	.198*	.814**	1						
4. Information and opinion seeker	.211*	.744**	.802**	1					
5. Comprehension checker	.256*	.680**	.734**	.711**	1				
6. Communication facilitator	.089	.730**	.736**	.682**	.594**	1			
7. Tension reliever	.115	.565**	.631**	.613**	.528**	.588**	1		
8. Encourager of participation	.27**	.643**	.689**	.664**	.672**	.601**	.723**	1	
9. Process observer	.144	.757**	.757**	.702**	.723**	.711**	.590**	.645**	1

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

To test Hypothesis 4, a multiple regression analysis was used to test if cluster of self-managing groups predicted individual relational leadership behavior. The model showed a significant regression equation ( $F(3,112)=18.962, p=.000$ ), with an  $R^2$  of .337 (Table 8). Clusters “High-level Leadership” and “Low-level of Leadership” was each dummy coded with reference to Medium-level of Leadership. “High-level of leadership (reference: Middle-level of Leadership)” ( $\beta=.383, p<.000$ ) and “Low-level of leadership (reference: Middle-level of Leadership)” ( $\beta=-.269, p<.001$ ) significantly predicted individual relational leadership behavior while controlling for individual communicative competence ( $\beta=.273, p<.01$ ).

**Table 8 Multiple regression results for relational leadership behavior (N=115<sup>2</sup>)**

Variables	Model 1			Model 2		
	B	SE B	$\beta$	B	SE B	$\beta$
(Constant)	9.89*	3.887		6.78*	3.35	
Communicative competence	2.692	1.132	.217	3.386	.958	.273
High-level of Leadership (reference: Medium-level of Leadership)				4.658	1.005	.383***
Low-level of Leadership (reference: Medium-level of Leadership)				-3.788	1.16	-.269**
$R^2$		.047			.337	
F		5.657*			19.650***	
$\Delta R^2$		.039			.319	

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Another multiple regression analysis was used to test whether different clusters of self-managing groups predicted individual task leadership behavior in Hypothesis 4 (Table 9). The model showed a significant regression equation ( $F(3,112)=9.417$ ,  $p=.000$ ), with an  $R^2$  of .201. Clusters “High-level Leadership” and “Low-level of Leadership” was each dummy coded with reference to Medium-level of Leadership. “High-level of Leadership (reference: Middle-level of Leadership)” ( $\beta=.279$ ,  $p<.01$ ) and “Low-level of Leadership (reference: Middle-level of Leadership)” ( $\beta=-.195$ ,  $p<.05$ ) significantly predicted task leadership

<sup>2</sup> One participant was left out from measure due to missing value. The original sample consists of 116 participants; however, here there are 115. This applies to Table 9, 10, 12 as well.

behaviors of individuals while controlling for individual communicative competence ( $\beta=.262, p<.01$ ).

**Table 9 Multiple regression results for task leadership behavior (N=115)**

Variables	Model 1			Model 2		
	B	SE B	$\beta$	B	SE B	$\beta$
(Constant)	9.581*	4.31		7.08	4.07	
Communicative competence	3.304	1.254	.221*	3.59	1.17	.262**
High-level of Leadership (reference: Medium-level of Leadership)				3.76	1.22	.279**
Low-level of Leadership (reference: Medium-level of Leadership)				-3.05	1.41	-.195*
$R^2$		.049			.201	
F		5.849*			9.42***	
$\Delta R^2$		.04			.18	

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

In order to test Hypothesis 5, a model of perception of shared leadership predicting feelings of belongingness showed a significant regression equation ( $F(4,111)=4.138, p=.004$ ), with an  $R^2$  of .130 (Table 10). Feelings of belongingness increased .199 for each unit of mutual skill development, being the only predictor among variables of leadership perception.

**Table 10 Multiple regression results for feelings of belongingness (N=115)**

Variables	Feelings of belongingness		
	B	SE B	$\beta$
Joint collaboration	.201	.140	.139
Mutual skill development	.199	.085	.259*

Emotional support	.037	.103	.038
Decentralization	-.034	.058	-.055

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

In order to test Hypothesis 6 a correlation was conducted. For 116 individuals of the study, among relational leadership behaviors encourager of participation ( $M=2.88$ ,  $SD=1.14$ ) and belongingness ( $M=3.64$ ,  $SD=.71$ ) were significantly correlated by  $r(116)=.217$ ,  $p<.05$ , (Table 11).

**Table 11 Correlations of relational leadership behavior and feelings of belongingness (N=116)**

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5
1. Feelings of belongingness	3.64	.71	1				
2. Communication facilitator	3.72	.93	.062	1			
3. Tension reliever	2.82	1.26	.181	.588**	1		
4. Encourager of participation	2.88	1.14	.217*	.601**	.723**	1	
5. Process observer	3.29	1.17	.086	.711**	.590**	.645**	1

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

To test Hypothesis 7, a multiple regression analysis was used to test if cluster of self-managing groups predicted individual feelings of belongingness (Table 12). The model showed a non-significant regression equation ( $F(3,112)= 2.53$ ,  $p>.05$ ), with an  $R^2$  of .63. Clusters “High-level Leadership” and “Low-level of Leadership” was each dummy coded with reference to Medium-level of Leadership. Individual’s feelings of belongingness did not differ among clusters “High-level of Leadership (reference: Medium-level of Leadership)” and “Low-level of Leadership

(reference: Medium-level of Leadership).” Only relational leadership behaviors as encourager of participation of individuals significantly predicted their feelings of belongingness ( $\beta=.217, p<.05$ ).

**Table 12 Multiple regression results for feelings of belongingness and predictors (N=115<sup>3</sup>)**

Variables	Model 1			Model 2		
	B	SE B	$\beta$	B	SE B	$\beta$
(Constant)	3.254***	.176		3.386***	.200	
Encourager of participation	.135	.057	.217*	.105	.063	.234*
High-level of Leadership (reference: Medium-level of Leadership)				.012	.154	.008
Low-level of Leadership (reference: Medium-level of Leadership)				-.233	.175	-.134
$R^2$		.047			.063	
F		5.615*			2.525	
$\Delta R^2$		.039			.038	

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

To test Hypothesis 8, a multiple regression analysis was used to test if cluster of self-managing groups predicted communication satisfaction (Table 13). The model did not support the hypothesis showing a non-significant regression equation ( $F(2,112) = .879, p = .418$ ), with an  $R^2$  of .015. Clusters “High-level Leadership” and “Low-level of Leadership” was each dummy coded with reference to Medium-level of Leadership. It

<sup>3</sup> One participant was left out from measure due to missing value. The original sample consists of 116 participants; however, there are 115 in Table 14.

was found that individual's communication satisfaction did not differ between clusters "High-level of Leadership (reference: Medium-level of Leadership)" and "Low-level of Leadership (reference: Medium-level of Leadership)."

**Table 13 Multiple regression results for communication satisfaction and predictors (N=114<sup>4</sup>)**

Variables	Communication satisfaction		
	B	SE B	$\beta$
High-level of Leadership (reference: Medium-level of Leadership)	.136	.113	.122
Low-level of Leadership (reference: Medium-level of Leadership)	-.009	.130	-.007

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

To test Hypothesis 9, a multiple regression model of perception of leadership predicting communication satisfaction showed a significant regression equation ( $F(4,110)=17.219$ ,  $p=.000$ ), with an  $R^2$  of .385 (Table 14). Communication satisfaction increased .418 for each unit of joint collaboration and .247 for emotional support. Both joint collaboration and emotional support were significant predictors of communication satisfaction.

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<sup>4</sup> Two participants were left out from measure due to missing value. The original sample consists of 116 participants; however, there are 114 in Table 115. This applies to Table 16 as well.

**Table 14 Multiple linear regression of perception of leadership on communication satisfaction (N=114)**

Variables	Communication satisfaction		
	B	SE B	$\beta$
Joint collaboration	.418	.088	.385***
Mutual skill development	.046	.054	.079
Emotional support	.247	.065	.344***
Decentralization	-.006	.037	-.012

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

## **VI. Discussion**

### **1. Summary of Results**

This study examined a unique form of leadership that emerges in groups and reflects the advent of various collaborative work groups made to create and accomplish somewhat outstanding goals. Apart from past literature that investigates the advantages of a single designated leader, the current study suggests that emergent leadership in self-managing groups can be a new way to survive within the changing ecology of organizations and advancement of collaboration. Acknowledging the rise of new forms and aims of these groups, the present study strived to conceptualize leadership that naturally emerges within groups. As a result, the present study describes communicative behaviors and perceptions concerning group work in existing theories of communication and organizational behavior as “emergent leadership.”

While task and relational issues were expressed via communicative behaviors, the perception of how leadership was collectively performed in the group was measured as well. This term of emergent leadership comports well with past research on understanding leadership as “the process of facilitating individual and collective efforts to accomplish shared objectives” (Yukl, 2006, p. 8). However, identifying members as leaders by focusing on individual leadership styles or measuring influence among members via social network analysis in previous studies does not provide a comprehensive understanding of the dynamic interactions within self-

managing groups. The concept of emergent leadership in the present study helps to provide a basis of understanding, therefore examining the group phenomenon of self-managing groups.

Examining various antecedents and consequences of emergent leadership on individual and group levels led to identifying what makes the phenomenon of emergent leadership work and how effective it is. Unlike what the present study had predicted, self-managing groups with distinctive degrees of leadership behavior and perception all had similar group levels of communicative competence, group performance, and group cohesion. These results show that despite the members displaying more leadership behavior and their perception that leadership was performed collectively, self-managing groups did not display significant differences in group performance and group cohesion. Specifically, when analyzing group cohesion and leadership behavior of groups, however, task leadership behaviors showed non-significant correlations with task cohesion, whereas relational leadership behaviors showed significant correlations with social cohesion. A significant relationship between social cohesion and relational leadership behaviors emphasized the importance of communicating socio-emotional behaviors in building positive attributes about their groups.

Without much difference in group characteristics, interestingly, an analysis of individuals suggests that the level of members' communicative competence affected how often they performed leadership behaviors such as summarizing, seeking information, and encouraging participation. Furthermore, one of the major findings of the present study was discovering

what makes groups more interactive and therefore effective. According to the results, the experience of being in a group with distinctive characteristics itself affects individual behaviors. In fact, group members with the same level of communicative competence performed significantly differently in the degree of leadership behavior, performing more relational and task leadership behaviors when they were in "Cluster 2: High Level of Leadership" than in "Cluster 1: Medium Level of Leadership" and in "Cluster 1: Medium Level of Leadership" than in "Cluster 3: Low Level of Leadership." It appears that though leadership behavior and perceptions in groups does not necessarily require higher levels of mean communicative competence of groups; individual behavior is significantly affected by interactional contexts formed by the leadership behavior of group members as well as individuals' positive perceptions about collective leadership. While acknowledging that communication behavior is critical to group processes as it is constructed through constant interaction (Gergen, 1994), the results of the present study show that group process is crucial to individual behavior as well, therefore emphasizing group dynamics within self-managing groups rather than individual competence.

Findings on individuals' perceptions of mutual skill development within groups significantly predicted feelings of belonging to their groups. Individual perceptions on joint collaboration, emotional support, and decentralization in groups, however, did not influence feelings of belongingness. Specifically, decentralization, though not significant, showed

an inverse relationship with belongingness. This result shows that it is crucial to enable the development of mutual skills among group members to strengthen belongingness to their groups. In addition to the perception of individuals of leadership, relational leadership behaviors affected feelings of belongingness. Relational leadership behavior, such as the encouragement of participation, showed significant relationships with feelings of belongingness. Other relational leadership behaviors, however, did not show particular relationships with belongingness. Furthermore, considering distinctive characteristics of emergent leadership, individuals were not affected by the degree of leadership behavior and perception on collaborative leadership when feeling belongingness toward their group. Individuals who performed a certain level of relational leadership behavior did not significantly feel more or less belongingness despite the level of leadership behavior and perception in their groups.

Furthermore, while the distinctiveness of emergent leadership in self-managing groups did not affect the level of communication satisfaction, how positive individuals perceived leadership in their groups affected their satisfaction with communication. Individuals in “Cluster 2: High Level of Leadership” did not feel more satisfaction with communication than individuals in “Cluster 1: Medium Level of Leadership” or “Cluster 3: Low Level of Leadership.” Though some individuals experienced more leadership behavior and perception of shared leadership in their groups, they were no more satisfied with group communication than individuals who did not. Among individual perceptions of leadership, however, joint

collaboration and emotional support showed significant predictions of levels of individual communication satisfaction. This result suggests that individuals who perceive their own groups as more collaborative and emotionally supportive feel much more satisfied with communication in groups. Considering that belongingness is hard to develop in temporary working groups, non-significant differences among clusters on belongingness and satisfaction are likely to be acceptable. Members who performed role as encourager of participation had significant relationships to belongingness in groups.

Among the three clusters, there were 10 groups that had the highest measures on almost all leadership behaviors named “Cluster 2: High-Level of Leadership.” These groups had the highest perception of collective leadership in their groups. However, these groups did not have the highest communicative competency, optimal group performance or cohesion. This finding suggests that having communicatively competent members are not the key source of group performance. Individual communicative competence positively affects both leadership behaviors but more importantly, the degree of leadership behavior was influenced by their membership to certain clusters.

Among the three clusters of self-managing groups, there were 6 groups that had the lowest measures on almost all leadership behaviors named “Cluster 3: Low-Level of Leadership.” These groups also had the lowest perception on how collective leadership was performed in their groups. Unlike low level of leadership behaviors and perceptions, these

groups did not have the lowest communicative competency, nor were they especially poor on group performance and group cohesion. This suggests that having members with low communicative competency do not necessarily lead to ineffective group outcomes. The notion that individual communicative competence positively affects both leadership behaviors works differently here as well.

Putting together examination of clusters 2 and 3, the current study proved that leadership behaviors of individuals are strongly influenced by the group context itself. When they are in a group with distinctively low cooperation and less leadership performed by others, they are significantly less likely to be encouraged to participate and act actively on group work. It is now safe to conclude that individuals can be strongly influenced by the group context especially when they are in spontaneous collaborative groups. Summaries of “Cluster 1: Medium-Level of Leadership” was left out since comparisons between Cluster 2 and 3 demonstrated the non-significant relationship between clusters and their communicative competency, group performance, and group cohesion.

The study provided examination of individual levels as well in order to comprehend the phenomenon of emergent leadership holistically. Individuals’ communicative competence significantly brought people to perform more task and relational behaviors. It shows that membership to clusters, individuals who experienced more leadership behavior and collective leadership in their groups performed more leadership behaviors than others who did not.

## 2. Theoretical Implications

While fully acknowledging that single leaders are still needed in the workplace when an individual is assigned accountability for accomplishing certain group goals, the present study mainly captures interactional aspects of self-managing groups in order to conceptualize and examine emergent leadership in horizontal leaderless groups following advancements of organizations and groups. One of the main reasons the current study adopted the concept of temporary self-managing work groups was to enable the pure examination of emergent leadership originating from newly formed small groups with no designated leader. However, these new groups are more likely to display both relational and task behaviors simultaneously, even though they should be busy completing their tasks (Barry, 1991). Put otherwise, self-managing groups are likely to display unique characteristics in leadership and interaction, which the present study has conceptualized it as emergent leadership. Examining the characteristics of emergent leadership in self-managing groups with regard to communicative competence, performance, and cohesion led to further investigation of individual factors that contribute to differentiating the levels of leadership behavior, feelings of belongingness, and communication satisfaction.

First of all, in order to specify characteristics of emergent leadership, the effective statistical tool of LPA was used to classify distinctive forms of leadership in self-managing groups. The temporary and spontaneous self-managing groups were able to provide advantages for examining the pure emergence of leadership. The classification of self-managing groups based

on various dimensions of communicative behaviors and perceptions has not been performed in previous studies. Specifically, using LPA) supported the process of classifying distinctive forms of leadership that could potentially emerge in self-managing groups. The dynamics of these newly formed leaderless groups provide new insight into how teamwork and collaboration can be conducted nowadays when the spectrum of leadership is changing, various forms of teams are emerging, and the nature of collaboration is shifting.

In fact, due to the vague and dynamic nature of self-managing groups, conceptualizing emergent leadership to fit the context of self-managing groups was a challenge. Though many organizations recognize the value of allowing communication to flow openly among individuals and rejecting rigid forms of communication between leaders and subordinates, the paradigm of leadership has not evolved accordingly. The current study, however, managed to adopt different aspects of leadership theory from various fields of organizational and communication studies. As a result, 12 dimensions of leadership were collected from each of participant's self-report and observation measures from out-group raters.

While adopting self-managing groups is often productive for organizations (Lambe et al., 2009), the most common cause of insufficiency was poor leadership (Beyerlein, Johnson, & Beyerlein, 1996; Cohen, Chang, & Ledford, 1997; Wageman, 2001). In fact, studies indicate that a single leader should still have a number of advantages over emergent leadership shared among members, as a single leader would be better able to integrate

task and relational leadership behavior and would therefore be more likely to have leadership characteristics attributed to them by subordinate members (Waldersee & Eagleson, 2002; Yukl, 1994). A single leader can also be more accountable when certain outcomes appear, regardless of whether they are positive or negative ones. Ultimately, however, these benefits can be outweighed by avoiding role conflicts, having more resources for group work, and having opportunities to compensate for weaknesses through emergent leadership in self-managing groups.

Below are a several descriptions why emergent leadership can be more useful in self-managing groups. The need for a single leader to perform both task leadership and relational leadership behaviors may result in an individual having conflicting roles (Seeman, 1953), which in the end might impact the performance of leadership negatively. Furthermore, with additional effort, emergent leadership allows for more an effective performance, since it allows more time and energy for more things to get done by multiple members of the group. Finally, emergent leaders are allowed to compensate for their weaknesses (Waldersee & Eagleson, 2002), while their various strengths can be used to help each other. This can contribute to effective performance and to the quality of the group work.

The results from the group analysis in the present study, however, could not show that more interactive and communicative groups have better performance or cohesion. Considering that decision-making processes in groups are generally recognized for involving a complex relationship between individual competence and group performance (Sartori & Ceschi,

2012), the weak link between group performance and leadership behavior or perception is understandable, especially in self-managing groups. Due to previous studies that have demonstrated that strong relationships among group members tend to improve group performance (Sparrowe, Liden, Wayne, & Kraimer, 2001), in the present study, experimental self-managing groups are considered to be inevitably disadvantageous for developing optimal group performance and cohesiveness. It is crucial that individuals are in a coordinated and strongly bonded group while performing tasks, as they are more likely to be encouraged to participate, work on tasks, and develop relationships simultaneously.

Self-managing groups that form spontaneously from members who have completely no history of acquaintance are especially underprivileged with regard to the possibility for strong relationships and group bonding. As membership within a group with better leadership behavior and a more positive perception of collective leadership does not necessarily lead to strong relationships or bonding, the present study acknowledges the limitations of spontaneous self-managing groups. Therefore, further research considering the links between leadership behaviors, bonding among group members, and the consequences of emergent leadership (group performance and group cohesion) should be conducted in order to obtain a clearer and more comprehensive picture of dynamics in self-managing groups.

Despite the fact that previous literature demonstrated the importance of characteristics of individual leaders, such as communicative competence

or leadership style, the collective efforts of group members embedded in interactions were more critical in making individuals more interactive and communicative in group work, which makes them “emerging” leaders. However, unlike the leadership behavior of individuals, feelings of belongingness and communication satisfaction were not affected by membership in a cluster. Though feelings of belongingness were created by perceptions of leadership that come from experiences of holistic leadership as performed by group members (Woods, 2005), high levels of leadership behavior and positive perceptions of collective leadership in groups did not affect feelings of belongingness. Despite the limitations of temporary work groups, some individuals perceived their groups as mutually developing each other’s skills during group work, which ultimately led to feelings of belongingness within their groups.

The case of communication satisfaction was similar, in that it was affected by perceptions of performance regarding collective leadership, but not by individual experiences in groups from different clusters. The more individuals perceived their groups as collaborating and supporting each other emotionally, the more satisfied they were with the communication occurring in the group. This shows that regardless of how much of leadership behaviors are performed, individuals differ in terms of how positively they perceive group communication. Therefore, individuals are significantly more likely to feel open to communication and highly receptive to new ideas and information if they think they have formed strong positive relationships among members. Since group performance was

a quantitative outcome of group communication, communication satisfaction serve as a qualitative outcome that proves individual's sense of satisfaction with the quality of communication in their group, though no groups achieved a high score on group tasks.

As feelings of belongingness and communication satisfaction are qualitative outcomes of organizational communication, interaction within groups is critically important, probably more so than the degree to which leadership behavior is performed. However, brief experiments in the present study as spontaneous self-managing groups could not foster individuals to influence each other enough. While communicative behaviors are easily affected by experiences individuals have in groups, feelings of belongingness and communication satisfaction were not influenced by interactions with other members. Considering that feelings of belongingness are a personal measure of an individual's feelings and attitudes toward the group on whether to remain in the same group in the future, it may not necessarily be affected by the leadership behaviors. More important factors may include the time spent with members and the sense of closeness among members. Similarly, having more relational leadership behavior in groups did not necessarily lead to a sense of mutual trust or positive relationships.

Overall, the current study took both communication and organizational behavior and tried to examine their effects on a relatively new group context. It has been suggested that the conceptualization of leadership in such groups is the most meaningful and effective aspect of leadership (Yukl, 2000, 2002, 2006). Furthermore, conceptualizations of the

perception of collective leadership provided a more comprehensive view. Unlike previous studies that assessed emergent leadership through a single dimension, the current study collects self-reported data regarding both behavior and perception from individuals as well as data collected from out-group observers. The multiple concepts and methods contribute to convergence of a validation model of leadership in self-managing groups (Anderson & Wanberg, 1991).

Taken together, the findings reported in the study also have implications for practices in organizations, especially with regard to adopting self-managing groups. In this study, the leadership clusters include groups that range from three to five members. Information about which cluster a member belongs to can provide broader insights. When information is consistently recorded about individuals' membership to certain clusters classified by LPA in organizations, it can be useful to managers who intend to form temporary groups in the future. For example, when an individual with low communicative competence is consistently classified as belonging to a cluster of "Low-Level of Leadership," the individual may be able to receive leadership training. On the other hand, when an individual with low communicative competence is consistently classified as belonging to a cluster of "High-Level of Leadership," the member has the potential to become an emergent leader or a good collaborator.

Keeping track of individuals as well as the cluster to which they belong can provide human resource managers further information about the

individual's experience in groups, and it may encourage changes in group composition and the implementation of different forms of groups. Therefore, individual's membership of clusters conveys helpful information about groups as a whole in addition to useful information about individuals.

In fact, this study provides unique findings for the literature on emergent leadership. LPA, the statistical method adopted as one of the study's key modes of analysis, was originally used to uncover stable memberships of individuals to clusters, such as classification of symptoms of depression or maladaptive child development (Distefano & Kamphaus, 2006). Based on studies in various applied disciplines, it is suggested that clusters are relatively stable entities, though people may fluctuate in terms of which cluster they belong to. Though it may seem hard to assume the stability of the clusters in the current study, the compiled data on the group work can be used later as a resource for assigning members to teams within organizations.

Given the circumstances of self-managing groups that have less formal structures, which relates to having less group identification and membership than to having permanent traditional teams, the work groups in the current study can function as a reasonable test of the effectiveness of the group interaction that is to be examined (Sy et al., 2005). In other words, it is possible to believe that real teams in organizations might be more effective than the temporary work groups of the current study in terms of feelings of belongingness and communication satisfaction, which were weakly identified in the present study. Therefore, the implications of this

study are important not only for experimental small groups, but also for real-life self-managing groups as well as traditional permanent teams.

### 3. Limitations of Research and Recommendations for Future Research

Although the present study offers meaningful findings, it is not without limitations. The use of a small student sample size (N=116, 31 groups) is commonly criticized for limiting the generalization of research findings. The current study conducted an experiment for which groups were created purely for the purpose of accomplishing academic goals. As a result, participants' behaviors may not be fully comparable to actual performances when they are in real groups. And group discussions may not have been plentiful enough to result in certain interaction outcomes such as cohesion or group performance.

Furthermore, because the student samples were intentionally gathered from a campus site, participants held various individual goals for participating in the experiment, such as wanting to be paid or being interested in the topic. This differs from real self-managing groups adopted in organizations, which are primarily focused on making progress toward task goals. Thus, the result of the study may be hard to be applied generally to real groups.

There are still no studies that have sought to classify the dynamics of self-managing groups in the context within organizational or communications studies. However, classifying self-managing groups based on both behavioral and perceptual sub-scale measures regarding emergent leadership itself proved to be meaningful. Through this study, an initial step was taken to investigate diverse forms of spontaneous emergent leadership

within groups.

The key contribution of the current study was not to replace previous leadership theories but to reflect the advent of diverse kinds of leadership in various group contexts, especially in self-managing groups. Therefore, examinations of concepts and ways of measuring emergent leadership were expected to integrate views that were dispersed throughout various studies. Future studies can determine more reliable measures and definitions of emergent leadership that can be generalized for various fields such as education, business, and sociology.

Future research can continue to replicate these findings about self-managing groups and about how emergent leadership perception and behavior influence group cohesion, feelings of belongingness, and communication satisfaction. The influence on various group outcomes such as organizational learning, group effectiveness, and levels of creativity can be also be investigated. However, different measures of sub-scales of leadership other than behavior and perception may be adopted in the future in order for a three-cluster solution to be validated, thereby illustrating more clearly that clusters are distinctive from one another.

Self-managing groups have reflected the increasing need for proactive teams that work to achieve higher levels of performance, innovation, and creativity. As such, the area of study has potential. Further studies may be able to show the link between communicative competence and leadership behaviors of individuals that ultimately contribute to achieve higher group outcomes as well as achieving organizational goals.

In conclusion, this study provided interesting findings based on latent profile solutions for self-managing groups using behavioral and perceptual measures of emergent leadership. The three clusters showed distinct profiles concerning various antecedents and consequences that help to understand spontaneous group interactions. Therefore, it is important to recognize that the latent profile solution uncovered hidden relationships between individuals and groups.

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## Appendix A. Survey Instrument

[1차 사전 실험 연구 설문지]

1. 당신은 현재 어떤 감정들을 느끼고 있습니까?

▣ 아래의 척도는 각각 다른 감정과 느낌을 설명하는 단어들로 이루어져 있습니다. 각각의 단어들을 읽고 아래에 나타난 척도의 숫자에 ○표시를 해주세요. **오늘, 현재 느끼고 있는 감정들을** 떠올리며 단어가 담고 있는 느낌과 감정을 어느 정도로 느끼고 있는지 **솔직하게** 표시해주세요.

[예시]

즐거움

1	2	3	4	5
매우 희박하거나 거의 느끼지 않음	약간 느낌	적당히 느낌	제법 느낌	매우 많이 느낌

1. 흥미로움

1	2	3	4	5
매우 희박하거나 거의 느끼지 않음	약간 느낌	적당히 느낌	제법 느낌	매우 많이 느낌

2. 고통스러움(distressed)

1	2	3	4	5
매우 희박하거나 거의 느끼지 않음	약간 느낌	적당히 느낌	제법 느낌	매우 많이 느낌

3. 신남

1	2	3	4	5
매우 희박하거나 거의 느끼지 않음	약간 느낌	적당히 느낌	제법 느낌	매우 많이 느낌

4. 속상함

1	2	3	4	5
매우 희박하거나 거의 느끼지 않음	약간 느낌	적당히 느낌	제법 느낌	매우 많이 느낌

5. 강인함

1	2	3	4	5
매우 희박하거나 거의 느끼지 않음	약간 느낌	적당히 느낌	제법 느낌	매우 많이 느낌

6. 죄책감

1	2	3	4	5
매우 회박하거나 거의 느끼지 않음	약간 느낌	적당히 느낌	제법 느낌	매우 많이 느낌

7. 겁먹음

1	2	3	4	5
매우 회박하거나 거의 느끼지 않음	약간 느낌	적당히 느낌	제법 느낌	매우 많이 느낌

8. 적대감

1	2	3	4	5
매우 회박하거나 거의 느끼지 않음	약간 느낌	적당히 느낌	제법 느낌	매우 많이 느낌

9. 열징

1	2	3	4	5
매우 회박하거나 거의 느끼지 않음	약간 느낌	적당히 느낌	제법 느낌	매우 많이 느낌

10. 자랑스러움, 자부심

1	2	3	4	5
매우 회박하거나 거의 느끼지 않음	약간 느낌	적당히 느낌	제법 느낌	매우 많이 느낌

11. 짜증

1	2	3	4	5
매우 회박하거나 거의 느끼지 않음	약간 느낌	적당히 느낌	제법 느낌	매우 많이 느낌

12. 정신이 초롱초롱한

1	2	3	4	5
매우 회박하거나 거의 느끼지 않음	약간 느낌	적당히 느낌	제법 느낌	매우 많이 느낌

13. 창피함, 부끄러움

1	2	3	4	5
매우 회박하거나 거의 느끼지 않음	약간 느낌	적당히 느낌	제법 느낌	매우 많이 느낌

14. 감동

1	2	3	4	5
매우 희박하거나 거의 느끼지 않음	약간 느낌	적당히 느낌	제법 느낌	매우 많이 느낌

15. 긴장감

1	2	3	4	5
매우 희박하거나 거의 느끼지 않음	약간 느낌	적당히 느낌	제법 느낌	매우 많이 느낌

16. 단호함(determined)

1	2	3	4	5
매우 희박하거나 거의 느끼지 않음	약간 느낌	적당히 느낌	제법 느낌	매우 많이 느낌

17. 주의집중

1	2	3	4	5
매우 희박하거나 거의 느끼지 않음	약간 느낌	적당히 느낌	제법 느낌	매우 많이 느낌

18. 초조함

1	2	3	4	5
매우 희박하거나 거의 느끼지 않음	약간 느낌	적당히 느낌	제법 느낌	매우 많이 느낌

19. 활발함

1	2	3	4	5
매우 희박하거나 거의 느끼지 않음	약간 느낌	적당히 느낌	제법 느낌	매우 많이 느낌

20. 두려움

1	2	3	4	5
매우 희박하거나 거의 느끼지 않음	약간 느낌	적당히 느낌	제법 느낌	매우 많이 느낌

[2차 사후 실험 연구 설문지]

1. 본 실험에 참여하면서 아래의 감정들을 어느 정도로 느끼셨나요?

■ 아래의 척도는 각각 다른 감정과 느낌을 설명하는 단어들로 이루어져 있습니다. 각각의 단어들을 읽고 아래에 나타난 척도의 숫자에 O표시를 해주세요. **방금 실험에 참가한 후 현재 느끼고 있는 감정들을** 떠올리며 단어가 담고 있는 느낌과 감정을 어느 정도로 느꼈는지 솔직하게 표시해주세요.

1. 흥미로움

1	2	3	4	5
매우 희박하거나 거의 느끼지 않음	약간 느낌	적당히 느낌	제법 느낌	매우 많이 느낌

2. 고통스러움(distressed)

1	2	3	4	5
매우 희박하거나 거의 느끼지 않음	약간 느낌	적당히 느낌	제법 느낌	매우 많이 느낌

3. 신남

1	2	3	4	5
매우 희박하거나 거의 느끼지 않음	약간 느낌	적당히 느낌	제법 느낌	매우 많이 느낌

4. 속상함

1	2	3	4	5
매우 희박하거나 거의 느끼지 않음	약간 느낌	적당히 느낌	제법 느낌	매우 많이 느낌

5. 강인함

1	2	3	4	5
매우 희박하거나 거의 느끼지 않음	약간 느낌	적당히 느낌	제법 느낌	매우 많이 느낌

6. 죄책감

1	2	3	4	5
매우 희박하거나 거의 느끼지 않음	약간 느낌	적당히 느낌	제법 느낌	매우 많이 느낌

7. 겁먹음

1	2	3	4	5
매우 희박하거나 거의 느끼지 않음	약간 느낌	적당히 느낌	제법 느낌	매우 많이 느낌

8. 적대감

1	2	3	4	5
매우 회박하거나 거의 느끼지 않음	약간 느낌	적당히 느낌	제법 느낌	매우 많이 느낌

9. 열정

1	2	3	4	5
매우 회박하거나 거의 느끼지 않음	약간 느낌	적당히 느낌	제법 느낌	매우 많이 느낌

10. 자랑스러움, 자부심

1	2	3	4	5
매우 회박하거나 거의 느끼지 않음	약간 느낌	적당히 느낌	제법 느낌	매우 많이 느낌

11. 짜증

1	2	3	4	5
매우 회박하거나 거의 느끼지 않음	약간 느낌	적당히 느낌	제법 느낌	매우 많이 느낌

12. 정신이 초롱초롱한

1	2	3	4	5
매우 회박하거나 거의 느끼지 않음	약간 느낌	적당히 느낌	제법 느낌	매우 많이 느낌

13. 창피함, 부끄러움

1	2	3	4	5
매우 회박하거나 거의 느끼지 않음	약간 느낌	적당히 느낌	제법 느낌	매우 많이 느낌

14. 감동

1	2	3	4	5
매우 회박하거나 거의 느끼지 않음	약간 느낌	적당히 느낌	제법 느낌	매우 많이 느낌

15. 긴장감

1	2	3	4	5
매우 회박하거나 거의 느끼지 않음	약간 느낌	적당히 느낌	제법 느낌	매우 많이 느낌

16. 단호함(determined)

1 매우 회박하거나 거의 느끼지 않음	2 약간 느낌	3 적당히 느낌	4 제법 느낌	5 매우 많이 느낌
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17. 주의집중

1 매우 회박하거나 거의 느끼지 않음	2 약간 느낌	3 적당히 느낌	4 제법 느낌	5 매우 많이 느낌
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18. 초조함

1 매우 회박하거나 거의 느끼지 않음	2 약간 느낌	3 적당히 느낌	4 제법 느낌	5 매우 많이 느낌
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19. 활발함

1 매우 회박하거나 거의 느끼지 않음	2 약간 느낌	3 적당히 느낌	4 제법 느낌	5 매우 많이 느낌
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20. 두려움

1 매우 회박하거나 거의 느끼지 않음	2 약간 느낌	3 적당히 느낌	4 제법 느낌	5 매우 많이 느낌
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가. 아래의 자리 배치표에서 본인의 위치를 체크해주세요.

(참가자리)	
A	B
C	D
(현관문)	

<자리 배치표>

나. 함께 과제를 해결한 참가자 중 본인을 포함하여 누가 리더 혹은 리더에 가까운 역할을 했다고 생각하십니까? (복수응답 체크) 동그라미 쳐주세요.

- ① A    ② B    ③ C    ④ D

II.

▣ 아래에 있는 문항들을 잘 읽어 주시고 귀하의 생각을 솔직하게 응답하여 주시길 부탁드립니다. 각 문항에 대해 동의하시는 정도에 "O" 표하여 주시면 됩니다.

문항		전혀 그렇지 않다		보통이다		매우 그렇다
1.	나는 기분 나쁜 이야기를 들어도 내색하지 않을 수 있다.	1	2	3	4	5
2.	나는 어려운 일이 닥쳤을 때, 감정을 잘 통제할 수 있다.	1	2	3	4	5
3.	나는 마음만 먹으면 내 기분을 드러내지 않을 자신이 있다	1	2	3	4	5
4.	내 의견에 반대하는 주변사람들과 토론할 때 나는 감정을 잘 통제할 수 있다.	1	2	3	4	5
5.	나는 대화 중에 상대방의 감정 변화를 잘 파악한다.	1	2	3	4	5
6.	사람들의 얼굴 표정을 보면 어떤 감정인지 잘 알 수 있다.	1	2	3	4	5
7.	나는 상대방과 한두 마디만 나누어보아도, 그 사람의 의중을 잘 파악할 수 있다.	1	2	3	4	5
8.	나는 눈치가 빠르다는 이야기를 듣는다.	1	2	3	4	5
9.	나는 발표력이 뛰어나다는 평을 듣는다.	1	2	3	4	5
10.	나는 갑작스런 발표기회가 주어졌을 때, 당황하지 않고 말할 수 있다.	1	2	3	4	5
11.	나는 프리젠테이션을 잘 할 수 있다.	1	2	3	4	5
12.	나는 갑작스런 질문에 당황하지 않고 대답할 수 있다.	1	2	3	4	5
13.	나는 대화의 주제를 잘 이끌어간다.	1	2	3	4	5
14.	나는 대화하는 중에 상대방과 공유할 수 있는 공통의 관심사를 잘 생각해 낸다.	1	2	3	4	5
15.	나는 재치 있는 농담을 잘한다.	1	2	3	4	5
16.	나는 단답형의 대답을 많이 한다.	1	2	3	4	5
17.	나는 인간성이 좋다는 이야기를 자주 듣는 편이다.	1	2	3	4	5
18.	서로 마음을 터놓고 이야기할 수 있는 친구가 거의 없다.	1	2	3	4	5

19.	나는 고마운 사람에게 감사하다는 표현을 잘 한다.	1	2	3	4	5
20.	나는 내가 잘못했을 때, 미안한 마음을 잘 표현할 수 있다.	1	2	3	4	5
21.	나는 다른 사람을 격려하거나 위로하는 말을 잘 한다.	1	2	3	4	5
22.	나는 상대방이 나쁜 기분을 잘 풀어줄 수 있다.	1	2	3	4	5
23.	이야기하다 보면 상대방이 내 말을 오해할 때가 많다.	1	2	3	4	5
24.	나는 동문서답한다는 말을 종종 듣는다.	1	2	3	4	5
25.	나는 대화 중에 다른 생각을 하느라 대화 내용을 놓칠 때가 종종 있다.	1	2	3	4	5
26.	나는 대화를 할 때 하고 싶은 말을 다하지 못하고 주저할 때가 종종 있다.	1	2	3	4	5
27.	나는 마음만 먹으면 다른 사람의 호감을 얻을 자신이 있다.	1	2	3	4	5
28.	나는 내가 마음에 드는 사람과 금방 친해질 자신이 있다.	1	2	3	4	5
29.	나는 팀장이나 조직의 장이 되었을 때 아랫사람과 잘 지낼 자신이 있다.	1	2	3	4	5

Ⅲ. 참여하신 그룹을 떠올리면서 본인의 생각과 가장 유사한 답을 골라주시면 됩니다.

문항		전혀 그렇지 않다	보통이다			매우 그렇다
1.	일시적이었지만, 이 그룹에 정말 속해있는 느낌을 받았다.	1	2	3	4	5
2.	만약 유사한 그룹 활동을 다시 하게 된다면, 다른 팀에 가기보다는 좀 전에 속했던 팀에 남겠다.	1	2	3	4	5
3.	그룹 멤버들은 목표를 달성하는 데에 충실하였다.	1	2	3	4	5
4.	그룹 내에서 서로에 대한 믿음이 보였다.	1	2	3	4	5
5.	그룹에 대해 멤버들은 소속감을 가졌다.	1	2	3	4	5
6.	각 멤버들은 서로의 차이와 능력을 알고 존중해주었다.	1	2	3	4	5
7.	그룹의 멤버들은 자신의 생각과 느낌들을 표현할 때 솔직하고 개방된 태도를 보였다.	1	2	3	4	5

IV.

▣ 아래에 있는 문항들을 잘 읽어 주시고 **그룹 활동 중** 귀하의 행동과 관련하여 최대한 **직관적이고 솔직하게 응답하여** 주시길 부탁드립니다. 각 문항에 대해 동의하시는 정도에 "O" 표하여 주시면 됩니다.

문항	전혀 그렇지 않다	보통이다	매우 그렇다		
1. 나는 그룹의 논의를 돕기 위해 내가 알고 있는 사실, 의견, 아이디어, 느낌, 그리고 정보를 제공하였다.	1	2	3	4	5
2. 나는 적당한 커뮤니케이션 능력을 사용하며, 멤버들간 효과적인 커뮤니케이션을 촉진시키는 데에 기여했다.	1	2	3	4	5
3. 나는 그룹에게 우리에게 주어진 과제에 주목 함으로써 방향을 제시하고, 과제를 마치기 위한 절차를 제시하였다.	1	2	3	4	5
4. 나는 의견의 불일치를 해결하기 위해 멤버들 간의 자유로운 논의를 촉진시키고, 갈등이 잘 해결 되지 않을 때, 이를 중재 했다.	1	2	3	4	5
5. 나는 멤버들을 웃게 하고 함께 일하는 동안 즐거움을 증진시키기 위해 농담을 하고 유쾌한 코멘트들을 하기도 했다.	1	2	3	4	5
6. 나는 하나의 압축된 문장으로 멤버들의 기여한 바를 요약하고 멤버들의 다양한 행동들을 하나로 종합시켜 이야기했다.	1	2	3	4	5
7. 나는 멤버들에 대하여 지지, 포용, 호감을 표현하고, 그룹 내에서 건설적인 행동을 했을 때는 적절한 인정과 칭찬을 해주었다.	1	2	3	4	5
8. 그룹의 모든 자원들을 사용하여 과제를 마치기 위해서 멤버들에게 사실, 정보, 의견, 아이디어, 그리고 느낌을 물어보았다.	1	2	3	4	5
9. 나는 멤버들이 참여할 수 있도록 독려했다. 그리고 나는 그들에게 내가 그들의 기여를 값지게 여긴다는 것을 알게 했다.	1	2	3	4	5

10.	나는 다루고 있는 과제를 파악하고 이해했는지 확인하기 위해 다른 멤버들에게 그룹의 답안과 결론을 설명하도록 했다.	1	2	3	4	5
11.	나는 그룹에게 에너지를 불어넣어준다. 그리고 나는 우리 그룹이 목표를 달성하는 동안 흥미를 가질 수 있도록 노력했다.	1	2	3	4	5
12.	나는 그룹이 어떻게 돌아가고 있는지 관찰하고 이를 토대로 멤버들이 더 잘 함께 더 잘 일할 수 있도록 도움을 주었다.	1	2	3	4	5
13.	각 멤버들이 그들의 이야기를 공유할 때 다른 멤버들이 이를 중요하게 받아들였다.	1	2	3	4	5
14.	그룹 내에서 알 수 없는 서열 같은 것이 있었다.	1	2	3	4	5
15.	멤버들은 함께 협력하며 그룹의 과업을 해 나갔다.	1	2	3	4	5
16.	그룹을 나타내는 말로 “따로 노는”이라는 설명이 잘 어울린다.	1	2	3	4	5
17.	각 멤버들은 그룹의 목적에 대해 기여한 바가 있다.	1	2	3	4	5
18.	한 멤버가 다른 멤버들이 해야 할 일을 경 해주었다.	1	2	3	4	5
19.	각 멤버들은 그룹의 멤버들과 함께 정보를 공유하여 그룹의 효율성을 높였다.	1	2	3	4	5
20.	각 멤버들은 그룹의 목표를 공유하고 있었다.	1	2	3	4	5
21.	그룹이 문제에 봉착했을 때, 최선을 다해 해결하고자 하였다.	1	2	3	4	5
22.	멤버들은 서로를 격려해주었다.	1	2	3	4	5
23.	멤버들은 서로에 대해 인내를 가지고 대했다.	1	2	3	4	5
24.	멤버들은 서로에게서 중요한 능력들을 보고 배울 수 있었다.	1	2	3	4	5

V.

▣ 아래에 있는 문항들을 잘 읽어 주시고 **그룹 활동 중** 귀하의 행동과 관련하여 최대한 **직관적이고 솔직하게 응답하여** 주시길 부탁드립니다. 각 문항에 대해 동의하시는 정도에 "0" 표하여 주시면 됩니다.

	문항	전혀 그렇지 않다	보통이다	매우 그렇다		
1.	그룹은 과업을 위한 책임을 잘 공유 하였다.	1	2	3	4	5
2.	그룹의 멤버들이 동일한 목적과 의도를 가지고 있었다.	1	2	3	4	5
3.	그룹은 전체적으로 열정을 보였다.	1	2	3	4	5
4.	그룹은 윤리적으로 과업을 해결하였다.	1	2	3	4	5
5.	멤버들은 전체적으로 서로 많은 피드백을 주고 받았다.	1	2	3	4	5
6.	그룹의 멤버들은 전체적으로 협조를 잘 하였다.	1	2	3	4	5
7.	각 멤버들은 자신이 과업에 기여할 수 있는 시간을 효율적으로 가졌다.	1	2	3	4	5
8.	그룹은 전체적으로 자발적으로 움직였다.	1	2	3	4	5
9.	그룹은 전체적으로 오가는 논의에 잘 관여하였다.	1	2	3	4	5
10.	그룹의 멤버들은 함께 하는 것을 즐겼다.	1	2	3	4	5
11.	그룹은 친밀한 유대(rapport)를 형성하였다.	1	2	3	4	5
12.	그룹은 전체적으로 쾌활한 분위기였다.	1	2	3	4	5
13.	그룹은 전체적으로 손발이 잘 맞았다.	1	2	3	4	5
14.	그룹의 멤버들은 그룹 활동에 공정하게 참여했다.	1	2	3	4	5
15.	그룹의 멤버들은 서로의 말에 귀를 기울였다.	1	2	3	4	5
16.	그룹은 전체적으로 단합이 잘 되는 분위기였다.	1	2	3	4	5
17.	그룹의 멤버들은 서로를 잘 받아들였다.	1	2	3	4	5
18.	그룹의 멤버들은 서로에게 편해 보였다.	1	2	3	4	5
19.	멤버들은 그룹에 대해 강한 소속감이 있었다.	1	2	3	4	5
20.	그룹의 멤버들은 전체적으로 서로를 지지하는 모습을 보였다.	1	2	3	4	5

21.	그룹 내의 다른 멤버들과의 수평적 커뮤니케이션이 명확하고 자유롭게 이루어졌다.	1	2	3	4	5
22.	그룹 내의 리더 역할을 한 사람(들)은 과업 해결 과정에서 생기는 문제들에 대해 지도안을 주었다.	1	2	3	4	5
23.	격식에 얽매이지 않은 편안한 대화들이 활발하게 오갔다.	1	2	3	4	5
24.	그룹 내의 커뮤니케이션은 흥미롭고 도움이 되었다.	1	2	3	4	5
25.	그룹 내에서 활발히 정보들이 교류되었다.	1	2	3	4	5
26.	그룹 내의 리더 역할을 한 사람(들)은 아이디어들에 대해 열려있었다.	1	2	3	4	5
27.	그룹 내의 리더 역할을 한 사람(들)은 나에게 주의를 기울이고 말을 잘 들어주었다.	1	2	3	4	5
28.	그룹 내에서 내가 한 일들은 전체적으로 봤을 때 적절했다	1	2	3	4	5
29.	<u>나는</u> 그룹의 뚜렷한 목적의식을 갖고 있었다.	1	2	3	4	5
30.	<u>나는</u> 더 높은 이상과 목적을 추구하였다.	1	2	3	4	5
31.	<u>나는</u> 멤버들의 노력에 대해 열정을 보였다.	1	2	3	4	5
32.	<u>나는</u> 멤버들에게 한번도 생각해보지 않은 것들에 대해 고려해보도록 장려했다.	1	2	3	4	5
33.	<u>나는</u> 과제를 해결할 때 다양한 관점들을 모색하였다.	1	2	3	4	5
34.	<u>나는</u> 멤버들이 기준을 넘어서 그 이상으로 노력할 수 있도록 격려했다.	1	2	3	4	5
35.	<u>나는</u> 멤버들과 공유하고 있는 합의 사항들을 지켜나갔다.	1	2	3	4	5
36.	<u>나는</u> 다른 멤버가 과제에 기여하면 긍정적인 피드백을 주었다.	1	2	3	4	5
37.	<u>나는</u> 다른 멤버가 과제에 기여하면 특별히 인정을 해주었다.	1	2	3	4	5
38.	<u>나는</u> 멤버들과 함께 목표를 설정하였다.	1	2	3	4	5
39.	<u>나는</u> 멤버들은 함께 목표를 발전시켰다.	1	2	3	4	5
40.	<u>나는</u> 멤버들에게 지시하기 보다는 과제를 해결해나갈 수 있도록 격려했다.	1	2	3	4	5
41.	<u>나는</u> 멤버들이 새로운 것들을 배워나가도록 격려했다.	1	2	3	4	5

42.	나는 멤버들을 겁먹게 하는 행동을 하였다.	1	2	3	4	5
43.	나는 다른 멤버가 논의에 도움이 되지 않았을 때 이를 지적했다.	1	2	3	4	5

다음 질문에 대해 주십시오. 동그라미 쳐주십시오

1. 귀하는 서바이벌 시나리오를 접해본 경험이 있습니까? (인터넷, 방송 혹은 퀴즈북 등)

없다 / 있다

2. 귀하는 서바이벌 시나리오를 해결해본 경험이 있습니까?

없다 / 있다

3. 귀하는 서바이벌 시나리오에 대한 관심이 어느 정도입니까?

전혀 없음	보통			매우 많음	
1	2	3	4	5	

4. 귀하는 서바이벌 시나리오 과제에 대해 어떻게 느꼈습니까?

문항	전혀 아님	보통			매우 맞음
(ㄱ) 흥미로웠다.	1	2	3	4	5
(ㄴ) 재미있었다.	1	2	3	4	5
(ㄷ) 힘들었다.	1	2	3	4	5
(ㄹ) 혼란스러웠다.	1	2	3	4	5

5. 귀하는 오늘 그룹 활동에 대해 어떻게 임하셨습니까?

문항	전혀 아님	보통			매우 맞음
(ㄱ) 그룹 내에서 자율적으로 행동했다.	1	2	3	4	5
(ㄴ) 그룹 활동에 몰입하였다.	1	2	3	4	5

[ 이하 설문지 끝 ]

다음은 실험 참가자에 대한 기본 인적 사항입니다.

이름: \_\_\_\_\_

성별: 여/ 남

학과: \_\_\_\_\_

과정: 학부/ 석사/ 박사

실험에 참가해주셔서 진심으로 감사합니다. 모든 정보는 실험 이외에 목적으로 사용되지 않습니다. 귀하의 기여는 커뮤니케이션 연구에 도움이 될 것입니다. 실험에 관해 문의 하고 싶으신 분은 [comm.groupstudy@gmail.com](mailto:comm.groupstudy@gmail.com) 혹은 010-8008-4052로 연락 주시기 바랍니다. 감사합니다. 좋은 하루 되십시오.

## Appendix B. Coding Sheet for Video Recordings

Leadership behaviors (task/relational)	전혀 그렇지 않다		보통이다	매우 그렇다	
1. 참가자는 그룹의 논의를 돕기 위해 내가 알고 있는 사실, 의견, 아이디어, 느낌, 그리고 정보를 제공하였다.	1	2	3	4	5
2. 참가자는 적당한 커뮤니케이션 능력을 사용하며, 멤버들간 효과적인 커뮤니케이션을 촉진시키는 데에 기여했다.	1	2	3	4	5
3. 참가자는 그룹에게 주어진 과제에 주목 함으로써 방향을 제시하고, 과제를 마치기 위한 절차를 제시하였다.	1	2	3	4	5
4. 참가자는 의견의 불일치를 해결하기 위해 멤버들간의 자유로운 논의를 촉진시키고, 갈등이 잘 해결되지 않을 때, 이를 중재 했다.	1	2	3	4	5
5. 참가자는 멤버들을 웃게 하고 함께 일하는 동안 즐거움을 증진시키기 위해 농담을 하고 유쾌한 코멘트들을 하기도 했다.	1	2	3	4	5
6. 참가자는 하나의 압축된 문장으로 멤버들의 기여한 바를 요약하고 멤버들의 다양한 행동들을 하나로 종합시켜 이야기했다.	1	2	3	4	5
7. 참가자는 멤버들에 대하여 지지, 포용, 호감을 표현하고, 그룹 내에서 건설적인 행동을 했을 때는 적절한 인정과 칭찬을 해주었다.	1	2	3	4	5
8. 참가자는 그룹의 모든 자원들을 사용하여 과제를 마치기 위해서 멤버들에게 사실, 정보, 의견, 아이디어, 그리고 느낌을 물어보았다.	1	2	3	4	5
9. 참가자는 멤버들이 참여할 수 있도록 독려했다. 그리고 멤버들에게 그들의 기여를 값지게 여긴다는 것을 알게 했다.	1	2	3	4	5
10. 참가자는 다루고 있는 과제를 파악하고 이해했는지 확인하기 위해 다른 멤버들에게 그룹의 답안과 결론을 설명하도록 했다.	1	2	3	4	5
11. 참가자는 그룹에게 에너지를 불어넣어준다. 그리고 그룹이 목표를 달성하는 동안 흥미를 가질 수 있도록 노력했다.	1	2	3	4	5
12. 참가자는 그룹이 어떻게 돌아가고 있는지 관찰하고 이를 토대로 멤버들이 더 잘 함께 더 잘 일할 수 있도록 도움을 주었다.	1	2	3	4	5
<b>Shared leadership</b>	<b>전혀 그렇지</b>		<b>보통이다</b>	<b>매우 그렇다</b>	

	않다				
1. 각 멤버들이 그들의 이야기를 공유할 때 다른 멤버들이 이를 중요하게 받아들였다.	1		3	4	5
2. 그룹 내에서 알 수 없는 서열 같은 것이 있었다.	1	2	3	4	5
3. 멤버들은 함께 협력하며 그룹의 과업을 해나갔다.	1	2	3	4	5
4. 그룹을 나타내는 말로 “따로 노는”이라는 설명이 잘 어울린다.	1	2	3	4	5
5. 각 멤버들은 그룹의 목적에 대해 기여한 바가 있다.	1	2	3	4	5
6. 한 멤버가 다른 멤버들이 해야 할 일을 정해주었다.	1	2	3	4	5
7. 각 멤버들은 그룹의 멤버들과 함께 정보를 공유하여 그룹의 효율성을 높였다.	1	2	3	4	5
8. 각 멤버들은 그룹의 목표를 공유하고 있었다.	1	2	3	4	5
9. 그룹이 문제에 봉착했을 때, 최선을 다해 해결하고자 하였다.	1	2	3	4	5
10. 멤버들은 서로를 격려해주었다.	1	2	3	4	5
11. 멤버들은 서로에 대해 인내를 가지고 대했다.	1	2	3	4	5
12. 멤버들은 서로에게서 중요한 능력들을 보고 배울 수 있었다.	1	2	3	4	5

국문초록

# 자발적으로 운영되는 소집단에서 출현하는 리더십: 원인과 결과에 대한 연구

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본 연구는 자발적으로 운영되는 소집단 (Self-Managing Groups, 이하 SMG) 내 리더십의 출현 혹은 출현하는 리더십 (Emergent Leadership)이라는 개념을 리더십 행동과 인식으로 개념화하였다. 커뮤니케이션 행동과 리더십에 대한 인식은 SMG내 독특한 리더십의 형태로 여겨졌다. 출현하는 리더십은 통합적으로 타당도를 높이기 위한 방법으로 자기 보고와 관찰 보고 두 가지 차원을 통해 검토되었다. 특히, 본 연구에서는 잠재 프로파일 분석(Latent Profile Analysis, 이하 LPA)이라는 통계적 방법을 통해 실험실 내에서의 SMG들을 구분 가능한 군집으로 분류하였다. 그 다음, 리더십의 출현에 미치는 개인과

집단 차원의 원인과 그 결과물들을 검토하여, SMG내 리더십의 효과를 입증하고자 하였다.

먼저, 출현하는 리더십을 구체화하는 통합적이고 SMG에 적절한 개념이 부재했기 때문에 무엇보다 이에 대한 개념화가 중요했다. SMG가 가지고 있는 자발적이고, 즉흥적인 특성을 고려하여 리더십 행동과 인식을 개념화에 사용하였다. SMG내 출현하는 리더십은 모든 사람으로부터 관찰 가능한 과업과 관계적인 리더십 행동들, 그리고 리더십이 얼마나 공동으로 수행이 되었는지에 대한 인식을 통해 개념화되었다.

둘째, 작은 즉흥적인 소집단내 출현하는 리더십을 관찰하기 위해 116명의 참가자를 대상으로 31개의 그룹을 임의로 배정하는 실험적 방법을 사용하였다. 설문지와 영상 촬영을 통해 참가자들의 행동과 인식을 측정하였다. 두 명의 관찰자들이 참가자들의 행동을 토대로 채점한 데이터와 참가자 본인들이 인식한 SMG 내의 리더십에 대한 인식과 소통 능력, 커뮤니케이션 만족도 등을 설문지로 평가하였다.

셋째, LPA를 통해 리더십 행동과 인식을 기준으로 SMG들은 세 가지 군집으로 분류되었다. 각 군집은 다른 군집들로부터 구분되는 공통적인 프로필 혹은 특성을 갖고 있었다. 세 군집은 “제 1군집: 중간 수준의 리더십 출현,” “제 2군집: 높은 수준의 리더십 출현,” 그리고 “제 3군집: 낮은 수준의 리더십 출현”으로 각각 명명되었다. 결과적으로 각 군집들은 리더십 행동의 양과 리더십의 공동적인 수행에 대한 인식의 상, 중, 하 수준으로 구분되었다고 보았다.

넷째, SMG의 리더십을 이해하기 위해 구분된 각각의 군집들을

바탕으로, 그 원인과 결과물들과의 관계에 대한 분석을 실시하였다. 출현하는 리더십에 영향을 주는 원인으로는 개인의 소통 능력, 결과물로는 집단 성과, 응집성, 소속감, 그리고 커뮤니케이션 만족도를 살펴보았다. 그 결과, 소통 능력이 높은 사람들이 반드시 가장 좋은 결과물들을 가져오는 팀을 만드는 것은 아니었다. 오히려 SMG내에서 자연스럽게 출현하는 구성원들의 리더십 행동들과 이에 대한 긍정적인 인식이 더 큰 영향을 미쳤다. 본 연구는 개인의 능력이나 노력보다 집단 내 상호작용 과정에서 나오는 구성원들의 즉흥적인 노력과 행동들이 더 중요함을 밝혀내었다. 따라서, 리더십 실제 조직 내의 SMG에서 출현하는 리더십 행동과 이를 통해 형성되는 인식들이 가진 함의에 대해 논의하였다.

결론적으로, 본 연구는 구성원들이 자발적으로 운영되는 소집단의 맥락으로부터 영향을 받고 있음을 제시하였다. 서로 과업이나 관계적인 리더십 행동을 활발하게 주고받는 집단에서는 그렇지 않은 집단보다 구성원들이 실제 더 많은 리더십 행동을 하였다. 비록 SMG들의 성과나 커뮤니케이션 만족도, 소속감에 대해서는 큰 효력을 발휘하지 못했지만, 이는 실험적 SMG들이 가진 내재적인 한계에서 찾아볼 수 있다. 그럼에도 불구하고 본 연구는 개인적 특성보다 리더가 정해지지 않은 자발적인 소집단의 특성으로 나타나는 현상들이 개인의 행동과 집단에 큰 영향을 미칠 수 있음을 시사한다.

주요어: 자발적으로 운영되는 소집단, 출현하는 리더십, 리더십 커뮤니케이션 행동, 리더십에 대한 인식, 소통 능력, 집단 응집성 및 소속감, 커뮤니케이션 만족도, 집단 성과

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