

# The Impact of Group Support Systems on Collaborative Learning Groups' Stages of Development

Susan R. Feather

*Interest in the use of collaborative learning strategies in higher education has been manifested in recent years as educators are constantly challenged to seek new ways to prepare students for the workplace, where teamwork and technological innovation are the norm. Technological tools that support group processes, including brainstorming, voting, and group writing, are currently available within group support systems (GSS). However, the use of such tools in a collaborative learning setting in higher education has not been fully explored. Using Johnson and Johnson's stages of development of learning groups (1997) as the conceptual framework, the impact of GSS on the group development process of two separate graduate student groups was explored. Johnson and Johnson's seven-stage model expanded upon Tuckman's (1965) four-stage schemata of group development. High-performing groups reach the sixth stage, functioning maturely and productively. Two groups (Group A and Group B) formed by the instructor of a graduate class on workplace education discussed and analyzed two journal articles in order to write reviews. All sessions were highly structured and both groups collaborated with and without GSS. Findings demonstrated that Group A developed very differently from Group B in both environments. Group A's pattern of development was erratic and, in contrast to Group B, they never evolved into a high-performing group. During their second session in the traditional classroom, Group B spent most of the time functioning maturely and productively. Charts depicting the stages of development were based on the coding of session transcripts. A comparison of the charts showed that the technology had little impact on group development; however, the GSS-supported sessions were accompanied by reduced rebelling and differentiating (Stage Four). Recommendations for future research are discussed.*

Teamwork has transformed the way employees function in the corporate environment. In fact, as we approach the new millennium, the individualist may find him/herself "lost at sea" in an organizational setting—no one person has all the resources or information required to accomplish a task alone.

A simultaneous shift from an instructor-centered approach to a learner-centered approach in academia has forced educators to devise new ways to facilitate the learning process. Although collaborative teamwork has been used in the academic arena for quite some time, especially on the K-12 level, pedagogues in higher education are exploring its use in order to provide a student-centered learning environment. Indeed, the role of the instructor is more frequently viewed as a

*facilitator of learning, rather than a deliverer of instruction.*

Technological tools exist that support teamwork in the form of group support systems (GSS), which are "interactive computer-based environments that support concerted and coordinated team effort toward completion of joint tasks" (Nunamaker, Briggs, Mittleman, Vogel, & Balthazard, 1996-97, p. 165). Inherent in the technology are tools, such as Electronic Brainstorming, Vote, and Categorizer, which provide structure for collaboration and promote

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increased participation with simultaneous and anonymous input. GSS can be found in over 1,500 worldwide locations (Nunamaker et al., 1996-97, p. 169); many corporations use GSS by leasing electronic meeting rooms to facilitate the meeting process and assist in task completion.

GSS tools manifested themselves more slowly into academic settings where early use paralleled what transpired in the corporate arena— facilitation of the meeting process and task completion. For example, O'Connor and Bronner's (1995) case study investigated GSS use to support a curriculum development project demonstrating that the technology served as a "collaboration enabler" (p. 9). The potential of using GSS as an instructional tool has been discussed (Aiken, 1992, 1993; Easton, Easton & Hergert, 1992; Hunt & Burford, 1994) and a few researchers have incorporated GSS use in the classroom to assess its impact in a learning environment. Sormunen and Ray (1996) found that students using GSS for collaborative writing demonstrated higher performance levels and Walsh et al. (1996) uncovered increased levels of participation in a GSS-supported class setting. Although Caouette and O'Connor (1998) studied the impact of GSS on the developmental process in the corporate arena and found that conflict was reduced, a gap in the literature remains involving the study of GSS' impact on the development of collaborative learning groups in academia.

## Background for the Study

As the 21<sup>st</sup> century approaches, academic institutions are challenged as never before with skyrocketing costs, increasing demands from corporations for graduates able to function as knowledge workers in teamwork-oriented organizations, and greater diversity in the student population. In addition to cultural differences, an increasing number of *nontraditional* students, as defined by age and life situation, are seeking post-secondary degrees (Hammonds et al., 1997). In fact, recent research has demonstrated that nearly 50 percent of today's college students are over the age of 24 and women account for 65 percent of that group (The Demographics of Continuing Education, 1997).

These changes have compelled educational institutions to rethink the means by which they deliver instruction. The value of collaborative learning has been attested to as an active, learner-centered teaching approach, which ". . . reforms classroom learning by changing students from passive recipients of information given by an expert teacher to active agents in the construction of knowledge" (Goodsell et al., 1992, p. 4). Although the collaborative approach has been recognized for its benefits, such as increased participation and achievement, its use in higher education has been minimal and research on the adult learner using this instructional technique has been sparse.

The lens through which this research was conducted was Johnson and Johnson's (1997) seven-stage model of learning group development:

1. Defining and structuring procedures and becoming oriented.
2. Conforming to procedures and getting acquainted.
3. Recognizing mutuality and building trust.
4. Rebellious and differentiating.
5. Committing to and taking ownership of the goals and other members.
6. Functioning maturely and productively.
7. Terminating.

Derived from Tuckman's (1965) extensive study of groups interacting *without* a facilitator, Johnson and Johnson's work reflects many years of study in the classroom with a link to group development theory.

### *Stage One—Defining and Structuring Procedures and Becoming Oriented*

During this phase, group members learn what is expected of them and the instructor clarifies the procedures to be used and generally organizes the group at the outset. This stage is most similar to Tuckman's *forming* stage. GSS' requisite preplanning, where all can participate in setting the agenda, may facilitate the organizational process needed to ensure that everyone agrees on the problem and a means to resolve it.

### *Stage Two—Conforming to Procedures and Getting Acquainted*

As students begin to follow procedures set forth by the instructor and interact around the task, weaknesses and strengths of each participant begin to emerge. Dependency upon guidance from the instructor is still apparent while commitment to each other and to the group's goals has not yet transpired. GSS could enhance this stage because students are provided with tools to conform to procedures more easily. Additionally, although getting acquainted may occur differently as group members input ideas at their workstations, GSS tools were designed to augment verbal interaction, not supplant it.

### *Stage Three—Recognizing Mutuality and Building Trust*

This stage is accompanied by group recognition of their interdependence and trust building occurs as members divulge their thoughts, ideas, conclusions, and feelings while experiencing acceptance, support, and reciprocation of their disclosures from their fellow group members. GSS may support mutuality and trust as discussion points and feedback are anonymous. The shy student has an opportunity to contribute as much as the more aggressive, potentially dominating student. Additionally, display of all ideas on the public screen connotes equality and good ideas tend not to get lost. Further, the display of all ideas may promote interdependence because ideas displayed for all to see are perceived as *ours*, not *mine*.

### *Stage Four—Rebelling and Differentiating*

Tuckman (1965) termed this stage of development *storming*. However, in Tuckman's schemata, the role of an instructor was not considered. Students may challenge the authority of the instructor during this phase. This shift toward independence is in sharp contrast to the behavior of the group during Stage Two—Conforming to Procedures. Moreover, disagreements and conflicts occur in an effort to

differentiate participants from one other. Because of the way GSS sessions are structured and the simultaneity and anonymity features of the system, rebelling and differentiating may be diminished. Therefore, the use of GSS may facilitate the group's progression toward the next stage of development.

### *Stage Five—Committing to and Taking Ownership of the Goals and Other Members*

Stage Five is marked by dependence on other group members and personal commitment to the collaborative nature of the experience. Heretofore, the group still *belonged* to the instructor; it is in this phase that changeover to independence—begun in Stage Four—becomes finalized. Each group member believes that he/she can rely on the support and assistance of other group members.

As students work together on a well-defined problem, or task, which has received *buy-in*, the structure afforded by GSS may supplant, or support, the instructor's role. Moreover, if the time spent in Stage Four (rebelling and differentiating) has been reduced, a feeling of "teamness" may develop more quickly.

### *Stage Six—Functioning Maturely and Productively*

The sixth stage is the hallmark of a fully functioning, high-performing team. The group's maturity, autonomy, and productivity become apparent as members' commitment to one another and to the collaborative accomplishment of the group's goals increases. Moreover, as group members are able to handle controversy in a constructive manner, problem solving is achieved through consensus, leadership is shared, and the group functions harmoniously through division of labor. Many groups do not achieve this level of productivity as they cycle through stages of development either because they do not possess the necessary group skills or the instructor does not have the skills to establish cooperative interdependence within the group.

With the output of structured tools that GSS provides, such as graphs that provide statistical data (ranges, means, modes, and standard deviations), a group can easily see how close, or far apart, it is to consensus. Therefore, the technology provides a means by which both the instructor and group can assess how well members are collaborating. Conflicts may be resolved more rationally and the group may be able to spend more creative time working on the task.

### *Stage Seven—Terminating*

Terminating is inevitable because every group's time together is finite. As the learning group ends, the termination period is potentially upsetting as emotional bonds have been formed among group members. The problems of separation are dealt with as members leave the group experience behind to move on to new experiences. When students have worked collaboratively, supported by tools that keep the group on task and reduce uncertainty about procedures, it may mean that members will progress through their work and disband with a feeling of accomplishment.

With the availability of technological tools, such as GSS, to support collaborative work processes, it was believed that enhancement of the developmental process might occur. Therefore, this investigation's goal was to reveal specifics about the use of GSS with collaborative learning groups and their stages of development as they worked together.

### **Focus of the Study**

The purpose of this study was to ascertain whether the use of GSS in a collaborative environment impacted the stages of development through which learning groups cycle. Three research questions guided the project:

RQ1 Given a collaborative learning task, do learning groups progress through all stages of development *with* and *without* the use of GSS?

RQ2 Given a collaborative learning task, do learning groups reach the sixth stage of development—functioning maturely and productively—*with* and *without* the use of GSS?

RQ3 Given a collaborative learning task, how much time do learning groups spend in each of the specific stages of development *with* and *without* the use of GSS?

**Note:** RQ2 was framed as a separate research question because time spent in Stage Six correlates with group harmony, effectiveness, and productivity.

### **The Method and Procedures**

The study was conducted at a large northeastern university in an urban setting. The instructor of a graduate class in workplace education formed two groups—Group A and Group B. An integrated variation of the Learning Together (LT) approach, where students work together on a common project, and Jigsaw (JIG), in which students work on a specific piece of the project, was assigned.

#### *The Tasks*

The tasks entailed two journal articles requiring the creation of written reviews based on group discussion and analysis. Task #1 was an article on training and development from the *Harvard Business Review* and Task #2, an article on workplace literacy from the *Harvard Educational Review*.

Using a variation of techniques recommended by Frederick (1994) for holding effective class discussions, the groups' collaborative tasks were guided by a series of steps. Preparation for the sessions involved the preliminary reading of each article and responding to instructor-prepared handouts with questions designed to provide structure around which students could discuss, analyze, and write an article review. The following questions guided the groups' sessions:

1. Categorize the article as to reference domain, i.e., an action research report, an opinion article, case study, etc.

2. Find a quotation which you think best illustrates the thesis of the article.
3. Find a quotation that you exceptionally liked.
4. Find a quotation that you exceptionally disliked.
5. Find a quotation that you found difficult to understand.
6. Describe the author(s)' point(s) of view, i.e., are any biases apparent?
7. What impact (or relevance) did the article have on you personally?

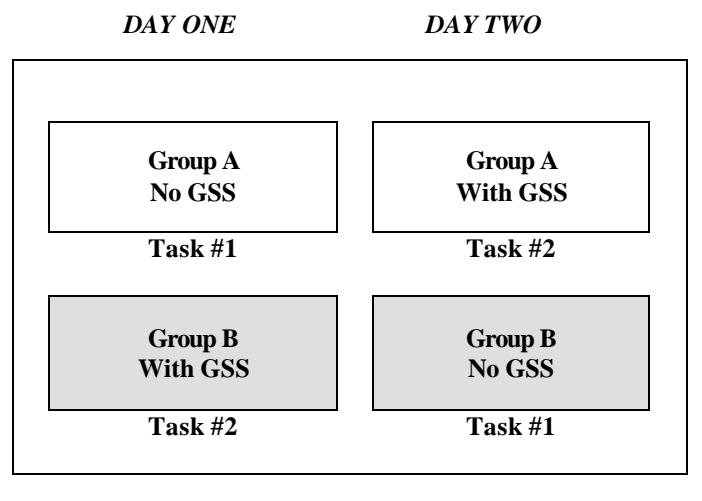
An eighth category, entitled *Comments and Conclusions*, added during the group sessions provided the means for pooling all ideas together for use in the closing paragraphs of the article reviews.

Four consecutive sessions were arranged—two for each group—on two consecutive days. On the first day (Session One), Group A was given Task #1 to work on manually in a traditional classroom setting; for the second session, Group B was given Task #2 to collaborate on using GSS in a computer-supported classroom. On the second day (Session Three), Group A was given Task #2 to work on with computer support and Group B was given Task #1 to collaborate on manually. Figure 1 shows a graphic depiction of the study design.

During all collaborative sessions, the instructor fulfilled the role of facilitator. Additionally, audio/videotaping captured all verbal discussion and visual behavior of the participants. The traditional classroom was arranged with large tables and chairs in a U-configuration to promote face-to-face collaboration. The instructor, acting as recorder, used a flip chart on which the proposed agenda (pending approval by the group) was written. The agenda, used in both the traditional and computer-supported settings, and a description of procedures is shown in Table 1.

In the traditional classroom, flip chart pages were affixed to the wall, one for each of the eight categories previously described. Folders containing legal pads and pens were provided to

**Figure 1: Collaborative Learning Group Process**



each group member for notetaking and the writing of his/her piece of the article review.

The computer-supported classroom emulated that of the traditional classroom, thus providing an atmosphere that promotes group interaction. A facilitator workstation, operated by the technical facilitator, was connected to a public display screen at the front of the classroom, which projected all members' contributions. Figure 2 shows a graphic representation of the computer classroom.

### *The Groups/Time Constraints*

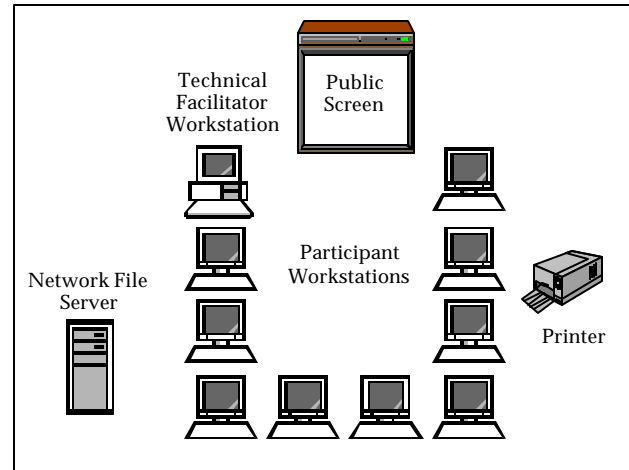
The size of each group was an important consideration. As the size of the group increases, the opportunity for individual participation and reward decreases, yet the group must be large enough to ensure diversity. Evidence on group size for learning groups suggests that the optimal group ranges from four to six members (Johnson & Johnson, 1997, p. 470).

As 13 students were able to participate in the collaborative sessions, the instructor formed one group of 7 members (Group A) and one group of 6 members (Group B). A group participation grade was the reward for the students' collaborative project. As the sessions were arranged according to the class calendar, time frames were delimited to two hours each on two consecutive class days.

*Data Collection and Treatment*

Videotapes. All four collaborative sessions were videotaped using two cameras on tripods strategically placed to provide views of both sides of the classroom. Videotapes were transcribed and reviewed again so that visual behavior could be noted by the researcher to be used as ancillary material. Transcripts were then coded by the researcher and a team of raters matching a researcher-developed coding sheet to themes and phrases that were articulated during the sessions. The researcher and independent rater matched transcripts to codes searching for target words and/or phrases

**Figure 2: Computer-Supported Classroom**



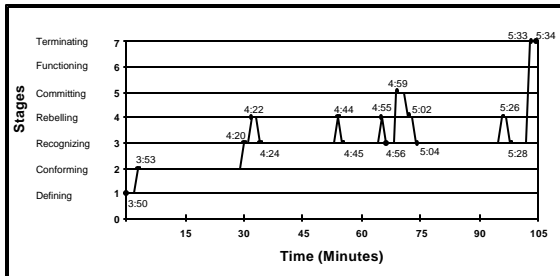
**Table 1: Proposed Agenda—Description of Procedures**

AGENDA	TRADITIONAL CLASSROOM	COMPUTER-SUPPORTED CLASSROOM
I Introduction (Instructor)		
What are we doing?	Purpose was conveyed verbally.	Purpose was conveyed verbally.
Ground Rules	Flip chart was used.	Flip chart was used.
Review Agenda	Agenda was reviewed verbally.	Agenda was reviewed verbally.
II List Category Ideas		
Review and Discuss	Using markers, students transferred answers from previously prepared handouts onto flip chart pages mounted on the classroom wall. Discussion was held verbally in both environments.	Students keyed answers from previously prepared handouts into the Topic Commenter tool which had been set up for the seven categories, allowing them to input simultaneously at their workstations.
II Vote (on key ideas)	Vote was done via discussion and a hand vote.	The 10-point scale Vote tool was used in GroupSystems V.
IV Write Draft of Report	Key ideas decided upon in the previous step were expanded upon individually in writing using paper and pens.	Topic Commenter was used for this step.
V Readout/Review & Finalize	Students read back their paragraphs for editing by the group.	The technical facilitator read back paragraphs as they were displayed on the public display screen and individual workstations. Students discussed and directed the technical facilitator to make revisions.

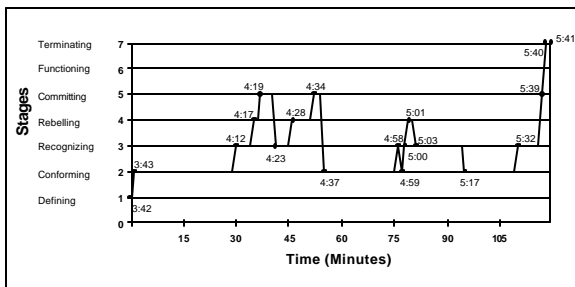
and noting the number of the appropriate stages as listed on the coding sheet. If disagreement occurred, a third rater was consulted to resolve the discrepancy.

Observation Logs. Observation logs for each session were created in which the researcher described seating arrangements; recorded key statements, themes, and time frames; and made notes about group interaction. After each session, the instructor reviewed the log and added any additional comments or observations in the margins. The logs were used as ancillary material to support other forms

**Figure 3: Group A: Stages of Development in the Traditional Classroom on Day One (Task #1)**



**Figure 4: Group A: Stages of Development in the Computer-Supported Classroom on Day Two (Task #2)**



of data collection and to provide a richer understanding of the transcripts.

Other Data Sources. A review of the hard copy printouts from the computer-supported sessions and flip chart pages and student assignments provided ancillary material to support the videotapes, session transcripts, and observation logs.

## Findings and Discussion

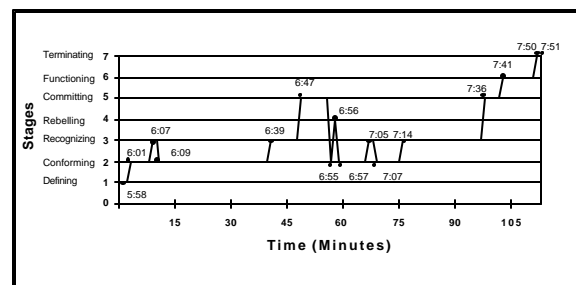
- RQ1 Given a collaborative learning task, do learning groups progress through all stages of development *with* and *without* the use of GSS?
- RQ2 Given a collaborative learning task, do learning groups reach the sixth stage of development—functioning maturely and productively—*with* and *without* the use of GSS?

Data depicting all collaborative sessions were used to answer RQ1 and RQ2 as they both

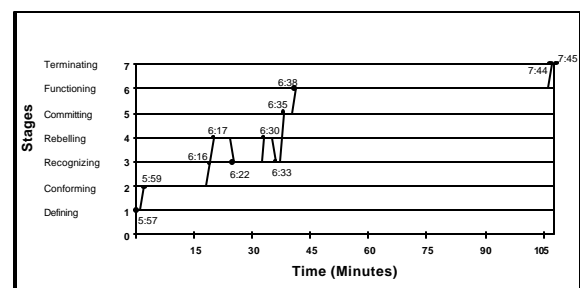
related to *how* Group A and Group B progressed through the stages of development. After transcripts were matched against the coding sheet and stages annotated in the margins, videotapes were reviewed and specific times at which the group reached a specific stage of development noted on all session transcripts. The results demonstrated the order of stages, whether stages were missing (particularly Stage Six), and the duration of each stage. The researcher created graphs depicting all four collaborative sessions, which illustrate how each group cycled through the stages of development in the traditional classroom setting (without GSS) and in the computer-supported classroom (with GSS). Additionally, the observation logs were reviewed and analyzed to lend support to the transcripts. Hard copy printouts of the GSS sessions, as well as student assignments and flip chart pages, were used as ancillary data. Figures 3, 4, 5, and 6 graphically depict the four sessions.

Group A's progression through the stages of development *with* and *without* GSS (Figures 3 and 4) was erratic with a great deal of fluctuation

**Figure 5: Group B: Stages of Development in the Computer-Supported Classroom on Day One (Task #2)**



**Figure 6: Group B: Stages of Development in the Traditional Classroom on Day Two (Task #1)**



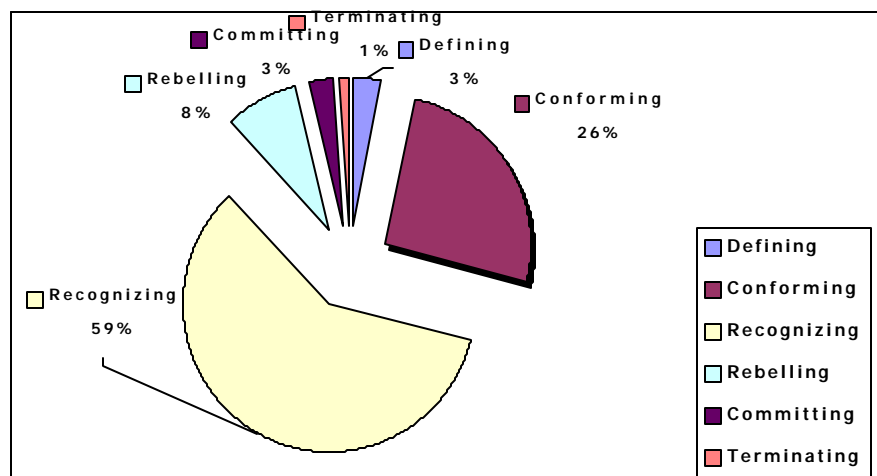
between stages. Moreover, the group never reached a point where it functioned maturely and productively (Stage Six). This may have possibly been due to group composition; several group members were non-native English speakers and verbal and written communication was often difficult. For example, during the writing of their article review, frequent clarification was necessary. When the technical facilitator (GSS session) read back what was written anonymously by one participant, nervous laughter resonated the room and one of the group members commented, “That’s not really the quotation.” Another member chimed in simultaneously, “That’s not really what we discussed!”

In contrast, Group B’s progression through the stages of development (Figures 5 and 6) was fairly smooth both *with* and *without* GSS, although the graphic depiction of their second session (without GSS) demonstrates that the group functioned maturely and productively rather quickly having reached Stage Six approximately one-third of the way through the session.

Further, Group B continued to function as a high-performing team for the remainder of the session. What may have impacted the group’s more productive performance in the second session, however, may not have been the lack of computer support, but

simply that they had worked together as a group prior to the manual session. Hackman (1990) refers to this phenomenon as a “self-fueling spiral” (p. 481)—that is, groups who begin to get on a good track seem to work even better as time passes. Hackman further posits that groups who run into trouble during their collaboration may become more ensnared in their difficulties as they work together, which may explain the erratic development of Group A both *with* and *without* GSS.

**Figure 7: Group A: Time (percentage of session) Spent in Specific Stages in the Traditional Classroom on Day One (Task #1)**



**Table 2: Group A: Amount of Time Spent in Specific Stages and Frequency of Stages in the Traditional Classroom**

Stage of Development	Total Time (Min.) Spent in Each Stage	Frequency
1. Defining and Structuring Procedures and Becoming Oriented	3	1
2. Conforming to Procedures and Getting Acquainted	27	1
3. Recognizing Mutuality and Building Trust	62	6
4. Rebelling and Differentiating	8	5
5. Committing to and Taking Ownership of the Goals and Other Members	3	1
6. Functioning Maturely and Productively	0	0
7. Terminating	1	1
<b>Total Minutes in Session</b>	<b>104</b>	

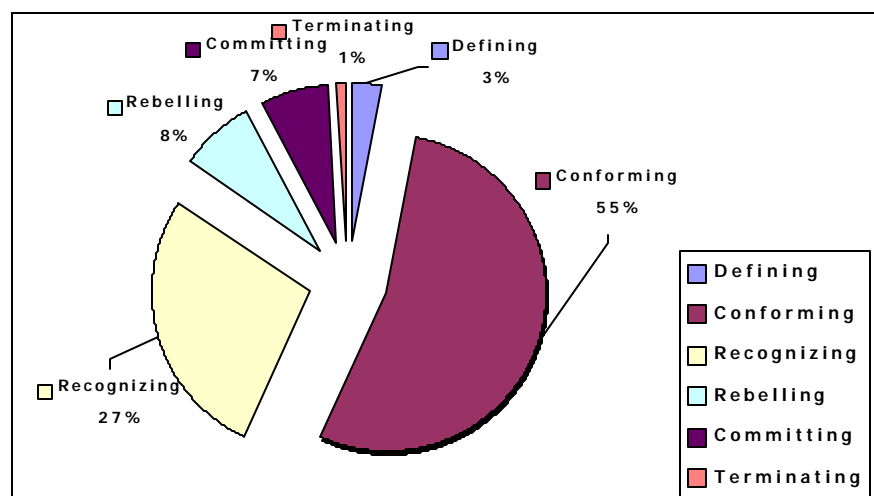
RQ3 Given a collaborative learning task, how much time do learning groups spend in each of the specific stages of development *with* and *without* the use of GSS?

RQ3 related to the amount of time spent in each stage of development. Data collected during the collaborative sessions were used to answer this question. Using the transcripts with annotated times, charts depicting the amount of time spent in each stage and tables representing the amount of time in and frequency of each stage were created. (See Figures 7-10 and Tables 2-5.)

Looking at Group A's sessions in both the traditional classroom and the computer-supported setting, most noticeable is the fact that the group *never* functioned maturely and productively. Additionally, Group A spent most of the session *with* GSS in Stage Two—Conforming to Procedures and Getting Acquainted (Figure 8; Table 3). Although an equal percentage of the session (8%) both *without* and *with* GSS was spent rebelling and differentiating, the group cycled back to this stage more frequently *without* the technology. The amount of time to accomplish the task was slightly longer *with* computer support (104 vs. 119 minutes).

When comparing Group B's sessions, the group cycled through all stages and, as with Group A, most of the computer-supported session entailed conforming to procedures and getting acquainted (Stage Two). In fact, Group B cycled back to this stage five times *with* GSS. As it was the first day that they collaborated, however, it may simply have been because they needed more clarification on procedures on Day One than on Day Two—after they had worked together for a session. Additionally, although Group B spent

**Figure 8: Group A: Time (percentage of session) Spent in Specific Stages in the Computer-Supported Classroom on Day Two (Task #2)**



**Table 3: Group A: Amount of Time Spent in Specific Stages and Frequency of Stages in the Computer-Supported Classroom**

Stage of Development	Total Time (Min.) Spent in Each Stage	Frequency
1. Defining and Structuring Procedures and Becoming Oriented	1	1
2. Conforming to Procedures and Getting Acquainted	66	4
3. Recognizing Mutuality and Building Trust	33	6
4. Rebelling and Differentiating	10	3
5. Committing to and Taking Ownership of the Goals and Other Members	8	3
6. Functioning Maturely and Productively	0	0
7. Terminating	1	1
<b>Total Minutes in Session</b>	<b>113</b>	

most of the traditional class functioning maturely and productively (Stage Six; 61% vs. 8%), more time was spent rebelling and differentiating (Stage Four; 7% vs. 1%). Group B also took slightly longer to accomplish the task when they used GSS.

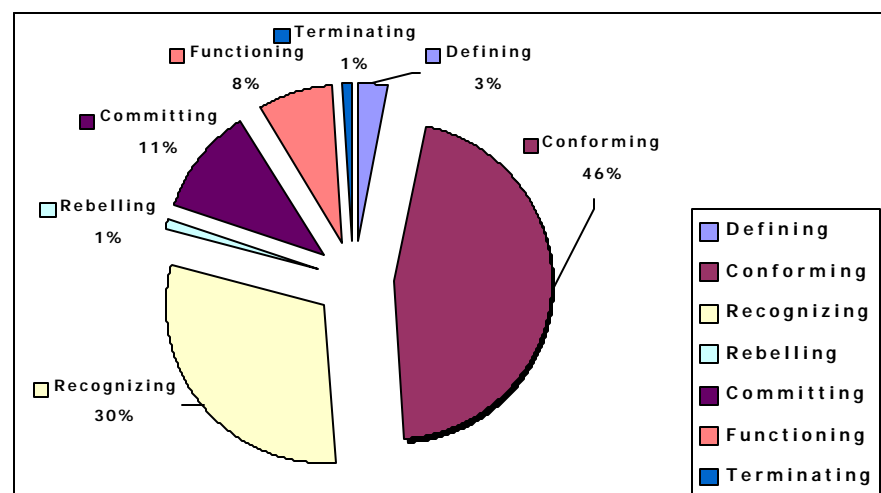
To summarize, Group A and Group B developed very differently from one another in their collaborative sessions. Group A's progression through stages was very erratic and the group *never* functioned maturely and productively. Group B, in sharp contrast, cycled through stages much more smoothly with a more linear progression and functioned maturely and productively *with* and *without* computer support. As Hackman (1990) noted after studying groups from many different realms, although groups possess commonalities, each group in some ways, is "like *no* other group, a unique entity unto itself with its own special problems, opportunities, and ways of operating" (p. 479).

Both Group A and Group B needed slightly more time *with* computer support to accomplish the task, not an uncommon finding in the literature. Both groups spent a great deal of time conforming to procedures and getting acquainted (Stage Two) with GSS. With Group A, several of whom had not previously used GSS, it may have been because of an "uncomfortableness"

with the technology or that it was treated as a novelty. "... first-time users may react to the novelty of the technology potentially clouding the intended treatment influences" (Anson, Bostrom, & Wynne, 1995, p. 206).

The instructor may also have had an impact on group processes in this study. A review of the transcripts and observation logs uncovered a leadership style that was sometimes autocratic and sometimes laissez-faire. Research has demonstrated that collaborative groups may need

**Figure 9: Group B: Time (percentage of session) Spent in Specific Stages in the Computer-Supported Classroom on Day One (Task #2)**



**Table 4: Group B: Amount of Time Spent in Specific Stages and Frequency of Stages in the Computer-Supported Classroom**

Stage of Development	Total Time (Min.) Spent in Each Stage	Frequency
1. Defining and Structuring Procedures and Becoming Oriented	3	1
2. Conforming to Procedures and Getting Acquainted	52	5
3. Recognizing Mutuality and Building Trust	34	4
4. Rebelling and Differentiating	1	1
5. Committing to and Taking Ownership of the Goals and Other Members	13	2
6. Functioning Maturely and Productively	9	1
7. Terminating	1	1
<b>Total Minutes in Session</b>	<b>113</b>	

intervention to reinforce group skills. GSS research has also shown that flexible process intervention can improve perceptions of interpersonal relationships and group processes significantly (Anson, 1990). Consistent with prior research (Caouette & O'Connor, 1998), conflict (rebelling and differentiating) was reduced in the GSS sessions.

**Summary**

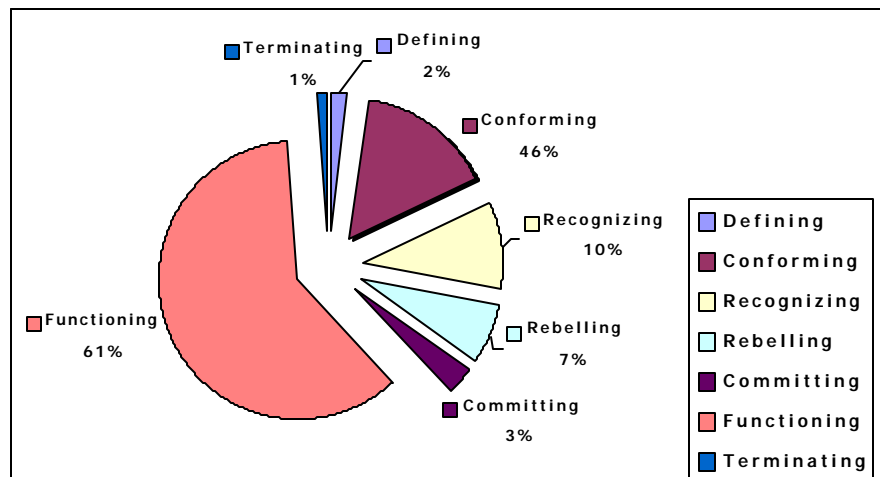
This investigation demonstrated that learning groups' progression through developmental stages may not necessarily be cyclical, whether assisted by GSS or not. Moreover, group composition, characterized by different cultures and different skill sets, as well as facilitation skills, may have impacted group processes during the collaborative sessions.

Future research endeavors should include the role of the instructor (facilitator) and his/her instructional style and the impact of GSS on the development of collaborative learning groups. Additionally, the impact of GSS on the development of groups in dispersed settings should be explored. With distance education initiatives increasing exponentially, what impact may technology have on group development as groups interact synchronously

and asynchronously online?

As with this investigation, research has shown that conflict can be reduced with GSS. However, according to group development theory, conflict is a necessary part of the developmental process. For example, part of Johnson and Johnson's (1997) sixth stage (functioning maturely and productively) is managing conflict maturely. It is, therefore, recommended that the role of conflict in the developmental process with GSS be further explored.

**Figure 10: Group B: Time (percentage of session) Spent in Specific Stages in the Traditional Classroom on Day Two (Task #1)**



**Table 5: Group B: Amount of Time Spent in Specific Stages and Frequency of Stages in the Traditional Classroom**

Stage of Development	Total Time (Min.) Spent in Each Stage	Frequency
1. Defining and Structuring Procedures and Becoming Oriented	2	1
2. Conforming to Procedures and Getting Acquainted	17	1
3. Recognizing Mutuality and Building Trust	11	3
4. Rebelling and Differentiating	8	2
5. Committing to and Taking Ownership of the Goals and Other Members	3	1
6. Functioning Maturely and Productively	66	1
7. Terminating	1	1
<b>Total Minutes in Session</b>	<b>108</b>	

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