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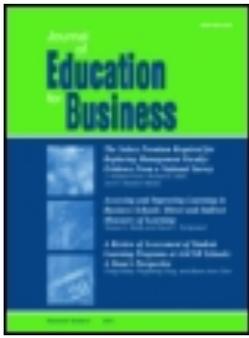
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What do students think about group work in business education? An investigation into the benefits, challenges, and student-suggested solutions

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ABSTRACT

The authors sought to gain insight on how students view group learning and development as part of their business education experience. Specifically, the authors categorize benefits and challenges using S. A. Wheelan's (2005) integrated model of group development. Additionally, they investigate (from the students' perspective) best practices that instructors can implement to improve students' group work experience. As group work is critical in business classrooms, the authors suggest instructors should focus more on the earlier stages of group development by assigning groups based on students' strengths and weaknesses, offering a better introduction to groups, and assigning more group-related time or meetings during class.

KEYWORDS

Group dynamics; group work; teamwork

Increasingly, group-based exercises are becoming more common in business education as educators are placing more emphasis on group learning as a way of developing teamwork skills among students (Brutus & Donia, 2010). This is especially true in the field of business, where group projects are more common relative to other disciplines (Batra, Walvoord, & Krishman, 1997). Group work provides a diverse perspective on the course material, while developing social skills and practical values that may be instrumental for management careers (McKinney & Graham-Buxton, 1993). Through group work, students achieve personal growth, along with a lesson in interpersonal communication, interdependence, individual accountability, and respect for diversity (Johnson, Johnson, & Smith, 2007).

For some instructors, managing group work can be a difficult challenge. Group work often forces students to discuss their ideas, confront counterarguments, and think beyond their own perspectives, which can be an uncomfortable experience. As such, Felps, Mitchell, and Byington (2006) found students may withhold effort, possess negative mood or attitude, or violate interpersonal norm in group-based exercises. When such conflicts arise among group members, emotional frustration with their group work may ensue (De Dreu & Weingart, 2003). This may subsequently negatively impact how a student views a particular instructor or their attitudes towards the course. Although studies pertaining to group development challenges are profound, what we do not

know is the scale in which these challenges affect students' group experience.

Within the group development literature, Wheelan and colleagues (Wheelan, 2005; Wheelan, Davidson, & Tilin, 2003; Wheelan & Hochberger, 1996) have elaborated on the maturation of group development through four distinct stages: Stage I: dependency and inclusion, Stage II: counterdependency and fight, Stage III: trust and structure, and Stage IV: work and termination.

The objective of this research is to examine students' perspective of benefits and challenges of group work as part of their business classroom experience, while accounting for Wheelan's four stages. First, we determine the benefits and challenges that occur in business students' group work from students' perspective. Then, we categorize them according to Wheelan's four stages. For example, at what stage of group development do students gain (benefits) and struggle (challenges) the most? This research will help instructors gain insights on what benefits to leverage and what challenges require remedial action (i.e., priorities). Moreover, we uncover student-suggested solutions on what instructors can do to enhance students' group work experience.

The integrated model of group development

The group development model conceived by Wheelan and colleagues (e.g., Wheelan et al., 2003; Wheelan & Hochberger, 1996) is a useful conceptual framework for

understanding key components and processes during different stages of group development. It was selected because it integrates seminal group development theories with rigorous empirical research and it has been tested in a business context (Wheelan et al., 2003; Wheelan & Hochberger, 1996). The five-stage model (form, storm, norm, perform, adjourn) by Tuckman and Jensen (Tuckman, 1965; Tuckman & Jensen, 1977) also examined small group development. Empirical testing of the model uncovered weaknesses and its relevance outside of the field of group therapy, where it has strong roots, has been questioned (Cassidy, 2007; Rickards & Moger, 2000). Moreover, a noteworthy critique of traditional stepwise models was put forth by Gersick (1988), who posited that groups go through a pattern of “punctuated equilibrium” (p. 32), and do not move forward on a pre-determined path. This was refuted by Wheelan et al. (2003) in an empirical study of 114 work groups. More recent research on models of teamwork confirms that stepwise models, such as Wheelan’s, may be constructive when different stages are viewed according to their context, function, or purpose (Berlin, Carlstrom, & Sandberg, 2012). We also acknowledge that group development may not necessarily follow a sequential pattern (for criticisms, see Homan, 2001). Thus, we chose Wheelan’s Integrated Model of Group Development as the guiding framework to understand the processes in each of the stages. We elaborate below:

Stage I (dependency and inclusion) is marked by high anxiety, uncertainty, and politeness (Wheelan, 2005). Group members are concerned with acceptance and may be concerned about membership stability (Delucchi, 2006). As such, groups tend to rely more and become dependent on the leader (Wheelan & Hochberger, 1996). As such, politeness, tentativeness, and defensiveness are prevalent in this initial stage, which may hinder group productivity and initiatives (Wheelan et al., 2003).

Stage II (counterdependency and fight) is marked by power struggles, search for identity, and role confusion (Wheelan, 2005). In this stage, issues pertaining to free-riding, domineering, and cognitive and social loafing may arise as students formulate their role in the group (Maiden & Perry, 2011). Indeed, issues such as free riding can be problematic as less motivated students may earn higher grades at the cost of lower grades for the high-performing students. Stage II may present more conflicts among group members as they try to create an identity by articulating goals and ideas about the group structure (Wheelan et al., 2003). Although conflicts may lead to destruction of relationships, a resolution to such conflicts may increase cohesion, dependency, and productivity (Wheelan & Hochberger, 1996).

Stage III (trust and structure) is marked by group goals, group structure, and development of norms and procedures. By this stage, group members are feeling more secure and trusting of each other. Feelings of security make people feel that they can make a greater contribution than that they would otherwise (Bradley, White, & Mennecke, 2003). Information and work being shared is to further the group’s agenda rather than an instrument to prove an individual’s worth to the group (Wheelan & Hochberger, 1996). The group is also adept to forming subgroups and delegation of tasks is becoming seamless as the group begins to function as a whole to focus on the task at hand (Wheelan, 2003).

Stage IV (work and termination) is marked by group stability and habitual sharing of information. There is a good understanding of knowledge and expertise within the group (Wheelan, 2005). The group gives and receives feedback to increase effectiveness and performance; students invest time and energy on goal achievement and task accomplishment (Wheelan et al., 2003). Moreover, this stage also includes issues pertaining to termination. Marks and O’Connor (2013) found that business majors are more willing to terminate group members than are nonbusiness majors. Underperforming members may face greater scrutiny in this stage and steps may be taken to terminate members from the team. Finally, when groups separate, matters relating to performance outcome become magnified.

The concept of group development is well documented in literature, but it is important to examine how group work functions in the context of business classrooms. We thus identify the components of the four stages in a business education context and conduct an exploratory research to categorize the benefits and challenges within each stage. Further, we also explore what particular areas of group development need the most attention. Finally, we synthesize best practices from the student perspective to ensure that students’ needs are being met.

Research method

A total of 128 upper year undergraduate students in a Canadian university enrolled in a retail management program were recruited to participate in this study. Over the course of the term, students were put in groups of four to six and completed various group projects. All projects were worth 30% of the final grade, the maximum allowed by the university for group work. The university’s Research Ethics Board approved the project prior to the start of the term. A short recruitment script was read by participating faculty after the group projects were submitted. A

research assistant administered the questionnaire distribution and completion process while the faculty member left the room during a class session. The course topics included multichannel retailing, social media marketing, and retail strategy. The size of the class ranged from 50 to 103 students. When combining the three courses, there were 253 students.

The methodology we utilized to obtain data for this study is the critical incident technique (CIT). The CIT method has been an appropriate classification technique for generating empirical data about phenomena of interest that relates to classroom experiences (Hoffman & Lee, 2015). There are several benefits of using this method. First, the inductive nature of CIT is useful for conducting exploratory research (Grempler, 2004). Second, CIT provides an accurate and in-depth record of events that tend to generate concrete reflections of one's experience (Bitner, Booms, & Mohr, 1994). Third, the type of data collected allows researchers to categorize content that is appropriate for our investigation (Hoffman & Lee, 2014).

The primary goal of this study is to collect respondents' experiences (qualitative verbatim) that involve incidents about their group work. One of the criticisms with CIT is that it is prone to recall errors (Zhang, Beatty, & Mothersbaugh, 2010). Thus, we were careful to administer the questionnaire in the current academic term to ensure that they are responding about the group that they are currently working with. More specifically, the data were collected at the end of the term after the group work has commenced in each of the classes. The group work itself varied throughout the term (fall [December]), but the data was collected in the final two weeks of the semester. For benefits and challenges, we asked the participants to indicate two separate incidents. For example, "please think of a benefit you gained from working with a group in this X class" and "please think of a challenge you experienced from working with a group in this X class." For student suggested solutions, we asked the participants to indicate one best practice. For example, "please name one method that you would like your professor to do to enhance your group work experience in this X class." Upon collecting the data, the authors examined the incidents to ensure that the appropriate criteria for inclusion were met. We employed similar procedures as described by Hoffman and Lee (2014). To qualify as an incident, the responses were required to meet the following rules: (a) it must involve an incident that is related to their group or a group work activity; (b) it must have taken place in the current academic term, which ensures that they are not

Table 1. Profile of the participants.

Characteristic	<i>N</i>
Gender	
Female	87
Male	41
Total	128
Student year	
Third	45
Fourth	81
Fifth	2
Total	128
Student class	
Class 1	40
Class 2	27
Class 3	61
Total	128
Student type	
Retail students	111
Nonretail students	17
Total	128

presenting a scenario from the past; and (c) it must provide sufficient detail to be interpreted by the coders. After careful examination of the incidents, the final tally showed 128 students (response rate = 51%) provided 250 incidents of benefits, 224 incidents of challenges, and 128 incidents of best practices.

Then, the answers were coded and categorized into four stages of group development. Two independent coders analyzed the incidents to obtain interrater reliability. The interrater reliability for the categorization was at 97.1%. All outstanding differences were resolved through further discussion.

Results: Benefits, challenges, and best practices

A profile of the participants can be found in Table 1. We categorized the incidents into the four stages. Table 2 provides the number of incidents for benefits, challenges, and best practices. Additionally, sample quotes of benefits and challenges for each stage are reported in the Appendix. For both benefits and challenges, Stage II (counterdependency and fight) accounted for nearly half of the incidents (42.4% of the benefits and 50.9% of the challenges), although there were no significant differences between the two stages. That is, students did not find Stage II to be more or less beneficial in their group work. Interestingly, there were some differences among other stages. For example, after Stage II, students found Stage I (dependency and inclusion) to be most beneficial (accounting for 27.6% of the benefits) which is in contrast to the challenges (7.1% of the challenges). Within Stage I, students acquired more benefits and faced less challenges. Contrastingly, within Stage III (trust and structure), we found the opposite. Regarding challenges, Stage III was ranked second in the

Table 2. Group work benefits and challenges.

Benefits (<i>n</i> = 128; 250 incidents)	Challenges (<i>n</i> = 128; 224 incidents)	Frequency of mention (benefits)	Frequency of mention (challenges)
Stage I: Dependency and inclusion Working with students from different programs; chance to network; feeling of belonging within a group; ability to work with peers with different strengths and weakness; improve networking skills	Stage I: Dependency and inclusion Connecting with group members; problems initiating communication with peers; understanding weaknesses and strengths in group members	27.6%	7.1%
Stage II: Counterdependency and fight Confidence in expressing ideas; adapt to work ethics of other group members, some students enjoyed cooperation among group members; improved organizational skills; dividing work load among members, sharing ideas; communication and brainstorming with group members	Stage II: Counterdependency and fight Difficult to organize and coordinate meetings; lack of communication, hard to work with students from another program; uneven division of work among group members; some members were bossy and confrontational; difficult to coordinate meetings among all group members; difficult to compromise; difficult to motivate and engage every group member; difficult to communicate with members without social media	42.4%	50.9%
Stage III: Trust and structure Gain ability to manage tasks; learning from each other; hands-on experience, sharing work among group members; learned to prioritize; assigning tasks among group members	Stage III: Trust and structure Time management; difficulty trusting other's work; student feeling that others were not contributing equally; unequal sharing of responsibilities; conflicts among group members; different work ethics; being too dependent on each other in group work	14.8%	33.5%
Stage IV: Work and termination Applied theories learned in class; learned valuable skills such as working under time limit and pressure; improved communication skills; improved presentation skills	Stage IV: Work and termination Some students felt that they deserved more credit than others; outcome was not as hoped; lack of peer evaluation; not enough feedback on group work	12.0%	3.1%
Miscellaneous Total	Miscellaneous	3.2% 250 incidents	5.3% 224 incidents

number of incidents reported (33.5% of the challenges). Conversely, Stage III only accounted for 14.8% of the benefits. Together, this reveals that, within Stage 3, students experienced greater challenges than benefits. Last, Stage IV (work and termination) had the fewest incidents in both stages. Stage IV accounted for 12% of the benefits while accounting for 3.1% of the challenges.

Regarding best practices, Table 3 provides students' suggestion of best practices that instructors can implement to enhance student's group work experience. Based on students' suggested solutions, it appears that students desire professors to be more involved in the earlier stages of group development (Stage I and Stage II). Within Stage I (31.3% of solutions), students suggested solutions pertaining to method of group formation, group introduction, and group contracts. Within Stage II (35.9% of solutions), students suggested solutions pertaining to increased group work time, more group meetings, and clear assigned roles. Within Stage III (12% of solutions), students suggested solutions pertaining to periodic check-ins on the group and accountability. Finally, within Stage IV (18% of the solutions), students suggested solutions pertaining to increased feedback from professors and increased emphasis on peer evaluation.

General discussion

The present research categorizes benefits and challenges that relate to Wheelan's (2005) group development model as perceived by business students. A major contribution of this research is that it draws perspectives from students, and provides what stages are most important to group work. As business education evolves to stay

Table 3. Student suggested solutions for group work.

Student solutions (<i>n</i> = 128; 128 incidents)	Frequency of mention (suggestions)
Stage I: Dependency and inclusion e.g., students pick their own teams, professor assign student groups, group contracts, better introduction to groups, choosing group members with different strengths/weaknesses	31.3%
Stage II: Counterdependency and fight e.g., increased group work time, have assigned roles for each project, increase the amount of group meetings	35.9%
Stage III: Trust and structure e.g., periodic check-ins from professor, professors facilitating group cohesion	12.5%
Stage IV: Work and termination e.g., more feedback from professor, stronger emphasis on peer evaluation	18.0%
Miscellaneous Total	2.3% 128 incidents

relevant (Paton, Chia, & Burt, 2014) we provide examples from contemporary business education literature that places our research in context. There has been student-focused group work research on peer evaluations (Anson & Goodman, 2014; Wager & Carroll, 2012), student attitudes (Marks & O'Connor, 2013), and general benefits and satisfaction related to team or group work (Betta, 2016). While these articles have identified the importance of the student perspective in group work, none that we have identified examine how students experience different development stages and how faculty may respond with specific solutions, a key contribution of our research.

The findings of this research show that students focused the most, in terms of offering solutions, on earlier stages of the Wheelan's (2005) model. Specifically, Stage II places an emphasis on planning how the work will be equitably accomplished. For Stage I, student suggestions included group contracts (facilitate inclusion), better introduction to groups (reduce anxiety and uncertainty), and a variety of methods for group formation that may alleviate stress, such as choosing group members with the right skills to get the tasks accomplished. To encourage productivity and positive social interaction during the earlier stages, instructors may allocate time for students to work on the assignment during their designated class time. Although this may not guarantee that students will do more work, it does enable in-class follow-up by the instructor. This may include probing for information on assigned roles to foster group cohesion and productivity. It may also help to mitigate conflicts before they intensify. According to West (2012), social and task components are key elements for team effectiveness. Teams are socially charged and a positive team environment is critical to building relationships and a sense of belonging.

Second, there are substantial challenges in Stage III, although they are reduced from Stage II. Benefits drop considerably in Stages III and IV. How might an instructor play a role in reducing challenges and increasing benefits? In Stage III, a key area to focus is on strengthening the group structure, developing group norms, and executing procedural development. In Stage IV, it appears that group stability is critical. According to Anson and Goodman (2014), teams in undergraduate courses need high quality and continual feedback to function well. Often, one peer evaluation (suggested as a solution for Stage IV by students in this research) is not enough and it may be timed too late. The authors implemented an electronic "Team Improvement Process" (Anson & Goodman, 2014, p. 29), which includes a peer evaluation, team improvement plan, and a progress report, to address

ongoing challenges. Based on the information gathered, we further suggest four best practices based on the stages with fewest benefits and greatest challenges:

- To increase the benefits in Stage I, the instructors should devise a hybrid group system where students are allowed to select a member to be in their own team, but others will be randomly selected. This becomes a happy medium between allowing students to select their own team versus the instructor randomly selecting students into a team. This provides support (having a friend on the same team) while allowing for diversity and networking opportunities.
- To decrease the challenges in Stage II, the instructor should establish a team contract that includes specific roles and responsibilities of the group assignment. Make this as part of the grading criteria.
- To decrease the challenges in Stage II, the instructor should provide students with suggested workload distribution to reduce the perception of unequal responsibilities.
- To increase the benefits in Stage IV, the instructor should reinforce the theories and skills learned to strengthen students' knowledge base.

Limitations and future research

This study is not without its limitations. First, we acknowledge that by gathering data from three different classes, the group difference may not be homogenous from one course to another. Because group projects differ from one class to another, it is also plausible that their group experience may differ. As such, there is a limitation in pooling the data together as one. In the future, it may be worthwhile to collect data from one course/one setting to achieve homogeneity in the dataset. Second, the data is limited to upper year undergraduate students. The experience as upper year students may differ from those of incoming first-year students or graduate students. Thus, the context of the data is limited to upper year students and may not be generalizable to incoming undergraduate or graduate students. Further, the data were collected using business undergraduate students. The dynamics of group work can be quite different in other concentrations (e.g., engineering, nursing). Thus, more research is necessary to corroborate our findings and to increase external validity. Third, CIT is a retroactive method that measures respondents' previous experiences. To strengthen the confidence in our results, it may be fruitful to conduct a post-hoc survey study to confirm the findings from the CIT analyses. Fourth, Kaenzig, Hyatt, and Anderson (2007) showed that men and women have different learning styles and group-based experiences. Unfortunately,

because our program consists a 65:35 female-to-male ratio, our data was naturally skewed to having more women in our sample. Thus, more research is necessary to corroborate our results. Finally, the data we collected only reflects students' mention of these benefits and challenges. We do not know how impactful (negative or positive) they are to the student's classroom or university experience. We are also unsure how these benefits and challenges impact student performance in these groups. Thus, it may be worthwhile to pursue additional variables (e.g., project grades) in conjunction with this current research to see how these results affect performance.

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Appendix

Sample quotes from each stage (benefits and challenges)

Benefits	Notable quotes
Stage I	<p>"Got to work with people outside of my program"</p> <p>"Getting to know people and make friends"</p> <p>"Able to gain different knowledge from each individual"</p> <p>"Ability to work with people who have different strengths and weakness."</p> <p>"I was able to network and establish relationships with my peers"</p> <p>"Making new connections and relationships"</p>
Stage II	<p>"Learning how to work collectively as a group, then working separately"</p> <p>"Learned how to delegate tasks based on analysis at project and strength/weaknesses of each individual, in a time pressure environment"</p> <p>"Able to exchange creative ideas in order to plan best strategy in the quickest way"</p> <p>"There were many perspectives and opinions that contributed to the completion of each assignment"</p> <p>"Brainstorming. It helps to seek ideas from your group members if you are stuck on one idea"</p> <p>"Learned to communicate over various online platforms productively. There was very little miscommunication"</p> <p>"Able to discuss how to approach the project"</p>
Stage III	<p>"Working under pressure"</p> <p>"Everyone reminded each other about the time constraints in order to ensure the project is submitted in time without technical difficulties"</p> <p>"sharing workload"</p> <p>"Time management skills since some parts can only be done if another part is done, your work can affect others"</p> <p>"Workload was more manageable and made projects more interesting to have other contributions"</p> <p>"Each member of the group excelled in one area of the project so we all collaborated really well and there was no other person that did more work than others"</p>
Stage IV	<p>"Made us apply theory, which helps further assessment"</p> <p>"Real world experience, applying the concepts I just learned into actual tasks under a time constraint"</p> <p>"Better knowledge of material"</p> <p>"Gain self-esteem skill"</p> <p>"Developed better synergy form a communication aspect"</p> <p>"Overall a great contribution between each group members that is also reflected within our final grade"</p>
Challenges	Notable quotes
Stage I	<p>"I am very shy when it comes to talking to other people, so communication was a challenge"</p> <p>"Being placed in a group where you don't know anyone is difficult because you don't know their work ethics"</p> <p>"Understanding and coping with other's weaknesses, as well as my own"</p> <p>"One challenge from working with a group is to formulate a topic to start writing about"</p> <p>"Putting our egos aside for the benefit of the team"</p>
Stage II	<p>"Challenge is to coordinate and agree with an idea"</p> <p>"People had opposing opinions, difficult to work together sometimes"</p> <p>"Organizing each other to come to terms on our objectives and roles"</p> <p>"Too many ideas makes it challenging to have a unified understanding when completing an assignment"</p> <p>"Some group members understood the work more than others and didn't explain their insight very well to others"</p> <p>"Different people have different personalities, so having to understand different strengths and weaknesses and use them to work in a group"</p> <p>"not being able to express what each were thinking properly thus leading to frustration"</p> <p>"Clash of different personalities"</p> <p>"Communicating with all group members was difficult"</p> <p>"Not everyone has the same work ethic"</p> <p>"People not helping each other/not showing up to meetings"</p>
Stage III	<p>"Time management was a challenge but we overcame this challenge by working effectively"</p> <p>"It was difficult to make sure everyone was working to get work done on time and with care"</p> <p>"Sharing responsibilities with group members under a time constraint"</p> <p>"Uneven contribution of work by group"</p> <p>"When you split up parts and then collaborate them all together it is hard to make it flow"</p> <p>"Members not contributing equally or some members contributing inadequate work"</p> <p>"People not having done their parts done by the deadlines set"</p>
Stage IV	<p>"Some members felt they deserved more credit than others"</p> <p>"Some quality of work was not up to par with what the rest of the group expected"</p> <p>"How to raise voice and not be nervous when presenting"</p> <p>"Conflict of interest – some students aim to get A's, while other students aim to just get a passing grade"</p> <p>"When some members do more work than others and carry weight of the team and the whole team gets the same grade"</p>