

Collaborative learning heterogeneous versus homogeneous grouping



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As EFL teachers we are concerned with two main issues in language learning. The first issue addresses the skills students should acquire in EFL classes as a result of teaching-learning experiences. Such skills are often measured by students' achievement. The second issue takes account of the strategies EFL teachers use to help students acquire such skills and in turn increase their achievement.

Writing is a skill which requires efforts from both the student and the teacher. It is one of the four language skills which is given emphasis in second language learning (Inggris 2009). Writing is one of the skills which need to be mastered by the learners. They learn different genres of writing like descriptive, expository, recount and narrative based on the prescribed syllabus of their providers. Language learning involves learning the language code as well as the culture (appropriate ways of thinking and acting) associated with the language (Becket & Gonzales 2004).

Students' writing abilities are affected by the type of instructions teachers use within their classroom practices. Writing is one of the productive skills that learners are expected to achieve in order to ensure their communicative competence. While learning writing, students are supposed to get involved in many activities that enable them to produce a piece of writing at the end. They can be engaged for example in class discussions, act in role playing or get involved in peer editing. While engaged in classroom activities students build up experience and have more practice that may finally give the chance to reach a proper product of writing.

In teaching writing, teachers strive hard to find strategies to facilitate increasing students' achievement. There are many methods adopted by the teachers in teaching EFL writing in the classrooms. One of the methods recommended in teaching writing is the incorporation of cooperative learning (Kagan 2002). In ability grouping, students are grouped in a variety of more flexible ways so that they spend some portion of a school day in heterogeneous groups and some portion in homogeneous groups. (Grady et al 2007).

In most EFL classes, some learners perform better beyond grade-level, others struggle with target language, while another great part of the class falls somewhere in between. In their effort to meet the needs of such a diverse students, educators tend to assign pair and group work with students of different ability levels finding ways to involve all students in the activities. These ways could include communicative and cooperative tasks to allow scaffolding of less advanced students. In this classroom environment advanced level learners act as a bridge to facilitate the learning process and lower level classmates exhibit a willingness to cross that bridge (Sean, 2002). As a general rule, it would seem reasonable to suggest that classroom harmony might better be achieved in a group of motivated students who are allowed to participate and cooperate.

Statement of the problem

Teachers and educators seem to have struggled for decades to find answers to questions about heterogeneous and homogeneous grouping: Does anyone benefit from each? Is anyone harmed by each? Who benefits (or is harmed) the most? Why? Are there alternatives to these two types grouping? The <https://assignbuster.com/collaborative-learning-heterogeneous-versus-homogeneous-grouping/>

answers are not always clear-cut and often depend on whom you ask and what learning outcomes are considered important. To many educators, grouping is considered a sensible response to academic diversity. To others, the practice has harmful unintended consequences and should be abandoned. Indeed, research, logic, and emotion often clash when debating the topic of grouping. But what do we really know?

Consequently, this study aims to investigate the effect of homogeneous grouping versus heterogeneous grouping on EFL students achievement in writing in the hope that it may settle the argument on which is better for both high and low achievers. Homogeneous grouping can be defined as dividing students into small groups which include students of the same ability or level for example high achievers together and low achievers together . While heterogeneous grouping can be defined as dividing students into groups that include mixed or different levels, high and low achievers together.

Theoretical Framework

Cognitive growth springs from the alignment of various perspectives as individuals work to attain common goals. Both Piaget and Vygotsky saw cooperative learning with more able peers and instructors as resulting in cognitive development and intellectual growth (Johnson, et al., 1998). The assumption of behavioral learning theory is that students will work hard on tasks that provide a reward and that students will fail to work on tasks that provide no reward or punishment. Cooperative learning is one strategy that rewards individuals for participation in the group's effort. A review of the

literature on cooperative learning shows that students benefit academically and socially from cooperative, small-group learning (Gillies, 2002).

Cooperative learning can produce positive effects on student achievement (Cohen, 1986; Davidson, 1989; Devries & Slavin, 1978; Johnson & Johnson, 1989; Okebukola, 1985; Reid, 1992; Slavin, 1990). Academic benefits include higher attainments in reading comprehension, writing (Mathes, Fuchs, & Fuchs, 1997) and mathematics (Ross, 1995; Whicker, Nunnery, & Bol, 1997) and enhanced conceptual understanding and achievement in science (Lonning, 1993; Watson, 1991). Social benefits include more on-task behaviors and helping interactions with group members (Burron, James, & Ambrosio, 1993; Gillies & Ashman, 1998; McManus & Gettinger, 1996), higher self-esteem, more friends, more involvement in classroom activities, and improved attitudes toward learning (Lazarowitz, Baird, & Bolden, 1996; Lazarowitz, Hertz-Lazarowitz, & Baird, 1994).

According to Slavin (1987), there are two major theoretical perspectives related to cooperative learning — motivational and cognitive. The motivational theories of cooperative learning emphasize the students' incentives to do academic work, while the cognitive theories emphasize the effects of working together. Motivational theories related to cooperative learning focus on reward and goal structures. One of the elements of cooperative learning is positive interdependence, where students perceive that their success or failure lies within their working together as a group (Johnson, Johnson, & Holubec, 1986). From a motivational perspective, “cooperative goal structure creates a situation in which the only way group members can attain their personal goals is if the group is successful” (Slavin, <https://assignbuster.com/collaborative-learning-heterogeneous-versus-homogeneous-grouping/>

1990,). Therefore, in order to attain their personal goals, students are likely to encourage members within the group to do whatever helps the group to succeed and to help one another with a group task.

There are two cognitive theories that are directly applied to cooperative learning, the developmental and the elaboration theories (Slavin, 1987). The developmental theories assume that interaction among students around appropriate tasks increases their mastery of critical concepts (Damon, 1984). When students interact with other students, they have to explain and discuss each other's perspectives, which lead to greater understanding of the material to be learned. The struggle to resolve potential conflicts during collaborative activity results in the development of higher levels of understanding (Slavin, 1990).

The elaboration theory suggests that one of the most effective means of learning is to explain the material to someone else. Cooperative learning activities enhance elaborative thinking and more frequent giving and receiving of explanations, which has the potential to increase depth of understanding, the quality of reasoning, and the accuracy of long term retention (Johnson, Johnson, & Holubec, 1986). Therefore, the use of cooperative learning methods should lead to improved student learning and retention from both the developmental and cognitive theoretical bases.

Several studies have examined the effects of cooperative learning methods on student learning. Humphreys, Johnson, and Johnson (1982) compared cooperative, competitive, and individualistic strategies and concluded that students who were taught by cooperative methods learned and retained

significantly more information than students taught by the other two methods. Sherman and Thomas (1986) found similar results in a study involving high school students taught by cooperative and individualistic methods.

In a review of 46 studies related to cooperative learning, Slavin (1983) found that cooperative learning resulted in significant positive effects in 63% of the studies, and only two studies reported higher achievement for the comparison group. Johnson, Maruyama, Johnson, Nelson, and Skon (1981) conducted a meta-analysis of 122 studies related to cooperative learning and concluded that there was strong evidence for the superiority of cooperative learning in promoting achievement over competitive and individualistic strategies.

Johnson and Ahlgren (1976) examined the relationships between students' attitudes toward cooperation, competition, and their attitudes toward education. The results of the study indicated that student cooperativeness, and not competitiveness, was positively related to being motivated to learn. Humphreys, Johnson, and Johnson (1982) also found that students studying in a cooperative learning treatment group rated their learning experience more positively than did students in competitive and individualistic treatment groups. In a study involving elementary and secondary students Wodarski, et al., (1980) found that 95% of the elementary students enjoyed the cooperative learning activities and that they had learned a lot about the subject.

Cooperative learning has its roots in the theories of social interdependence, cognitive development, and behavioral learning. Some research provides exceptionally strong evidence that cooperative learning results in greater effort to achieve, more positive relationships, and greater psychological health than competitive or individualistic learning efforts (Johnson, Johnson, & Holubec, 1994)

Social interdependence theory views cooperation as resulting from positive links of individuals to accomplish a common goal. The Gestalt psychologist Kurt Koffka proposed in the early 1900's that although groups are dynamic wholes the interdependence among members is variable. Kurt Lewin (1948) stated that interdependence developed from common goals provides the essential essence of a group. This interdependence creates groups that are dynamic wholes. The power of the group is such that a change in any member or subgroup directly changes any other member or subgroup. Within cognitive development theory, cooperation must precede cognitive growth.

According to Emmer and Gerwels (2002) some research on cooperative learning has addressed instructional components. In a number of studies students have been taught interaction skills, such as how to question or to help each other so that they did not give answers but facilitated each other's thinking (Fuchs, Fuchs, Kazdan, & Allen, 1999; Gillies & Ashman, 1996, 1998; Nattiv, 1994; Webb, Troper, & Fall, 1995). And, when students are taught such skills, positive outcomes such as increased intrinsic motivation, liking for school, and self-esteem can result (Battistich, Solomon, & Delucchi, 1993).

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Homogeneous grouping

Homogeneous grouping has been proposed and implemented as a potential solution to meet the needs of the mixed ability classes, suggesting that students of different abilities can be gathered in groups of same ability thereby facilitating instruction (Slavin, 1987). This kind of grouping is based on the pedagogical principle that the teacher has the advantage of focusing instruction at the level of all the students in the particular group (Ansalone, 2000).

It is assumed that teachers of mixed ability classes can increase the pace and raise instruction level for high achievers whereas low level students can enjoy individual attention. So, advanced pupils are taught more difficult concepts while low achievers deal with simple and fewer things. Proponents of homogeneous grouping opine that it is an excellent means of individualizing instruction. Achievement is considered to increase as teachers adjust the pace of instruction to students' needs.

Kulik and Kulik (1982) and Slavin (1987) carried out meta-analyses of studies at the elementary school level, finding benefits of within-class ability grouping. Both low ability students and more advanced ones placed in separate groups, benefited from instruction addressed to their level. More recently, Mulkey et al (2005) found that same ability grouping has persistent instructional benefits for both high and low level students. Marsh (1987) supports HG as a way of coping with mixed ability classes assuming that grouping children homogeneously enables those in lower ability groups to profit with respect to self-evaluation by being isolated from advanced peers.

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Furthermore, Allan (1991) supports that pupils model their behaviour after the behaviour of similar ability children who are coping well with their school work. The supporters of homogeneous grouping conclude that research fails to support that homogeneous grouping doesn't accomplish anything (Loveless, 1998).

Although teachers of mixed ability classes seem to have positive attitudes towards homogeneous grouping (Scherer, 1993, Mulkey et al, 2005), the last quarter of the 20th century witnessed severe criticism of ability grouping. It has been declared that this type of grouping stigmatizes lower ability students, offering them inferior instruction. Several researchers argue that homogeneous grouping does not guarantee that all advanced or all weak students are alike. Matthews (1997) conducted a relevant research with students in grades 6 through 8 finding that gifted students are considerably more diverse than they are homogeneous. They vary in their degrees of advancement, their abilities, their learning styles and interests, their test-taking skills, and their social/emotional development. So, gathering advanced children of the mixed ability classes together in one group may not be the wisest solution to the problem.

Ability grouping may decrease the self-esteem and aspirations of low ability children and therefore decelerate their academic progress. Welner and Mickelson (2000) carried out quite an extensive research review finding that low ability children are exposed to lowered expectations, reduced resources and rote learning. Children's self-concept is affected and expectations are internalized (Ireson and Hallam, 1999, Gamoran, 1987). This implies that students of low ability in mixed ability classes are provided with low

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expectations if placed in same ability groups causing them feelings of inferiority. This is confirmed by Ansalone (2001) and Hallinan (1994) who demonstrated that children assigned to lower ability groups, are exposed to less and more simplified versions of the curriculum whereas high ability groups have broader and more challenging material covered. In this sense, Oakes (1992) and Wheelock (2005) support that educational benefits in mixed ability settings are not provided by homogeneous grouping but rather by a challenging curriculum and high expectations.

Research has accumulated evidence indicating that schooling tends to increase individual differences (Van der Veer and Valsiner, 1991).

Homogeneous grouping seems to add more opportunities to advanced learners who are usually middle-class or upper-middle-class children, depriving pupils who already suffer from socio-economic segregation, or those who are learning less fast. Kozo seems to agree that homogeneous grouping damages not only low but also high-ability students as the latter who are usually the affluent children are not given any opportunities to learn the virtues of helping others or learning about unselfishness (Scherer, 1993). It is inferred that grouping students homogeneously for instruction on the mixed ability classes is one more advantage conferred on those who already enjoy many.

Heterogeneous grouping - Cooperative learning

Heterogeneous grouping, that is gathering children of varying abilities in same groups has been proposed by many researchers as an effective strategy to promote academic development of students having diverse

background knowledge and abilities. Brimfield, Masci and Defiore (2002) believe that 'all students deserve an academically challenging curriculum' (p. 15). So, our goal is to find a way to engage all pupils of the mixed ability classroom in the lesson irrespective of their abilities. The authors point out that by creating mixed-ability groups, we send the compelling message that everybody is expected to work at the highest possible level as high and low ability students deal with the same challenges. Disadvantaged pupils are at reduced risk of being stigmatized and exposed to a 'dumped-down' curriculum in a mixed-ability setting. Teachers' expectations for all pupils are maintained at higher levels and less able students have opportunities to be assisted by more able peers.

It is assumed that heterogeneous grouping provides pupils access to more learning opportunities. Johnson and Johnson (1987) recommend assigning children of high, medium, and low abilities in the same group maximizing the heterogeneous make up of each group. Such ability diversity within the same group creates an effective learning environment (Manlove and Baker, 1995) providing learning opportunities for low-level students as well as opportunities to more advanced children to provide explanations to others revising, consolidating and using some things they have encountered before. The teachers can use cooperative tasks among high and low achievers of mixed ability groups or pairs in order to promote task engagement of all students in the mixed ability class as advanced children can provide explanations and guidance in carrying out a task.

Cooperative tasks among high and low achievers are valued by the sociocultural theory of Vygotsky (1978). Pupils of mixed ability classes differ <https://assignbuster.com/collaborative-learning-heterogeneous-versus-homogeneous-grouping/>

at their competence level and prior linguistic experiences. Vygotsky supports that children who are exposed to books and other out-of-school factors which contribute to linguistic development i. e. prior knowledge of English from private institutional instruction, are expected to have already run through a large part of their ZPD. On the other hand, pupils with poor literacy opportunities i. e. without prior knowledge of English may possess a larger Zone of Proximal Development (Van der Veer and Valsiner, 1991). So, they may benefit greatly from peer interactions which are likely to help low level students reach higher levels of performance.

In this framework, Lyle (1999) showed that both low and high achieving students value the opportunity to work together as all pupils believed that they benefited. It was concluded that peer interactions can facilitate literacy development especially of low ability students. In this vein, Guralnick (1992) points out that social competence acquired in group work affects the elaboration of all students' cognitive competencies, implying that both low and advanced learners of mixed ability classes may gain from such settings.

The role of peer learning as contributing to language development has also been emphasized by Mize, Ladd and Price (1985) Webb (1989), Jacob et al (1996) and Slavin (1996). Rogoff (1993) refers to children's social sharing of their cognition through interaction. When pupils participate in collective activities, they guide each other's efforts. According to Tudge and Winterhoff (1993) advanced children give constant feedback through conversation forcing peers to strive for reaching higher levels of performance.

Various studies have indicated a positive correlation between cooperative learning and achievement in mixed ability classes. For example, Walters (2000) asserts that cooperative learning is suitable for teachers dealing with increasingly diverse classrooms as it easily accommodates individual differences in achievement. Accordingly, Fulk and King (2001) support that 'class-wide peer tutoring' improves all students' learning. They add that serving in the role of tutor seems to be particularly beneficial for improving the self-esteem of students with low achievement while they may, for example, grade their partner's reading. Therefore, it appears that CL may satisfy the needs of a mixed ability class.

Studies conducted by Pica and Doughty (1985), Porter (1986), and Cotterall (1990) indicate that learners of different abilities produce more in mixed ability pair and group work by helping one another to overcome cognitive obstacles. This conclusion is consistent with Urzua's (1987) finding that the mixed ability children in the observational study conducted, appeared to have developed a sense of power in language through the process of working with trusted peers i. e. writing and revising.

The benefits of cooperative learning are more tangible when it comes to written work. O'Donnell et al (1985) found that involvement in cooperative dyads can improve the quality of students' performance on a written task. Weak students of mixed ability classes can use advanced learners as sources of information, commenting on and critiquing each other's drafts in both oral and written formats (Liu and Hansen, 2002). Rollinson (2005: 25) attributes this phenomenon to the possibility that 'peer audiences are more sympathetic than the more distant teacher audience'. Peer review groups
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are also favoured by Huot (2002) and Inoue (2005) and Cotterall and Cohen (2003) who showed the positive effects of scaffolding in mixed ability settings

Cooperative activities such as group investigation are likely to encourage shy and low performance students since they have the advantage of requiring the participation of all group or pair members to carry out a task, allowing each member to do something according to one's abilities.

Review of Literature

Ability grouping can be carried out between-class or within-class (Dukmak 2009). Between-class ability grouping refers to a school's practice of forming classrooms that contains students of similar ability. Within-class grouping refers to a teacher's practice of forming groups of students of similar ability within an individual class (Gamoran, 1992; Hollified, 1987)

An extensive research has been conducted on ability grouping suggesting that academically, high-achieving students achieve and learn more when they are grouped with other high-achieving students (Gentry & Owens, 2002; Grossen, 1996; Hollified, 1987; Page & Keith, 1996). In mixed-ability grouping it is difficult to provide an adequate environment for teaching to everyone. Since students differ in knowledge, skills, developmental stage, and learning rate, one lesson might be easier for some students and more difficult for the others (Slavin, 1987b). In ability grouping, high-achieving students view their own abilities more realistically and feel that they are appropriately challenged with their peers (Fiedler, Lange, and Wine-Brenner, 2002).

Mixed-ability grouping is based on cooperative learning which demonstrates positive success related to student's achievement. In this type of grouping, students work collaboratively to successfully achieve a desired educational outcome and develop a greater understanding and respect for individual differences. All forms of diversity within the learning environment are embraced (Felder & Brent, 2001; Freeman, 1993; Saleh, Lazonder, & DeJong, 2005). Moreover, in a mixed-ability, teachers respond to the individualized needs of all learners (Kulik & Kulik, 1992). The most compelling argument against ability grouping is the creation of academic elites - a practice which goes against democratic ideals (Slavin, 1987a).

Johnson and Johnson (1999) and Johnson, Johnson and Smith (1998) say that cooperative learning has five basic elements. The elements are " positive interdependence, individual accountability, promotive interaction, appropriate use of social skills, and periodic processing of how to improve the effectiveness of the group" (Johnson & Johnson 1999). When these elements are properly implemented, the research has shown that " group collaboration in the classroom can increase learning and achievement, social skills, self-esteem, and attitudes toward classmates and school" (Slavin, 1990 as cited in Webb, Nemer & Zuniga 2002). Placing students in teams or cooperative learning groups has many advantages. It helps to build a student's communication skills, can help increase tolerance and the acceptance of diversity, promotes higher level reasoning, promotes increased generation of new ideas, promotes greater transfer of information from one situation to another, increases retention, builds teamwork skills, reduces stress, and " increased willingness to attempt challenging tasks"

(Baker & Campbell, 2005; Huss, 2006; Lin, 2006; Payne & Monk-Turner, 2006; Patrick, Bangel, & Jeon 2005; Kim 2004; Vaughn, 2002; Johnson & Johnson, 1999; Johnson, Johnson & Smith, 1998; Slavin, 1996). The cooperative learning experience also [gives] students the opportunity to review and learn information that they did not understand before the cooperative learning activity (Webb, 2002).

According to Lin (2006,), research has concluded that cooperative learning is the top ranked teaching model that “ promotes greater higher-order thinking, problem solving, and achievement.” Students can remember 75-90% of materials when they learn it in cooperative learning situations (Lin, 2006). In a survey of college students after an experiment involving group work, Payne and Monk-Turner (2006) found that 90% of students favored group work and that 90% learned from their group members. Since 1924, 168 studies have been conducted that compare cooperative learning to competitive and individual learning. These studies have shown that cooperative learning yields higher academic achievement than individual and competitive learning (Johnson, Johnson & Smith, 1998). Cooperative learning groups are also said to be particularly beneficial to low academic achieving students and students of color (Huss, 2006; Vaughn, 2002).

Cooperative learning groups appear to be successful for many reasons. Students become an instrumental part of the group when they feel their efforts will contribute to the success of the group (Baker & Campbell, 2005).

Students are successful and learn in cooperative learning groups because “[they] learn by doing rather than listening” (Payne, Monk-Turner, & Smith 2006) and because they are actively using the material and information
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(Zimbardo, Butler, Wolfe, 2003). Cooperative learning also strengthens students social interactions, it gives them the desire “ to achieve, [to develop] more positive interpersonal relationships, and [have] greater psychological health than competitive or individualistic learning efforts” (Johnson, Johnson, & Holubec, 1994 as cited in Morgan, 2003,). Cooperative learning can teach students that “(a) that knowledge can be, or should be, shared with fellow students; (b) that differences in opinion can be rationally negotiated even under conditions of test pressures; and (c) that cooperative learning procedures can be enjoyable and productive” (Zimbardo et al., 2003,). These types of lessons enable students to learn how to work well with others. The interdependent relationships that develop within a group help to facilitate the group’s success. Everyone feels the goal of the group will be met if everyone achieves their individual goals (Vaughn, 2002; Morgan, 2004). According to Morgan (2004), group members should also be aware of the fact that a single group member can affect how and/or if the goal is achieved.

The cooperative learning experience is most effective when the participants work well together and they successfully achieve their goal. There are many characteristics to successful teams. Some of these characteristics include open communication, effectively listening, open-mindedness, clear roles, an established leader, clearly defined tasks, teamwork where everyone works together and contributes, there are well developed attainable goals (Payne, Monk-Turner, 2006; Baker & Campbell, 2005), and a timeline (Payne & Monk-Turner, 2006). In a classroom, there are also many things a teacher can do to help insure the success of a group activity. The teacher should provide

strong guidance (Payne & Monk-Turner, 2006; Baker & Campbell, 2005), model the desired behavior, provide immediate feedback, and reward desired behavior (Lin, 2006; Baker & Campbell, 2005). The teacher can also use checks and balances to monitor productivity, employ various problem solving strategies (Friend & Cook, 2007), lengthen the amount of time the group spends together, provide proper group behavior training, establish “ground rules” (Mitchell, Reilly, Bramwell, 2004) and allow group members rate each other (Lin, 2006). If the teacher monitors, provides rewards and allows the students to rate each other, it may reduce the effects of a slacker and keep students from getting a grade they do not deserve (Payne & Monk-Turner, 2006). Students that slack off can demotivate hard working students and give them a negative feeling about group work (Ashraf, 2004).

Many studies have been conducted that demonstrate the success of teaming. Robert Slavin has conducted extensive research on the implementation of cooperative learning models in schools. He has examined the effects schools becoming complete cooperative learning centers on their academic achievement. He has found many successful situations where lower performing schools were transformed because they converted to a cooperative learning format (Slavin, 1999 22-23). Payne and Monk Turner (2006) conducted a study that examined how students felt about teams. In this study, they assigned students to groups, gave them an assignment, and then asked them how they felt about the assignment after the group project was completed. They found that 90% of the students had a favorable experience, 90% of the students learned from their group members, and 85% of the students felt they learned teaming skills that could be

transcended into business. Baker and Campbell (2005) conducted a study in which students were placed in groups and observed that the students who worked in groups, as opposed to working individually, were more successful because they had more access to knowledge, they felt pressured to succeed to keep the group from failing, and the various personalities helped alleviate the stress of the problems. For example a member often told jokes to help lessen the tension. Additionally, members often provided positive reinforcement and motivation.

Placing students in groups to take tests is another way to use cooperative learning and group work. Morgan examined the benefits and nonbenefits of college students completing exams using cooperative learning groups. She concluded that “ The increased depth of understanding, the feelings of support, respect for other’s contributions, and the clarification of information produced more students with a greater awareness of the material and more developed social skills to be contributing members of teams” (Morgan, 2004). The understanding of successful cooperative learning group models not only affects groups in grade school; it also affects groups in jobs and college. According to Payne, Monk-Turner, and Smith (2006) “ employers want college graduates that have developed teamwork skills.” Miglietti (2002) says that group work is commonly used in the workplace and employers want to hire people with these skills. Furthermore, these skills can be learned when student