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Making Cooperative Learning Work in the College Classroom: An Application of the 'Five Pillars' of Cooperative Learning to Post-Secondary Instruction

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Abstract

Cooperative learning is viable yet generally underutilized method of instruction at the college level (Paulsen and Faust, 2008). This paper highlights the work of teacher educator Dr. Paul J. Vermette in his implementation of cooperative learning based practices in a graduate level Multicultural education course. In analyzing the 'Five Pillars' of cooperative learning as outlined by Johnson, Johnson & Smith (1991), this article will highlight Vermette's implementation of cooperative learning structures to this theoretical framework. Through narratives of Vermette's actual teaching, the authors will provide suggestions for implementing cooperative learning in the college classroom.

Keywords: Cooperative learning, teacher education, multicultural education.

The purpose of this study is to share a model of cooperative learning based practices at the college level. The authors studied the pedagogy of Dr. Paul J. Vermette, author of the book *Making Cooperative Learning Teams Work in K-12 Classrooms* (1998), throughout a four-week Multicultural Education course during summer 2007. The goal was to examine how he uses cooperative learning structures as his students' primary means of knowledge acquisition. Through key learning experiences in this Multicultural Education course, the authors of this paper will examine how Vermette's model of cooperative learning aligns with a pre-existing model, the Johnson, Johnson and Smith 'Five Pillars' (1991) for cooperative learning in the college setting.

Cooperative Learning in Higher Education

"It could well be that faculty members of the twenty-first century college or university will find it necessary to set aside their roles as teachers and instead become designers of learning experiences, processes, and environments" (Duderstadt, 1999). The role of the college professor is changing. While large lecture halls and bell curves have generally characterized higher education, according to Fink (2004) the past twenty years have seen an increase in active learning and cooperative learning based pedagogies in colleges across the country. Fink reports that when asked, most college professors state they have

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tried structured group learning in at least one of their classes, at least once throughout the semester (Fink, 2004). As the Constructivist educational paradigm continues to take hold, it is likely that the higher education will continue to make progress in alignment with this movement.

However, Paulsen and Faust (2008) note that there is still a resistance and hesitation in higher education to transform traditional college classes into cooperative learning environments. Despite the pedagogical interest, under the false notions that cooperative learning is an alternative to, rather than an enhancement of professorial lectures, many avoid integrating cooperative learning into their classes (Pausen & Faust, 2008). In fact, according to Weimer (2007) when asked about the teaching methods they most commonly employ, 76% of college professors reported that lecture was their "primary approach" to teaching. Even though many may dabble into the realm of cooperative learning as indicated by Fink (2004), it is not common practice. Due to the expert nature of higher education, much evidence suggests that many college professors still cling to the notion of expounding knowledge to their students rather than engaging them in discovering such knowledge through active learning (Ediger, 2001; Murry & Murry, 1992; Felder, 1992).

There is also a general confusion as to what the term 'cooperative learning' means. Very often, this phrase is a blanket term, applied to any sort of group work or interaction between classmates that results in a product. Educators often operate under the false assumption that putting adults in groups automatically assumes that they are being 'cooperative' and that they are 'learning.' Neither of these assertions is necessarily true (Johnson & Johnson, 1994).

According to the Cooperative Learning Center at the University of Minnesota, Cooperative Learning is a relationship among a group of students that requires five elements:

> positive interdependence
> individual accountability
> interpersonal skills
> face-to-face promotive interaction
> processing out
> (Johnson & Johnson, 1994)

These five elements form the 'five pillars' of cooperative learning which Johnson, Johnson, and Smith (1991) use as their basis for utilizing such practices in the college classroom. Based on Paulsen and Faust's assertion that there is reluctance among professors to embrace cooperative learning structures, this five pillars approach seeks to provide a complete model for implementing pedagogical change. Examining Dr. Vermette's actual implementation of this structure will help to bridge the gap between educational theory and actual college teaching.

Being that David and Roger Johnson have been at the forefront of cooperative learning theory for four decades, the five pillars model was chosen for this paper due to its solid

foundation in educational research. Johnson, Johnson and Smith (1998) have reported that between 1924 and 1997, over 168 studies have supported the notion that cooperative learning is effective for students over 18 years old. This 'five pillars' model for cooperative learning has been well studied and Johnson and Johnson have been at the forefront of much of this research. For the purposes of objectivity however, only cooperative learning research not conducted by Johnson, Johnson and Smith will be considered in the research portion of this piece.

The Effectiveness of Cooperative Learning in the College Setting

Cooperative learning is among the most well researched of all teaching strategies. Forty years of research has shown that when compared to other methods of instruction, cooperative learning is one of the most effective ways for students to maximize their own learning and the academic accomplishments of their classmates (New Horizons, 2008, Johnson & Johnson, 1994, Slavin, 1996, Williams, 2007). Highly structured cooperative learning allows students to develop their own understanding of key concepts all the while encouraging and assisting others. Thus, the major benefits of cooperative learning at the college level fall into two categories: academic benefits and social-emotional benefits.

Academic Benefits

Concentrating on academic achievement at the post-secondary level provides the unique the opportunity to examine the effects of cooperative learning on a population of students who are largely self-motivated and self-directed learners. These students have learned to work and succeed in variety of instructional setting throughout their schooling careers. Thus, the hundreds of studies showing increased academic achievement using cooperative learning in the college classroom suggest that cooperative learning promotes significant cognitive results even for the most esteemed of student populations. One recent study of nearly 500 undergraduate engineering students from six diverse institutions indicated that cooperative learning produced "statistically significant and substantially greater gains in student learning than those associated with more traditional instructional methods." Even with differences in pre-course characteristics and learning advantages, levels of understanding and retention still increased in the cooperative learning settings (Terenzini et al., 2001). For decades there have been hundreds of studies, which ultimately have come to the same basic conclusion, post-secondary students learn more, are better able to remember and then transfer their knowledge when taught with the cooperative learning model than other instructional methods (Cooper et al., 1990, Goodsell et al., 1992).

The reasons for this increase are simplistic. Firstly, in a lecture-based college class, estimates show that the teacher speaks about 80% of the time. Thus, in a class with 30 students (which is a relatively small number for a college class) each student has less than 30 seconds to speak every hour (Lie, 2008). Research has shown that students learn by doing, thinking critically about concepts and then applying their knowledge to diverse situations. In a cooperative learning setting, students must not only articulate their under-

standing to their teammates but also have the luxury of immediate feedback from their peers (New Horizons, 2008).

Social- Emotional Benefits

In 1991, the US Department of Labor conducted a nationwide survey to investigate what skills employers most seek in their new employees. The purpose of this survey was to get the business world's "take" on what schools could do to better prepare American worker for highly skilled, highly profitable jobs. While technical skills and general intelligence proved important, the skills most often cited were "communication skills, interpersonal skills and initiative" (Dowd & Liedtka, 1994). In the document from the US state department entitled "What Work Requires of Schools," among the top attributes US employers most desired were:

- Sociability- demonstrates understanding, friendliness, adaptability, empathy
- Self-Management- assesses self accurately, sets personal goals, monitors progress, and exhibits self-control
- Ability to participates as member of a team- contributes to group effort
- Ability to exercises leadership- communicates ideas to justify position, persuades and convinces others, responsibly challenges existing procedures and policies
- Ability to work with diversity- works well with men and women from diverse backgrounds

As evident from these demands, knowing content academic is not enough to make today's college graduate competitive in the workplace. No longer can students just have sound academic standing, but they must be taught and have the opportunity to practice the social and personal competencies necessary to survive in the workplace. Research indicates that compared to other forms to instruction cooperative learning helps students become better communicators and listeners, cooperative members of a team and effective leaders (Strom & Strom, 2003; Lie 2008; Goodwin, 1999). Using cooperative learning the college setting helps break the stereotype that students working together are "cheating." Instead, it enables students with the mindset that one must exercise their collaborative skills and work with others to achieve a common goal.

In addition to promoting social skills, cooperative learning also enhances personal competencies of self-reflection and accurate self-assessment. By working closely with others students, learners can evaluate their own strengths and weaknesses, utilizing the diversity of the group to accomplish their mutual goal. By considering how well the group worked together, the effectiveness of social skills used as well as the creation of goals for further growth, cooperative learning encourages students to become reflective practitioners and strive for continuous improvement (Williams, 2007).

These notions provide the rationale for the following case study highlighting the educational practices of Dr. Paul J. Vermette, a 22-year Teacher Educator. Cooperative Learning was the primary mode of instruction used throughout his four-week graduate level Multicultural education course. In comparing narratives of his actual teaching to John-

son, Johnson and Smith's (1991) five pillars of cooperative learning, Vermette's teaching will serve as a model for cooperative learning theory in practice.

A Description of the Site and Participants

The participants discussed in this study were 33 pre-service teachers, enrolled in a 39 credit-hour cohort that would lead to initial certification in Adolescence and Middle Childhood Education. These Niagara University students, ranging in age from 21 to 55 years of age were of American and Canadian citizenship. The course, Multicultural Education, was the first course of their program that took place in May 2007.

Their professor, Dr. Paul Vermette has been a professional educator since 1971 and is now in his 22nd year as a Teacher Educator at Niagara University. He has authored (or co-authored) dozens of texts including *Applying Standards Based Constructivism* (2004), *Constructivist Strategies* (2001) and *Making Cooperative Learning Work: Student Teams in K-12 Classrooms* (1998). He has written and presented widely on topics of Constructivist based instruction, teacher change, diversity and cooperative learning on both sides of the US-Canadian border. At Niagara University, Vermette teaches instructional methods, curriculum planning, courses in teaching for diversity (Niagara University, 2006).

Johnson, Johnson and Smith's Five Pillars

Johnson, Johnson, and Smith (1991) define cooperative learning as "the instructional use of small groups so that students work together to maximize their own and each other's learning." Based on their research, they have proposed five essential elements that are necessary to construct effective cooperative learning experiences: positive interdependence, promotive face-to-face interaction, individual accountability, social skills, and group processing. A visual representation of this concept is presented in figure 1 below.

Figure 1.

(Foundation Coalition, 2008)

As shown in the above graphic, this 'five pillars' model provides the foundation for building successful Cooperative Learning in the college classroom. They will now become the lens through which we interpret the learning experiences of Dr. Paul Vermette's Multicultural Education class.

Positive Interdependence

Positive Interdependence is the belief that the individual is dependent on the contributions, inclusion, and success of the others in the group in order to be successful. Those with a strong sense of positive interdependence believe that there is value in learning from the ideas and contributions of others and that "group members sink or swim together" (Johnson, Johnson & Smith, 1991). Infusing positive interdependence into group activities ensures that team members have a common goal and that there is an unwavering commitment to the success of group members. As they describe, "if there is no positive interdependence, there is no cooperation."

With this in mind, let us examine one instance of how Dr. Vermette fostered positive interdependence in his graduate class. All of the subsequent narratives indicated in italics are the result of the authors' field notes combined with teacher and student interviews taken over the four-week period.

> The 'Gronk' activity was the students' first learning experience. Used within the first hour of the first class, students were in random pairs and each assigned roles. One student, designated the role of 'teacher' was responsible for teaching the characteristics of a fictitious creature called the Gronk to their partner, given the role of 'illustrator.' The illustrator was to draw the Gronk with the features described by their teacher. As students busily worked with each other, Dr. Vermette meticulously "worked the room". After about five minutes, Dr. Vermette announced that time was up and called on Anthony, an illustrator, to come to the front of the room. When asked if he would like his partner to accompany him, he quickly agreed. When asked to explain the Gronk, he easily spoke for several minutes on the specific characteristics of this fictitious animal.
>
> During his debriefing, Dr. Vermette asked, "Who taught Anthony the Gronk?" When the class unanimously pointed to his partner, the 'teacher', Dr. Vermette retorted, "No, she didn't teach Anthony the Gronk – I taught Anthony the Gronk. I gave him his partner, I gave him the materials he needed and I set up the conditions for him to learn. I taught Anthony the Gronk but I used the greatest asset I have – I used her (his partner) and I used cooperative learning."

According to Johnson, Johnson and Smith (1991), developing positive interdependence is the most important, yet most challenging aspect of implementing the five pillars of cooperative learning. Since this element is solely contingent on the quality of the task assigned to each group, creating positive interdependence requires that the assigned task demand participation from all group members. Copying down lecture notes or answering simple recall questions will not force positive interdependence and therefore will not reap the benefits of cooperative learning.

This Gronk activity was an example of positive interdependence because students were dependent upon each other in regards to their product, resources and roles. The 'illustrator' could not have completed the task without his/her partner's description and the

'teacher' could not have fully understood the Gronk without utilizing the material in a meaningful way. The success of both participants was contingent on the successful completion of a single product, and neither individual had the knowledge or resources available to complete the activity alone. It was impossible for any student to assume the roles of both illustrator and teacher. Johnson, Johnson and Smith would describe these specific types of interdependence as product goal interdependence, resource interdependence and role interdependence (Johnson, Johnson and Smith, 1991).

In the Gronk vignette, it is evident that Anthony, 'the illustrator,' also felt that positive interdependence was built into this activity. When asked, he immediately wanted his partner to join him in his public debriefing, acknowledging the shared responsibility and shared ownership in his task. Requesting to have his partner come to the front of the room with him provides some evidence that Anthony felt his individual success was related to his partner's success, thereby demonstrating the power of positive interdependence. As one of the very first icebreaker activities students engaged in during this course, this activity inexplicably set the tone for successful cooperative learning activities throughout the semester.

Promotive Face to Face Interaction

As detailed earlier in this piece, there is hesitation among those in higher education to try cooperative learning (Paulsen & Faust, 2008). Novices attempting to utilize these structures will often put students in teams, give students a single task to complete and allow them to do whatever they need to do to get the job done. With no structure, students will often use the "divide and conquer" method whereby they split up the work, complete their specific parts at home, and essentially creating a collection of individualized assignments. But is this cooperative learning?

As Johnson, Johnson and Smith (1991) describe, promotive face-to-face interaction is a foundational component to cooperative learning. The result of positive interdependence, promotive face-to-face interaction occurs when students are given time in class to discuss, ask questions and support each other in the completion of their task. Students must understand that it is not only the final product that matters in cooperative learning but also the ongoing dialogue process that is a critical part of their success. Promotive interaction is an essential part of establishing cooperative learning because face-to-face interaction provides the critical verbal and non-verbal feedback needed for group success (Johnson, Johnson & Smith, 1991).

In this multicultural education course, Dr. Vermette used the cooperative learning structure of a modified jigsaw (Aronson, 2008) as a way to discuss addressing the issue of culturally relevant teaching in Multicultural classrooms. As you analyze Dr. Vermette's use of this cooperative learning structure in this lesson, try to note how the use of face-to-face interaction guarantees that structured cooperative learning is taking place.

> Prior to their in-class experience with Gloria Ladson Billings' text *The Dreamkeepers*, students individually created artifacts demonstrating their understanding

> of the teacher assigned to them from the book. On the day the project was due, students discussed the book in a format reminiscent of a jigsaw.
>
> First, homogeneous groups organized by assigned teacher met to discuss things they liked and questions they still had about the teacher they studied. Then after ten minutes, they moved to their base groups, where each briefly described what they learned, and together they created a list of 10 things they collectively want to remember about culturally relevant teaching and the teachers in the book. Since each base group contained a student "expert," all of the teachers were covered and teams were able to compare and contrast the approaches of culturally relevant educators. Finally, Dr. Vermette fostered a whole group discussion where he reviewed the contexts of the book, delve into notion of culturally relevant teaching and highlighted some of the student made artifacts.

Jigsaw is a cooperative learning technique rich in opportunities for promotive interaction (Aronson, 2008). Using this technique, students first discuss their assigned material from peers with the same role within the class. By using face-to-face interaction, students work to understand the material itself, and develop a plan of how to teach it to others. This occurred in Dr. Vermette's class when students with the same assigned teacher met to discuss and develop questions to bring back to their base groups. Second, student experts return to their base groups and this new team pieces together each of their separate components to develop the bigger concept. In Dr. Vermette's class, this occurred when students met to compare and contrast the culturally relevant teaching practices of all of the teachers. Just as with the Gronk activity, it is impossible to teach someone else a new concept without providing and receiving feedback. Due to its multiple instances of promotive interaction, this jigsaw technique has become one of the most widely used cooperative learning structures at all academic levels (Aronson, 2008).

Individual Accountability

To establish the importance of individual accountability in the college classroom is look no further than the 2006 New York Times headline "Those Low Grades in College May Haunt Your Job Search" (Koeppel, 2006). As this article explains, "In its Job Outlook 2007 survey, the National Association of Colleges and Employers found that 66 percent of employers screen candidates by G.P.A., and 58 percent of those surveyed said they would be much less likely to hire graduates with grades averaging less than a 3.0." As a result, students who are understandably concerned about grades must feel that they are individually accountable for their performance in groups in order for cooperative learning to be successful. An obvious issue of concern for students in cooperative learning setting is 'social loafing' whereby one student does all of the work while the rest of the group gets a free ride (Johnson, Johnson and Smith, 1991). This complaint however is more an indication of ill-defined and unstructured group work, not 'five pillars' based cooperative learning (Tannen et al., 2003). A model of how graduate level students were individually accountable for their work in cooperative learning settings in Dr. Vermette's class is below.

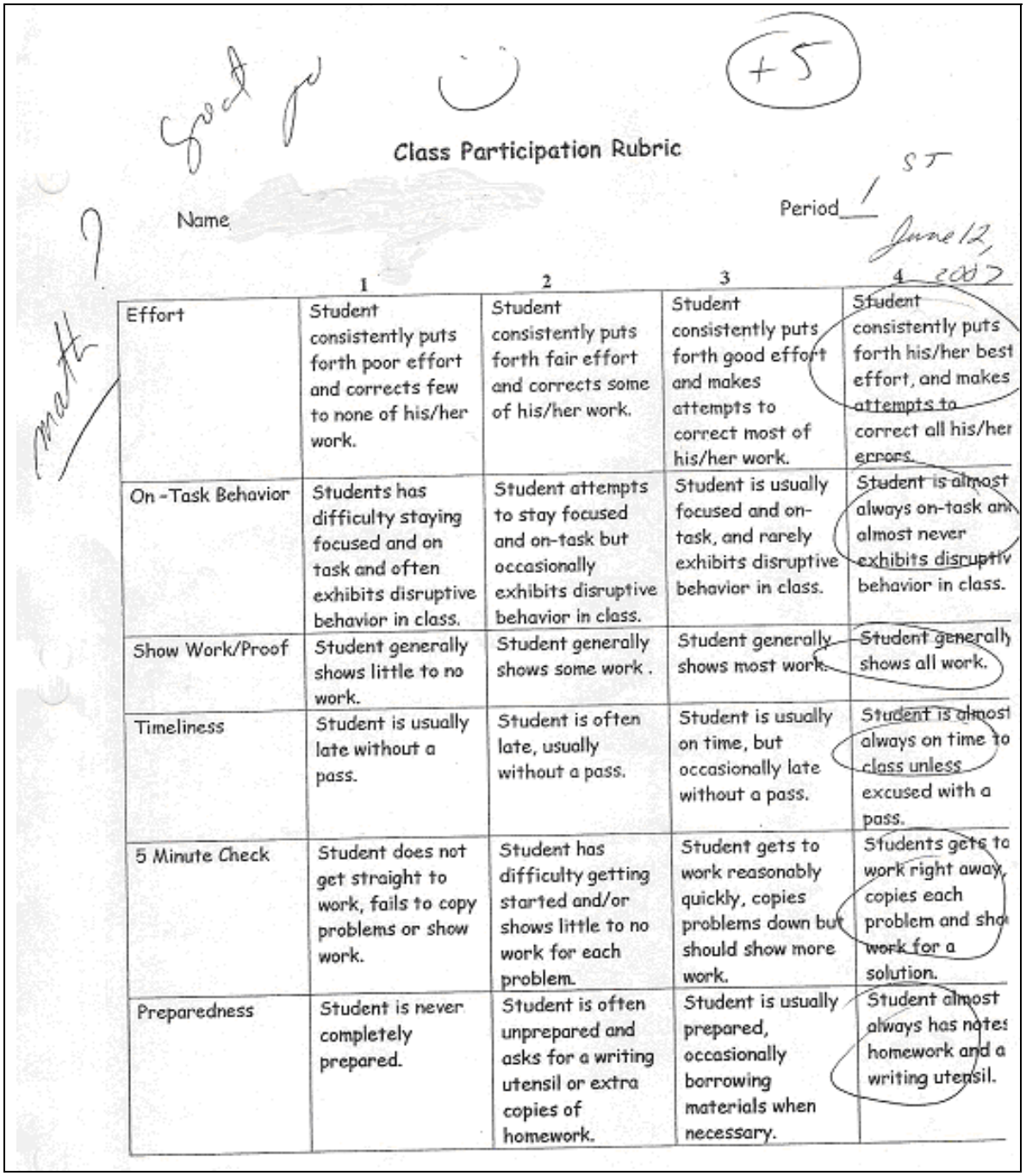
In Dr. Vermette's Multicultural Education class, grades were composed of both of product and process grades. Everything turned into the professor was marked with an individual grade. These product grades included projects, authentic assessments and daily out slip reflections and comprised the bulk of the students' overall points.
However, being that a majority of the class was spent working in cooperative learning groups, when students worked with their peers, Dr. Vermette examined their daily "process" of learning using a four point rubric. As advocated in his book, *Making Cooperative Learning Work – Student Teams in K-12 Classroom*s (1998), students were assessed individually through their daily process grade based on teacher observations. With over 30 students in the class, a student did not receive a graded rubric everyday, but Dr. Vermette very meticulously provided every student with daily oral feedback. This occurred during instruction, as well as before and after class. A completed copy of Dr. Vermette's four point rubric is shown in figure 2.

As a pillar for cooperative learning, individual accountability ensures that "students learn together, but perform alone" (Johnson, Johnson and Smith, 1991). If we acknowledge that the whole point of cooperative learning is to provide students with the resources they need to subsequently perform better on their own, than individual accountability strengthens the group dynamic as well as individual performance (Foundation Coalition, 2008). In Dr. Vermette's class, the use of the performance rubric above provided every student with the opportunity to grow in his/her own personal, social and academic development. By informing students of the potential to receive a 4 on this rubric and providing them with frequent opportunities to display and practice such competencies, Dr. Vermette created a community supportive of cooperative learning based practices.

Social Skills

Much to the dismay of educators, placing students in close proximity to each other with a task to accomplish does not ensure cooperative learning will take place (Johnson & Johnson, 1994). Often it is not a matter lack of interest or defiance, but rather students (even at the college level) do not have the social skills necessary to work effectively with others. So much emphasis in American schools is placed on individualism and competition that students need help developing the teambuilding and group maintenance skills necessary for cooperative learning to work. Just as teachers build academic skills to ensure cognitive gain, for cooperative learning to be successful, teachers need to use the same dynamic and intentional teaching of social skills (Optiz, 2008). This means the teacher must develop expectations for each specific social skill, provide opportunities for students to practice them and then provide feedback regarding their implementation. According to Johnson, Johnson & Smith (1991) of all the competencies needed for cooperative learning to be effective, post-secondary students should have instruction in leadership, decision-making, trust-building, communication, and conflict-management skills.

Figure 2.



Class Participation Rubric

Name

Period 1 ST

June 12, 2007

	1	2	3	4
Effort	Student consistently puts forth poor effort and corrects few to none of his/her work.	Student consistently puts forth fair effort and corrects some of his/her work.	Student consistently puts forth good effort and makes attempts to correct most of his/her work.	Student consistently puts forth his/her best effort, and makes attempts to correct all his/her errors.
On-Task Behavior	Students has difficulty staying focused and on task and often exhibits disruptive behavior in class.	Student attempts to stay focused and on-task but occasionally exhibits disruptive behavior in class.	Student is usually focused and on-task, and rarely exhibits disruptive behavior in class.	Student is almost always on-task and almost never exhibits disruptiv behavior in class.
Show Work/Proof	Student generally shows little to no work.	Student generally shows some work .	Student generally shows most work.	Student generally shows all work.
Timeliness	Student is usually late without a pass.	Student is often late, usually without a pass.	Student is usually on time, but occasionally late without a pass.	Student is almost always on time to class unless excused with a pass.
5 Minute Check	Student does not get straight to work, fails to copy problems or show work.	Student has difficulty getting started and/or shows little to no work for each problem.	Student gets to work reasonably quickly, copies problems down but should show more work.	Students gets to work right away, copies each problem and sho work for a solution.
Preparedness	Student is never completely prepared.	Student is often unprepared and asks for a writing utensil or extra copies of homework.	Student is usually prepared, occasionally borrowing materials when necessary.	Student almost always has notes homework and a writing utensil.

As you read how Dr. Vermette introduced these essential social skills, please note how he (1) set up the specific guidelines for working in cooperative learning groups (2) gave students the opportunity to practice their social skills with a relatively low-risk task (3) provided feedback and suggestions for continuous improvement.

> Before assigning any cooperative learning tasks, Dr. Vermette made it a priority to introduce and draw attention to the interpersonal and small group skills needed to ensure group success. Since these were future teachers, he asked them to think of what they would expect from their students, posing the question "How would you expect your students to act in cooperative learning groups?" Dr. Vermette asked the learners to work individually at first, recording three different norms they would expect from their middle or high school students. By utilizing a think-pair-share model of debriefing, Dr. Vermette facilitated the construction of a comprehensive list of personal and social competencies necessary for cooperative learning groups. Student generated social skills included:
>
> | | |
> |---|---|
> | Treat each other with respect | Equally contribute |
> | Value other opinions | Disagree agreeably |
> | Listen to other group members | Talk only to your own group |
> | Stay focused | Encourage others to talk |
>
> With this list created, Dr. Vermette announced that he expected to see the same social skills exhibited by his students throughout the semester. In their teams, they were to better familiarize themselves with these skills by adapting the class-generated list into a set of class expectations that would use for the remainder of the course. As the students worked in teams, Dr. Vermette "worked the room" listening, making informal notes and using the class participation rubric mentioned above. He then discussed the social skills he noticed with individual students at the end of the class.

Social skills, like all other skills cannot be developed or improved without careful planning and intentional practice (Optiz, 2008). As Dr. Vermette did in his classroom, before any successful implementation of cooperative learning can occur, students need to know not only what competencies they must possess, but also their current level of aptitude and suggestions for improvement. It is important to note that throughout the semester these students had numerous student-teacher conferences with their professor, as well as ample formal opportunities to reflect on their successes and set goals for continuous improvement. In this way, these students had the opportunity to not only experience the cognitive benefits of cooperative learning, but the affective gains as well.

Group Processing

Providing students the opportunity to reflect upon the quality of their group work will ultimately determine the success of cooperative learning teams (Johnson, Johnson and Smith, 1991). Providing time for individual and group reflection will increase the quality of cooperative learning teams by strengthening intrapersonal and interpersonal compe-

tencies. Allowing students to provide constructive feedback to their peers fosters metacognitive awareness while strengthening group synergy and allowing for continuous improvement (Johnson, Johnson and Smith, 1991). In Dr. Vermette's class, formal group processing took the form of "outslip" questions, as explained below.

> One of the required assignments for this class was the completion of ten "outslip" reflections. These outslips were comprised of a series of questions relating to group progress and the overall progress of the course. These outslips were completed individually, outside of class, and then read and commented on by the professor. Dr. Vermette would often use the issues raised in these outslips as a means of fostering group discussion. Sometimes he also distributed examples of individuals' outslips to the class to address a class concern. At least once a week Dr. Vermette gave his groups time to chat in their base groups about the individual issues raised in their outslips. Two examples of completed student outslips have been included as figures 3 and 4.

Cognitive theorist James Bruner (1960) stated, "Reflection is central to all learning." Cooperative Learning theorists Johnson, Johnson and Smith (1991) more specifically stated that reflection is central to all cooperative learning. One of the keys to the group processing technique utilized by Dr. Vermette was that it provided a cohesive structure students could use to practice their metacognitive and intrapersonal skills. These outslips promoted constructive feedback, while putting students at the center of their learning process by putting them in control of their class and group processes. By communicating clear group expectations, students were able to maximize their own and each others leaning, while strengthening the quality of their cooperative learning environment.

Cooperative learning is a very well-researched yet underutilized pedagogical strategy in the college classroom (Weimer, 2007). Regardless of subject matter, the age of the students or academic ability, if utilized correctly under Johnson, Johnson & Smith's (1991) five pillars, cooperative learning will only enhance student performance and success. The learning activities and classroom structures set forth by Dr. Paul Vermette in his Multicultural course epitomized Johnson, Johnson and Smith's notion of successful cooperative learning at the college level. Through this course, not only did his students learn about cooperative learning and multicultural education, but also they took an active role as they participated in it and flourished under his guidance. Through examination of key learning experiences that occurred in Dr. Vermette's class, one can thereby apply these same notions into other college classroom settings, acquiring the similar affective benefits and cognitive gains for all students.

Figure 3.

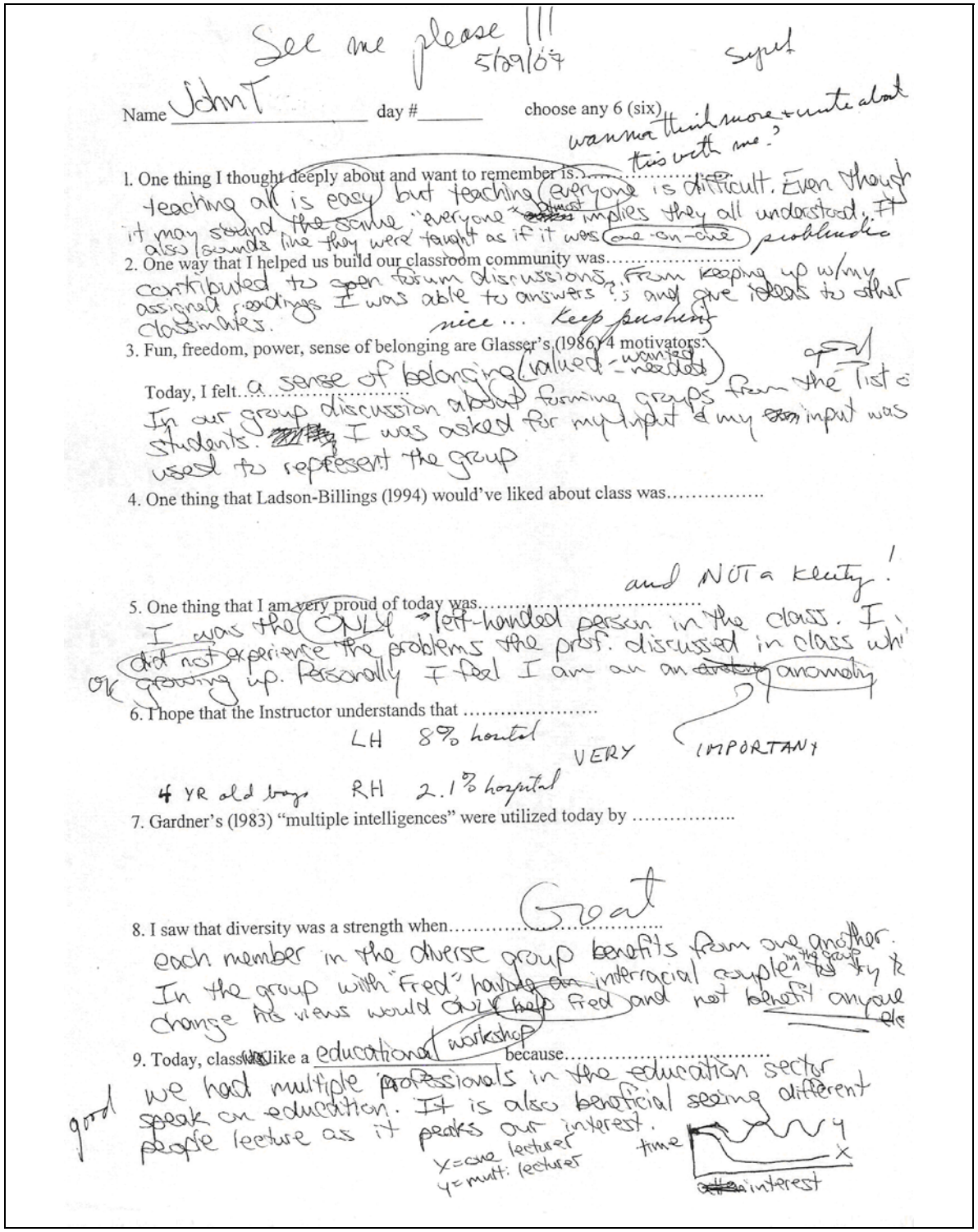
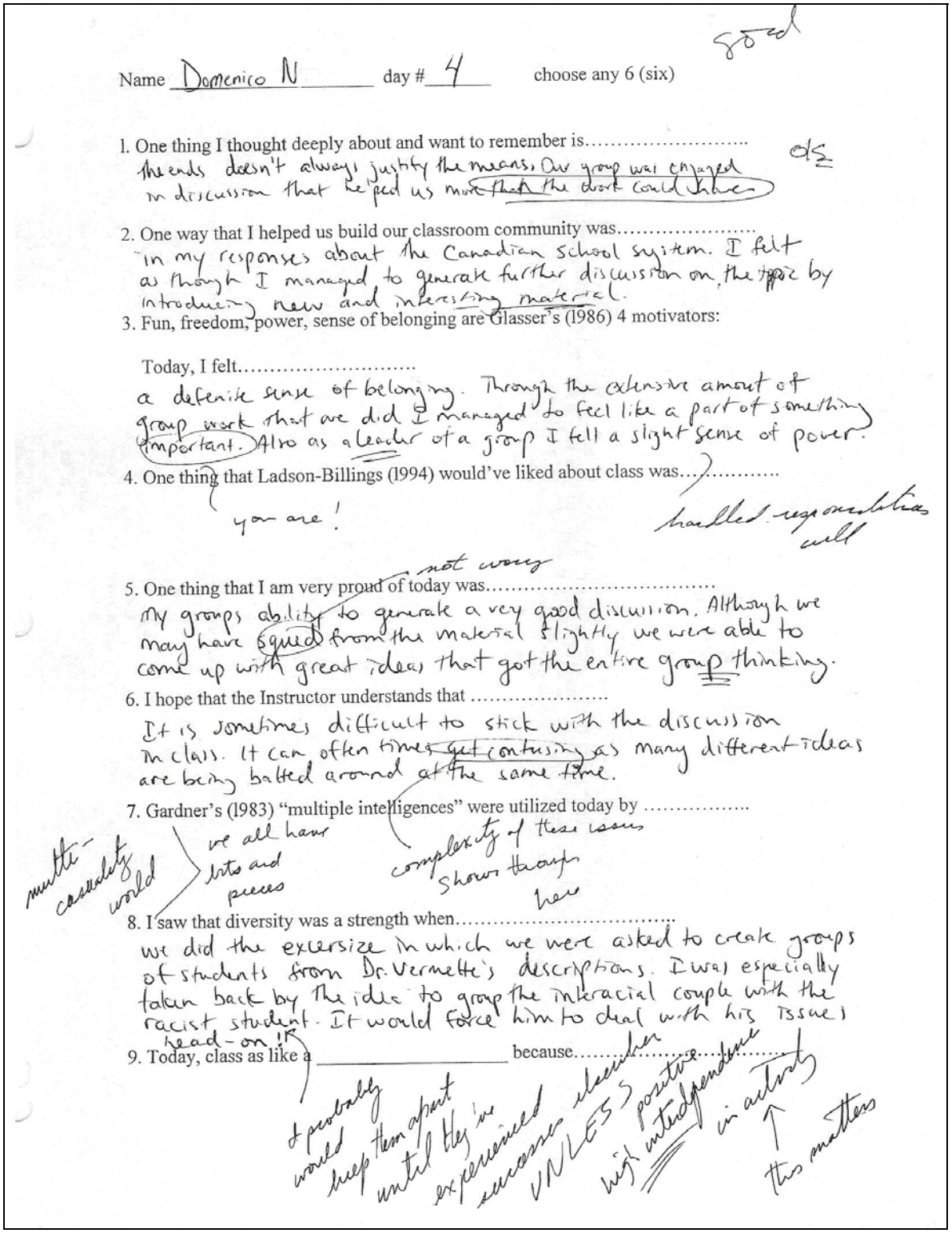


Figure 4.



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