

THE ACADEMIC WRITING OF TEACHER CANDIDATES

Connecting speaking and writing

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Abstract. This paper presents a small-scale study that examines the relationship between spoken and written discourse among master's level teacher candidates at an urban American university. It analyzes the writing of teacher candidates before and after the introduction of a student-centered, group interaction methodology, the Nominal Group Technique. Some of the specific areas assessed are the relationship between what students said in their groups and what they wrote in essays, interaction dynamics among teacher candidates in groups, observer perceptions of group behaviors, and teacher candidates' perceptions of writing performance before and after the intervention. The study also assesses teacher candidates' essays (N=9) and compares them to the essays of a control group (N=8). A significant increase in scores is noted from pretest to posttest after the treatment. Reaction to the class experience was largely positive. Pedagogic implications arising from findings are considered together with some tentative pointers toward future research.

Keywords: academic written discourse, college composition and rhetoric, discourse community, group interaction, peer mentoring, social constructivist theory, spoken discourse, student-centered learning, writing, writing proficiency, written discourse.

Dutch. Samenvatting. [Translation Tanja Janssen]

In deze bijdrage wordt een kleinschalig onderzoek gepresenteerd naar de relatie tussen gesproken en geschreven taal van leraren-in-opleiding aan een Amerikaanse stadsuniversiteit. De geschreven teksten van de leraren-in-opleiding werden geanalyseerd voor en na de invoering van een leerlinggerichte, op groepsinteractie gerichte didactiek, de "Nominal Group Technique". De aandacht richtte zich onder andere op de relatie tussen wat studenten zeiden in hun groepen en wat zij in hun essays schreven, de interactieve dynamiek tussen studenten in groepen, het geobserveerde groepsgedrag, en hoe studenten hun schrijfprestaties zagen voor en na de interventie. In het onderzoek zijn ook de essays van de studenten (N = 9) beoordeeld en vergeleken met de essays van een controlegroep (N = 8). Er werd een significante groei in de scores gevonden tussen de voortoets en de natoets afgenomen na de interventie. De reacties op

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de ervaringen in de klas waren overwegend positief. Implicaties voor het onderwijs worden besproken evenals enkele richtingwijzers voor toekomstig onderzoek.

French. Résumé [Translation Paurence Pasa]

Cet article présente une micro-analyse du rapport entre le discours parlé et les productions écrites de futurs enseignants, étudiants en Master d'une université urbaine américaine. L'étude examine les productions écrites des candidats au professorat avant et après l'introduction d'un environnement d'apprentissage centré sur l'apprenant et des interactions de groupe, selon la « technique du groupe nominal ». Parmi les aspects évalués de façon spécifique, on examine le rapport entre ce que les étudiants ont dit dans leur groupe et ce qu'ils ont écrit dans leur dissertation, la dynamique des interactions entre les futurs enseignants dans les groupes, les perceptions des observateurs relativement aux comportements au sein du groupe, et les conceptions des futurs enseignants des performances en écriture avant et après l'intervention. L'étude évalue également les productions écrites des futurs enseignants (N=9) et les compare aux dissertations produites dans le groupe contrôle (N=8). Une augmentation significative de la performance s'observe entre le pré-test et le post-test consécutivement à l'intervention. D'un point de vue expérientiel, les réactions de la classe ont été largement positives. Des implications pédagogiques liées aux résultats sont considérées ainsi que quelques indicateurs expérimentaux en vue d'une recherche ultérieure.

Mots-clés : production écrite académique, dissertation universitaire et rhétorique, communauté de discours, interaction de groupe, tutelle entre pairs, théorie socioconstructiviste, discours parlé, environnement d'apprentissage centré sur l'apprenant, écriture, compétence rédactionnelle, production écrite.

German. Zusammenfassung. [Translation Irene Pieper]

Akademisches Schreiben bei Studierenden des Lehramts

Der Beitrag stellt eine Fallstudie vor, die das Verhältnis zwischen mündlichem und schriftlichem Diskurs unter angehenden LehrerInnen im Masterstudium einer städtischen amerikanischen Universität untersucht. Die Studie untersucht das Schreiben der Studierenden vor und nach der Einführung einer lernerzentrierten Gruppen-Interaktions-Methodik, der „Nominal Group Technique“. Die Untersuchung betrachtet unter anderem das Verhältnis zwischen dem, was Studierende in ihren Gruppen sagten, und dem, was sie in ihren Essays schrieben; sie berücksichtigt die Dynamik der Interaktion in den Gruppen, Wahrnehmungen von Beobachtern in den Gruppen und die Selbstwahrnehmung der zukünftigen LehrerInnen zu ihrem Schreiben vor und nach der Intervention. Die Untersuchung analysiert auch die Essays (N=9) und vergleicht sie mit den Essays einer Kontrollgruppe (N=8). Ein beachtliches Anwachsen der Scores kann beobachtet werden vom Prätest zum Posttest nach der Intervention. Die Reaktionen auf die Einführung der Methode waren im wesentlichen positiv.

Es werden auch pädagogische Implikationen der Ergebnisse erläutert sowie Felder künftiger Forschung umrissen.

Portuguese. Resumo: [Translation Paulo Feytor Pinto].

Este texto apresenta um pequeno estudo em que é examinada a relação entre discurso oral e escrito em alunos de mestrado de uma universidade urbana americana, candidatos à docência. Nele é analisada a escrita dos candidatos a professor antes e depois da introdução de uma metodologia de interação grupal centrada no aluno, a Técnica de Grupo Nominal. Algumas das áreas específicas avaliadas são a relação entre aquilo que os estudantes dizem no seu grupo e aquilo que escrevem nos seus textos, as dinâmicas de interação dos candidatos em grupo, as percepções do comportamento do grupo pelo observador e as percepções dos candidatos acerca do desempenho na escrita, antes e depois da intervenção. O estudo também analisa textos de candidatos (N=9) e compara-os com os textos de um grupo de controlo (N=8). Regista-se um aumento significativo na pontuação antes e depois da intervenção, e a reacção à experiência foi muito positiva. As implicações pedagógicas suscitadas pelos resultados são consideradas em conjunto com pistas para eventual investigação futura.

Palavras-chave: discurso escrito académico, composição e retórica universitária, comunidade discursiva, interação grupal, apoio entre pares, teoria social construtivista, discurso falado, aprendizagem centrada no estudante, escrita, competência de produção escrita, discurso escrito.

Polish. Streszczenie [translation Elżbieta Awramiuk]

Niniejszy artykuł prezentuje zakrojone na niewielką skalę badania, które kontrolowały relację między mówionym i pisanym dyskursem kandydatów na nauczycieli na poziomie magisterskim na miejskim uniwersytecie amerykańskim. Analizujemy w nim teksty pisane kandydatów na nauczycieli przed i po

wprowadzeniu metodologii skoncentrowanej na studencie grupowej interakcji (Technika Grup Nominalnych). Niektóre z poszczególnych ocenianych obszarów to relacja między tym, co studenci powiedzieli w swej grupie i co napisali w esejach, dynamika interakcji między kandydatami na nauczycieli w grupach, spostrzeżenia obserwatora zachowań grupowych, wyobrażenia samych kandydatów na nauczycieli na temat pisanych wykonań przed i po interwencji. W badaniach oceniano także eseje kandydatów na nauczycieli (N=9) i porównywano je z esejami grupy kontrolnej (N=8). Znaczący wzrost punktów między pierwszym i ostatnim testem zaobserwowano po interwencji. Reakcja na klasowe doświadczenie była głównie pozytywna. Rozważamy pedagogiczne implikacje wynikające z uzyskanych wyników oraz niektóre wstępne wskazówki dla przyszłych badań.

Słowa-klucze: pisany akademicki dyskurs, studenckie wypracowania a retoryka, wspólnota dyskursu, interakcje grupowe, wzajemne uczenie się, konstruktywistyczna teoria społeczna, dyskurs mówiony, uczenie się skoncentrowane na uczniu, pisanie, perfekcja w pisaniu, dyskurs pisany

1. INTRODUCTION

In the United States, teacher candidates are required, in most states, to pass a state teacher assessment test in order to gain certification. The majority of these standardized tests require an on-demand essay. Many teachers struggle to pass this test. Recent federal legislation has brought the situation of uncertified teachers to the forefront as schools struggle to conform with laws that require teachers to pass a state certification exam that has a mandatory essay component.

The academic essay has long been written in isolation and on-demand, as is the case of the essay required by the state certification exams. This small-scale study examines a student-centered discussion technique, the Nominal Group Technique, as a prelude to writing the academic essay in teacher candidates. The research on student composition supports a dialogic approach to writing instruction. This study is an attempt to gain insight into this wide-scale problem of teacher candidates dealing with their academic writing.

1.1 National Teacher Shortage in the United States and State Teacher Assessments

The No Child Left Behind Act (United States Department of Education, 2002), the federal education agenda legislated by the Bush administration, mandates that a qualified, certified teacher be placed in each public classroom in the United States by the year 2005. This deadline was extended in many states in 2006 and has not been met at this time. 'Not a single state is expected to meet the June 30 deadline to put a highly qualified teacher in every classroom' (DeNardo, 2006: 1B).

The United States Department of Education has thrown into question the qualifications of some 13,000 teachers in Connecticut alone and made it that much more difficult for teachers to be certified (Frahm, 2006). Some states, such as Illinois with only 76 percent of their teachers certified, have eliminated mandatory exams for teachers moving from state to state to ease the problem (Associated Press, 2004). According to a public interest group, The Education Trust, 'The national picture is pretty bleak, in that a number of states have responded by lowering the bar, so that you don't really have to do very much to meet the highly qualified standard' (Jordan, 2005). In 2002, a public interest group sued the California State Commission on Teacher Credentialing for improperly labeling unprepared teachers as highly qualified for among other issues, not passing their state teacher assessments. (Bluth,

2005). They won the lawsuit and some 2000 teachers in California lost their credentials (Egelko, 2005).

'Criticism of colleges of education grew last year after statistics were released showing more than one-fourth of the students at 11 state teachers education programs had failed to pass the certification tests...' (Salzer, 2001: 6C). In specialty areas, such as special education, which is a separate certification in most states, the state of Georgia offered special education teachers a stipend to take preparation classes for the Praxis state teacher certification tests to ease the shortage in this area (Larrabee, 2005).

Campanile (2001) reports in a New York newspaper, "Of 118 uncertified teachers who took subsidized prep courses at City College [of the City University of New York] last year, 70 failed one or both of the exams required to get their state teaching licenses." The report of the National Commission on Teaching and America's Future (2003) states that the supply of new teachers was insufficient to meet these guidelines and the shortage has increased.

The literature points to the fact that teacher candidates are ill-prepared in traditional college programs to write professionally. A survey of the teacher education field (Pressley & McCormick, 1995) finds that 80% of school teachers had taken no formal work in writing beyond freshman composition. Knudson (1988) reports that, according to the National Center for Educational Statistics, remedial courses exist on college campuses because students lack the writing skills necessary to work at the level required. Some 75% of higher education institutions that enroll freshman, many of whom are teacher candidates, offer remedial courses.

The National Commission on Teaching and America's Future (2003) states that the best predictor of teacher effectiveness is the ability to communicate well. Many teacher candidates are having difficulty passing state assessment, including the written portion. Universities are under pressure to produce graduates who can pass their state assessments in education. Despite a plethora of review courses, many students who have earned education degrees are failing state teacher assessments, especially the essay component. In New York, the state teacher assessments, the Liberal Arts and Sciences Test (LAST) and the Assessment of Teaching Skills (ATS-W) have a mandatory written essay about the field of education. The PRAXIS, the state teacher exam subscribed to by more states than any other, has an essay component that must be passed to earn a passing grade.

1.2 The Essay

The essay is as old as the American education system itself. Canby and Opdycke (1914) identifies four forms of academic writing, including the exposition, the argument, narration and description. The subject of this study is the argument essay, which is the form of the academic essay required by most students for standardized exams. It is defined here as 'the attempt to persuade another mind of the truth of a given proposition' (p. 189).

The essay has long been an established medium in American academe. Hall (1995) defines a good essay as marked by a sense of contemplative concern, a pen-

sive musing articulated with a quiet intensity, a calm and orderly syntax, carrying forth messages of some depth or humor, made all the more effective by matter-of-factness and subtlety. Harrington and Adler-Kassner (2001) state the essay has 'fixed' features, such as the thesis sentence, introduction, and conclusion. Mirtz (2001) calls the essay 'a literary form, as transforming genre, or schooled knowledge' (p. 188). Peters (2001) states the essay will either 'prove or disprove students' eligibility to participate in academic life' (p. 55).

However the essay is defined, the research trend is to move it out of isolation in to the dialogic, interactive classroom space. This study attempts to do this with a structured dialogic technique, the Nominal Group Technique. Brilliant (2005) suggests that an understanding of the underlying emotional and interpersonal aspects of academic writing can lead to more effective strategies for instructors.

Harrington and Adler-Kassner (2001) propose that the role of narration is an important force in the consideration of the essay's form. Dong (2000) argues that non-native English speakers coming from cultural and educational backgrounds have differences in thinking and writing than the American academic community. Many teacher candidates in the United States have a different first language than English. Dong (2000) did a study of student essay writing and describes the standardized essay that students must take as graded holistically, based on the development of an idea, organization, supporting details, coherence, grammar and mechanics. The instrument used to assess student essays in this study is based on a similar holistic model.

The teaching of academic writing has moved away from the more formal teaching of grammar to a more holistic approach in recent years. Richards, et al. (2006), in a study of teaching grammar to improve student writing proficiency, found there is little evidence to indicate the teaching of formal grammar is effective. Many linguists have switched their attention from linguistic competence to linguistic performance (Meyers, 1980). Kutz, Cornog and Paster (2004) claim that students draw on a repertoire of linguistic resources when engaging in discourse that help them with structure. Ochse (1999) insists that the writer must be brought into the conversation to write effectively.

1.3 The Relationship Between Spoken and Written Discourse

Academic writing has been done traditionally in isolation. The on-demand, academic essay required in the state teacher assessments is no exception. The methodologies used in this study sought to bridge the gap between the spoken and written word. Classical theorists point to the concept that social interaction is a pivotal component of literacy discourse. Probably no other theorist, classic or modern, has influenced the pedagogy of writing as much as Vygotsky. Vygotsky (Steward, 1995) viewed language development, particularly in written form, as socially constructed. Vygotsky (1994) could not even conceptualize writing as a series of structures and grammatical relationships, but saw it as a coherent, meaningful whole. He asserted that because words were media of cultural categorization, they were meaningless in isolation (Vygotsky, 1962).

The zone of proximal development, including the role of apprentice in learning, is central to Vygotsky's social constructivist theory. Sperling and Freedman (2001) state:

Vygotsky's interest in the 'zone of proximal development' has perhaps more than any other single influence over the past decade or so, attracted writing researchers to study specific interactive contexts of writing in classrooms (p. 374).

Bakhtin (1986) acknowledged the centrality of social interaction in literacy learning in his concept of 'voice'. His voice always expressed a point of view whether in spoken or written discourse. The spirit of voice is present in the interactive groups in the present study. Elbow (1995) argues that speech is indelible because it is irrevocable once spoken. He suggests that teachers capitalize on the oral skills students possess and help students apply those skills to writing with immediacy and efficacy.

1.4 Discourse Community and the Relationship to Written Discourse

Discourse and the discourse community the writer is involved with are central to the writing process. The present study has much support from theorists for engaging the discourse community in the culture of the classroom and for transforming the shared knowledge to written text. The theory of connecting student experiences to the knowledge being transmitted goes as far back in the literature as the early twentieth century (Dewey, 1915). He believed in allowing students to voice personal experiences and connect their experiences in the larger social context. The Nominal Group Technique, the applied discussion methodology used in this study, is an attempt to create a 'Deweyan' community. Peer tutoring, which is the basis of the methodology of this study, is 'a way to involve them [students] in each other's intellectual, academic and social development' (Bruffee, 1993: 294). Flower (1993) finds collaboration an essential component in academic writing.

The definition of discourse community was also examined. Gee (1997) defines Discourse as:

a way of 'being together in the world' for humans, their ways of thinking and feeling (etc.) and for non-human beings, as well, such that coordinations of elements and the elements themselves, take on recognizable identifies. 'Discourse' names the pattern of coordinations, their recognizability, as well as that of their elements (p. xv).

Kutz (2004) asserts that in an academic discourse community means should be negotiated by participants. The traditional approach to the school-based essay is often writing in isolation, therefore disconnected from the discourse that both Gee and Kutz advocate. Kutz (1997) explicitly states how she thinks the school-based essay should be constructed in social interaction:

Writing for academic purposes at more advanced levels can be an...authentic act of communication where the audience is not just the teacher but a peer group of interested learners and the purpose of the writing is to present propositional/referential content and create new shared knowledge in a way that will involve listeners, but not just a product prepared for the teacher's evaluation of the students' learning (p. 250).

The present study attempts to create that shared knowledge by having students connect in discussion prior to writing. The present study is student-centered, with peers

doing the mentoring rather than having explicit instruction by the instructor during the intervention.

1.5 The Nominal Group Technique

The Nominal Group Technique (NGT) was chosen for the study as an advantageous group discussion technique that would serve students as a social construction prior to writing. The NGT was developed initially as a problem solving technique (Van de Ven and Delbecq, 1974). There are a variety of adaptations, but the technique was devised as a six-stage process: formulating the nominal group technique question (in this study, the essay prompt), generation of ideas, round-robin listing of ideas, discussion of ideas, voting on individual ideas and tabulating the voting. In this study, the six-stage process was used.

The research points to this methodology as advantageous on several levels. Group dynamics can be thwarted by personalities and behaviors of participants. The leadership of the NGT is different from other models in that the leader guides a round-robin discussion of ideas in which all members contribute, without domination (Beal et al, 1962). The NGT is also considered to be a good technique for the group process of a task, e.g. constructing the important points of an essay. Cornesky (1995) described the NGT as a continuous quality improvement tool that develops new classroom techniques. Huber and Delbecq (1972) found two positive features of the NGT, 'First the judgments of individual group members were made independently of other group members, and second, the judgments themselves were expressed on some sort of rating scale' (p. 162). The six-step NGT process as a problem solving technique fills the requirement of a group discussion technique that could potentially improve the writing proficiency of teacher candidates. The literature supports the Nominal Group Technique as a strong, structured group discussion technique. This methodology becomes the intervention for the study.

2. SETTING, PROCEDURES, METHODOLOGY

In my own work as a college professor of teacher candidates, I noted a lack of proficiency and reluctance by students toward academic writing. Seeking to assess teacher candidates' writing process, examine their reluctance toward academic writing, and suggest a possible intervention that might facilitate the process, I chose a small-scale qualitative study design. In keeping with the case study tradition, I utilized several methods of data collection and pursued data within the multiple contexts that impinged on the academic writing of teacher candidates in the two classes in the study.

My analysis of data occurred concurrently with its collection throughout the study. I had three other observers besides myself taking extensive notes during the classroom intervention. I also relied on student notes, chart tablet entries, and the students' actual discussions. A pretest and posttest survey of participants provided information on teacher candidates' attitudes toward writing and the intervention. Conversations with students were also noted. A pretest and posttest essay was done

in both the treatment and control groups. This essay was graded by independent raters by a standardized instrument rubric.

I used methods of constant comparison (Merriam, 1998; Creswell, 2003) to code field notes, student notes, full-class chart tablet notations, and observer comments. At the end of the study, I reread my entire corpus of notes and added to and refined my earlier codes.

2.1 Preliminary Feasibility Study

During the fall semester preceding the study, a preliminary feasibility study was conducted with a similar population of master's level teacher candidates at the same university. The class chosen for the feasibility study was a graduate-level education class in reading and writing across content areas that were part of the curriculum program from grades 7-12, designed to encourage professionals from other fields to become teachers. The feasibility study did show that the intervention produced improved essay scores and I proceeded the following summer with the study.

2.2 The Sample

The setting of the study was a private university in the Northeastern United States in the heart of a major city. The university has undergraduate, master's level and doctoral level programs in education. Participants were nine graduate education majors who were studying to become teachers on the master's level and enrolled in a reflective seminar. The control was comprised of eight teacher candidates in the same initial teacher education program who were enrolled in a children's literature course. Both groups were in the first semester of the program. Both groups were studying to become teachers of grades 1 to 6.

Prior to the study, I met with the professor about course content and the composition of the class to establish the appropriateness of the population for the study. The informal meeting included a discussion of course curriculum, the educator's philosophy, and the role of writing in the course. All of the students had an entrance essay successfully screened upon entering the program. The Pretest and Posttest Surveys were piloted to graduate education students at another university in the region, as were the Observer Checklists that would be used by the observers to college instructors.

2.3 The Procedure for the Treatment Group

I met with the treatment class and administered the Pretest Survey and consent forms to 11 students who volunteered to participate. The survey was geared toward positive and negative feeling about writing, attitudes about writing, and whether there was a need to improve writing skills. I also explained the Nominal Group Technique and distributed a reading on the topic (Korhonen, 1998). I then administered the Pretest Essay. The prompt (College Board, 2002), which needed to be answered in twenty minutes, stated: Nothing requires more discipline than freedom.

Assignment: In an essay, discuss your view of the statement above. Support your view with an example or examples from literature, the arts, history, politics, science and technology, current events, or your experience of observation. Two teacher candidates from the Treatment Group volunteered as leaders and I trained them according to leadership procedure for the Nominal Group Technique. The Control Group followed the same procedure for the Pretest Essay, but did not do a survey or receive instruction or readings on the Nominal Group Technique.

The following week, I gave the same prompt as the previous week and students wrote concepts down independently on notepaper while I took notes on the class. I randomly assigned students to two groups of four (T-1) and five (T-2). Two students from the pretest session did not participate. I assigned each leader to one of two groups – T-1 and T-2. Students were then asked to disclose their concepts in a round-robin format. Leaders guided the discussion, listing the concepts on a chart tablet with markers in full view. Following a training in the Nominal Group Technique, four observers, including myself, were assigned to one group for a pair. Each kept notes of the groups procedures.

When the open discussion concluded, each member prioritized his/her concepts from 1 to 5, with 1 being the most important. Group members then cast their votes for the top five ideas.

At the conclusion of the nominal voting on concepts, participants returned to their seats and were given twenty minutes to write about the same prompt they had used prior to the intervention for 20 minutes. After finishing the Posttest Essays, participants filled out the Posttest Surveys. The Posttest Surveys asked open-ended questions about their attitudes toward writing, as well as toward the intervention. The Control Group did not do Pretest and Posttest Surveys.

2.4 The Procedure for the Control Group

The Control Group population was a similar group of teacher candidates in the same cohort. They were asked to volunteer for the study and were offered a stipend to come in for the study following class on two consecutive days. I gave the same Pretest and Posttest Essay to the Control Group as the Treatment Group, but the major difference in procedures was that the Control Group did not receive the instructional strategy of the Nominal Group Technique. Independent raters rated the essays according to the same standardized rubric as the treatment group (College Board, 2002).

2.5 The Procedure for Pretest and Posttest Surveys

Participant reactions were elicited in this study in Pretest and Posttest Surveys. The Pretest Surveys asked about student' attitudes toward writing. The Posttest Survey asked students' attitudes toward writing and the intervention. With the surveys, I hoped to gain insight into attitudes of my students about their academic writing.

The pretest and posttest surveys were analyzed and compared with an adaptation of the Monitoring-Type Evaluation (Weston, et al., 2001). This method was mod-

eled because of its success in coding interview data. A coding schema was developed as a synthesis of the analysis, rather than a prepared entity to more closely fit the direction of the present study.

2.6 Observer Procedures During the Treatment Group

During the intervention, trained observers took notes on group behaviors. I trained three observers in the guidelines of the Nominal Group Technique and asked them to observe the group behaviors during the interventions. I assigned two observers to one group and one observer to the second. I observed the second group to have two observers cover each group. I provided a checklist with the procedures outlines and room for examples, comments and exceptions. The checklist was designed around the original 6-stage process developed by the originators of the technique (Van de Ven & Delbecq, 1974). The first two stages of the procedure, formulating the question and generating ideas were done independently before the groups were formed. Therefore the checklists covered stages three to six, including the round-robin listing of characteristics; individual members' disclosure of ideas, leaders charting of ideas, members participating in open discussion, members rank ordering of ideas and the leaders tabulating concepts on a scale of one to five.

3. RESULTS

The analysis of data produced two major analytic categories: attitudes of teacher candidates toward academic writing and improvement of writing proficiency as a result of the intervention. These categories gave focus to my data collection as I sought to confirm, disconfirm, and add conceptual density to them. The following results present findings that develop the two major analytic categories and their meaning.

3.1 Feasibility Study Results

During the fall semester preceding the study, a preliminary feasibility study was conducted with a similar population of master's level teacher candidates at the same university. The class chosen for the feasibility study was a graduate-level education class in reading and writing across content areas that were part of the curriculum program from grades 7-12, designed to encourage professionals from other fields to become teachers. The feasibility study did show that the intervention produced improved essay scores (See Table 1) and I proceeded the following summer with the study.

Twenty six teacher candidates volunteered for the feasibility study. The class had been studying the teaching of writing in the content area, so the instructional methodology fit within the curriculum. For reasons of illness or other absences, six of the original group did not complete the treatment group. Gaps in the participant numbering in Table 1 reflect this reduction to 20.

Table 1. Feasibility study participants' essay scores

Participant	Group	Pre-test			Post-test			Change Δ
		1	2	Total	1	2	Total	
1	1	3	3	6	4	4	8	2
2	1	3	2	5	3	5	8	3
4	1	4	3	7	4	5	9	2
5	2	4	3	7	4	4	8	1
6	2	3	3	6	5	5	10	4
7	3	3	4	7	3	5	8	1
8	2	2	4	6	3	5	8	2
9	1	4	3	7	4	4	8	1
10	1	5	3	8	4	5	9	1
13	2	2	2	4	4	5	9	4
15	1	4	3	7	3	4	7	0
16	3	4	3	7	4	5	9	2
17	2	4	4	8	5	5	10	2
19	3	3	3	6	4	5	9	3
20	1	1	2	3	2	3	5	2
21	2	2	2	4	3	4	7	3
22	2	3	3	6	5	5	10	4
23	3	3	3	6	4	5	9	3
24	3	4	4	8	5	5	10	2
25	1	2	3	5	4	4	8	3

During the first session, participants were given a Pretest Survey concerning their attitudes toward writing. They were also given a Pretest Essay. Students were also introduced that session by my lecture to principles of the Nominal Group Technique. The following week, I met again with the class. I began the session with breaking the students into three groups, according to Nominal Group Technique guidelines. Students discussed in their groups the points of the essay they had written the week before for the pretest. They nominalized the points from one to five wrote the points on a visible chart tablet. Students then rewrote the essay and completed a posttest essay. The prompt for the essay was based on the Read SAT II: Test of Writing, Essay Section (College Board, 2002), as was the rubric the two independent raters used to grade the essays. The raters awarded a score of 1 to 6 and these scores were combined to give a possible 12 for a top rated essay.

The mean of the pretest was 6.15. The mean for the posttest was 8.45. The mean increased from pretest to posttest by 2.250. I was encouraged that the intervention was having a positive effect on writing scores in participants.

Reactions to the intervention was mixed, but a clear reluctance toward writing was evidenced in the surveys, both pretest and posttest. From the Feasibility Study it was determined that students needed more of an introduction to the Nominal Group

Technique, so a factual reading was introduced to the treatment group prior to the investigation (Korhonen, 1998). Group leaders were asked to volunteer in the pretest session, rather than be randomly assigned, so they could be given some training in how to lead prior to the study.

3.2 Result of the Treatment Groups Nominal Voting on Concepts

Table 2 shows Group T-1's nominal voting on concepts. Table 3 shows Group T2's nominal voting on concepts.

From the discussion notes of the participants prior to the voting, concepts noted matched up to the final five concepts in the following ways: Group T-1 had 12 instances of independently written concepts matching up to final concepts and Group T-2 had 13 instances of independently written concepts matching up to final concepts.

Table 2. Group T-1's Nominal Voting on Concepts

<ol style="list-style-type: none"> 1. Freedom is a right and a privilege. 2. Perception of freedom is different for everyone. 3. Discipline and freedom go hand in hand. 4. Freedom should be protected and respected by society. 5. Be aware of another person's freedoms before or own. Obtain a better understanding of other people's work.
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Table 3. Group T-2's Nominal Voting on Concepts

<ol style="list-style-type: none"> 1. Determine definitions of freedom and discipline. Discuss how they interrelate. State your views. 2. There are two types of discipline: <ol style="list-style-type: none"> a. self b. external (government, society, laws). 3. Freedom, related to productivity. With discipline, you can use your freedoms. 4. Lack of discipline might lead to loss of freedom. 5. Requires self-discipline in order to allow others to express and practice their freedoms.

Table 4 shows the relationship between independently written concepts and those finally generated by the group.

Table 4. Relationship between independently written concepts and nominalized group concepts

Group	Group Concept	Members Individual Notation
T1	Freedom is a right and a privilege.	7, 6, 3
	Perception of freedom is different for everyone.	7, 6
	Discipline and freedom go hand in hand.	7, 3
	Freedom should be protected and respected by society	9, 7, 6, 3
	Be aware if another person's freedoms before our own. Obtain a better understanding of other people's work.	9
Total individual notations		12
T-2	Group Concept	Members Individual Notation
	Determine definitions of freedom and discipline	8, 5
	There are two types of discipline: a) self b) external	8, 2, 1
	Freedom, related to productivity. With discipline, you can have freedom.	5, 2
	Lack of discipline might lead to loss of freedom.	10, 8, 5, 1
Requires self-discipline in order to allow others to express and practice their freedoms.	10, 2	
Total individual notations		13

3.3 Analysis of Treatment Group Essays

Independent raters evaluated the essays from both the pretest and posttest sessions according to the prescribed rubrics (College Board, 2002). As in the feasibility study, essays were rated on a scale of 1 to 6, with six being the most proficient. Both ratings were combined to give the participant a possible maximum score of 12. Table 5 shows the results of the rating of the pretest and posttest essay of the Treatment Group, as well as the calculation of the individual participant's change in rating score $\Delta = \text{posttest total score} - \text{pretest total score}$, from pretest to posttest. From pretest to posttest essays, the change in each individual participant's ratings score, $\Delta = \text{posttest total score} - \text{pretest total score}$, increased by an average of 3.444 on the 0 to 12 total rating scale. The mean of the Treatment Group's Δ 's had a standard deviation of 1.944. The range of scores on the pretest essay was 2 to 4 on individual ratings and 4 to 8 on combined. The mean of the pretest essay was 6.111 with a standard deviation of 1.453. The range of posttest scores for individual raters was 4 to 6. The range for combined scores was 8 to 11. The mean of the posttest

essay scores was 9.333 with a standard deviation of 2.449. The means of the individual student scores had improved overall from pretest essay to posttest essay.¹¹

Table 5. Results of the essay ratings of the treatment group

Participant Number	Group	Pretest		Total	Posttest		Total	Change Δ
		Rater 1	Rater 2		Rater 1	Rater 2		
1	T-2	2	3	5	4	5	9	4
2	T-2	4	4	8	4	5	9	1
3	T-1	3	3	6	5	5	10	4
5	T-2	4	4	8	5	6	11	3
6	T-1	3	2	5	6	4	10	5
7	T-1	3	4	7	5	5	10	3
8	T-2	2	3	5	5	6	11	6
9	T-1	2	2	4	4	4	8	4
10	T-2	3	4	7	4	4	8	1

The same writing prompt used twice could create a ‘practice effect’ (McCormick, 1985). However, using a different topic to avoid the practice effect could create a ‘topic effect’ (Schmidt, 2003) when performing a pretest and posttest study. I thought the risk of the ‘topic effect’ was greater than the risk of the ‘practice effect.’ Variance of ‘practice effect’ can be wide-ranging, according to College Board experts (Schmidt, 2003). The statistical use of the ordinal variable, Δ (=posttest total rating score minus pretest total rating score), compensated for the practice effect by considering the mean change of the ratings of the Control Group to be the practice effect of the retest and posttest study.

3.4 Results of Concept Use in Pretest/Posttest Essays

Examining the posttest essays of the treatment group in relation to the concepts generated produced the following information. Thirteen instances of the five concepts appear in Group T-1’s essays. Each of the four participants in Group T-1 used at least two of the five central concepts. Three participants used concept 1, two used concept 2, three used concept 3, three used concept 4, and three used concept 5. In Group T-2, seventeen instances of the five concepts appear in the Posttest Essays.

¹¹ Interrater reliability on the same paper was in line with universally accepted reliability figures (Kobrin, 2003; Schmidt, 2003). For the Treatment Group, the interrater reliability on the same paper was .73, while for the Control Group it was .56. This compares well with the figure of .68 accepted by the SAT. Interrater reliability for reader agreement was within two points and was 1.00 for both groups which should be compared to the SAT-accepted figure of .94. The Spearman-Brown split-half reliability formula (Sprinthall, 2000) applied to the Treatment Group produces an $r(sb)$ of .73 and an $r(sb)$ of .56 for the Control Group. The overall reliability of the writing scale is approximately .88.

All five used the first concept in their essays, four used the second concept, three used the third concept, one used the fourth concept and four used the fifth concept. All five concepts were used in some part of one of the participant's essays, indicating a correlation between the groups' responses. The data also indicates that there is a strong relationship between the concepts that the nominal groups voted on and the concept used on participant essays. Group T-1 used their group concepts 13 times and Group T-2 used their group concepts 17 times. This would indicate a high correlation between the words spoken in groups and the words written on the posttest essays. Tables 6 and 7 show this relationship.

Table 6. Group t-1's concept use in the posttest essays (total concepts used: n-13)

Concept Ranking	Concept	Participant Number			
		3	6	7	9
1	Freedom is a right and privilege	yes		yes	yes
2	Perception of freedom is different for everyone	yes	yes		
3	Discipline and freedom do hand in hand	yes		yes	
4	Freedom should be protected	yes	yes	yes	
5	Be aware of another person's freedoms and your own		yes	yes	yes

Table 7. Group t-2's concept use in posttest essays (Total number of concepts used: 17)

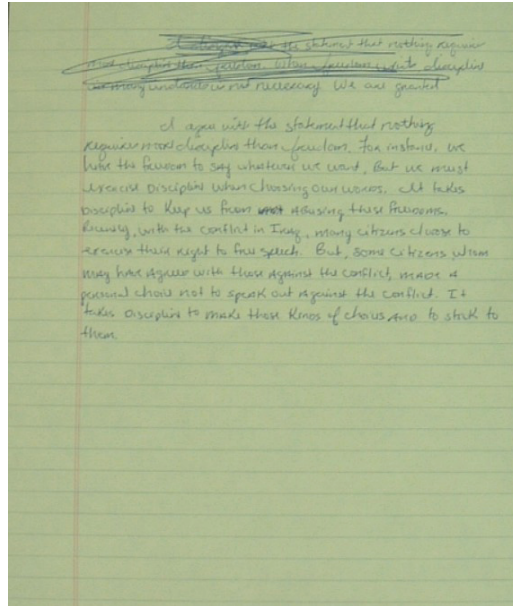
Concept Ranking	Concept	Participant Number				
		1	2	5	8	10
1	Determine definitions of freedom and discipline	yes	yes	yes	yes	yes
2	Two types of discipline: self and external	yes	yes	yes	yes	
3	Freedom related to productivity; with discipline you can use freedom	yes		yes		yes
4	Lack of discipline might lead to loss of freedom				yes	
5	Requires self-discipline to allow others to express and practice their freedom	yes		yes	yes	yes

In comparing the concepts used in the essays to concepts generated in independent note-taking, in Group T-1, 12 concepts were generated in note-taking that were later used by the group and 13 members used group concepts in their writing. In Group T-2, 13 concepts were generated in individual note-taking that were later used by the group and 17 used group concepts in their writing. This would indicate that the Nominal Group Technique process affected the content of the Posttest Essays. Also, more concepts were generated in the written essay than in the individual note-taking. Table 8 shows this relationship.

Table 8. Relationship between independent notes, written concepts and group concepts

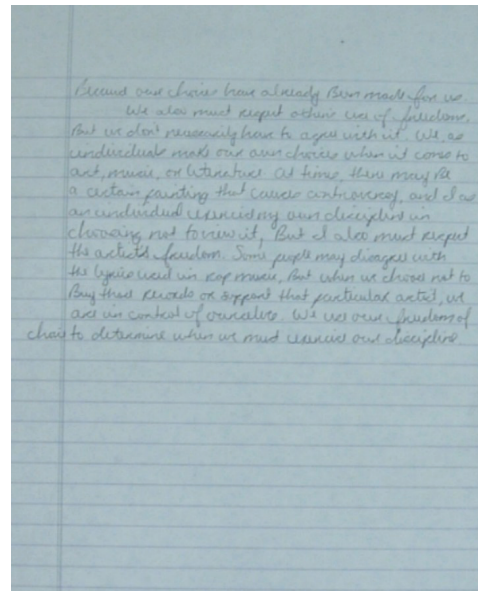
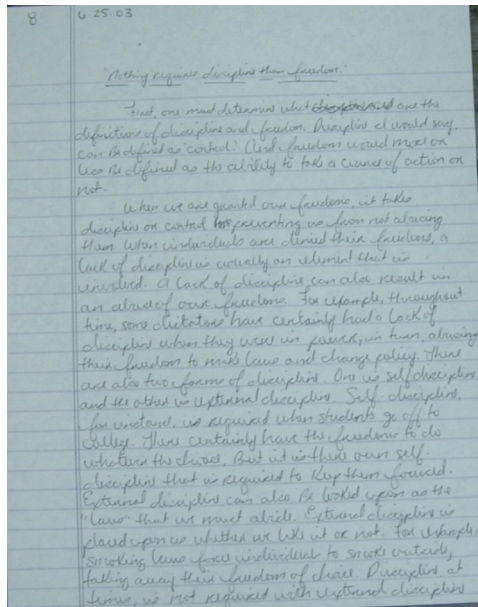
Group T-1	Group Concept	Members Individual Notation	Members Use of Concepts in Essays
	Freedom is a right and a privilege.	7, 6, 3	9, 7, 3
	Perception of freedom is different for everyone.	7, 6	6, 3
	Discipline and freedom go hand in hand.	7, 3	7, 3
	Freedom should be protected and respected by society	9, 7, 6, 3	7, 6, 3
	Be aware of another person's freedoms before our own. Obtain a better understanding of other people's work.	9	9, 7, 6
Total Notations		12	13
Group T-2	Group Concept	Members Individual Notation	
	Determine definitions of freedom and discipline	8, 5	10, 8, 5, 2, 1
	There are two types of discipline: a) self b) external	8, 2, 1	8, 5, 2, 1
	Freedom, related to productivity. With discipline, you can have freedom.	5, 2	10, 5, 1
	Lack of discipline might lead to loss of freedom.	10, 8, 5, 1	8
	Requires self-discipline in order to allow others to express and practice their freedoms.	10, 2	10, 8, 5, 1
Total Notations		13	17

In comparing the pretest and posttest of two participants, Participants 8 and 9, there is clearly an improvement in concepts put forth in writing. Participant 8 shows a marked development in essay from Pretest to Posttest Essay.

Group T-2's Participant 8 Pretest Essay

In the pretest essay, this student offers one undeveloped paragraph. He makes a simple opening that he agrees with the statement given, 'I agree with the statement that nothing requires more discipline than freedom' and then uses one example of self-discipline. In his Posttest Essay, a three-paragraph, much more developed essay is written.

Group T-2's Participant 8 Posttest Essay



In the Posttest Essay, he begins with the much more developed opening:

First one must determine what are the definitions of discipline and freedom. Discipline I can say can be defined as 'control.' And freedom would more or less be defined as the ability to take a course of action or not.

Here the participant picks up directly the first concept in writing the essay from Group T-2's 'Determine definitions of freedom and discipline'. She then goes on to incorporate, in the second paragraph, concepts 2 'There are two types of discipline: a) self b) external' and concept 4 'Lack of discipline might lead to loss of freedom'. He summarizes his points in the final paragraph. Participant 8 went up 6 points in her Posttest Essay, from a 5 to an 11.

Group T-1's Participant 9 Pretest Essay

Freedom is a right & a privilege. To take it away from a deserving person is to deny their free will. A reprehensible crime. Even one has a different perception of freedom so it is important not to encroach on anyone else's freedom by using your own. Someone who does use their freedom and in the process takes away another's freedom should be disciplined. When you kill someone, it is your freedom of choice that allows you to do this. In the process though, you are taking away another's freedom. This is where discipline is necessary. Hitler took away others freedom by being carried away using his own. He is one of the worst examples. Another is the Supreme Court. They have the freedom to indict people and accuse them in cases where the victims freedom is brought into question by the convicted. The court case Roe vs Wade is now in talks to be overturned, which would mean women lose their freedom of choice. There is no

convicted party, only a victim in this case, women. The court does not have the right to take away freedom without any ~~an~~ instigator. Women should have all the freedom of men and the court wants to take that away. The court should not even have to question this court case. The mere idea that it would ~~start~~ be taking away freedom makes it absurd that they would consider it. They have no right to take away this privilege when no one else's freedom would be affected by the woman's choice.

In her Posttest Essay, Participant 9 refers directly to Concept 1 in Group T-1. She begins, 'Freedom is a right & a privilege. To take it away from a deserving person is to deny their free will...'. She mirrors Concept 1, 'Freedom is a right and a privilege'. Although there are some errors of convention, she then goes to give specific examples to support this statement. She also uses concept 5 of 'Be aware of another person's freedoms before your own. Obtain a better understanding of other people's work'. She cites the abortion controversy as an example of being aware of another person's freedoms before your own. This student scored 4 in the Pretest Essay and 8 in the Posttest, for an increase of 4 points.

3.5 Analysis of Control Group Essays

Table 9 presents the results of the essay ratings of the Control Group. Individual scores on the pretest and posttest essays by rater are presented, as well as the composite scores. The change, Δ , from Pretest to Posttest Essay is also presented.

Table 9. Control group rating results of the pretest and posttest essays

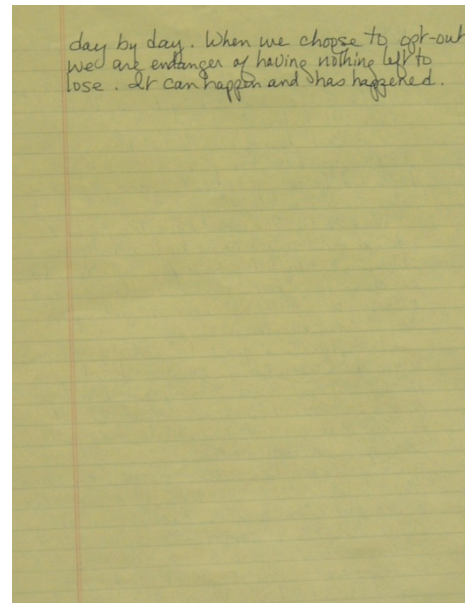
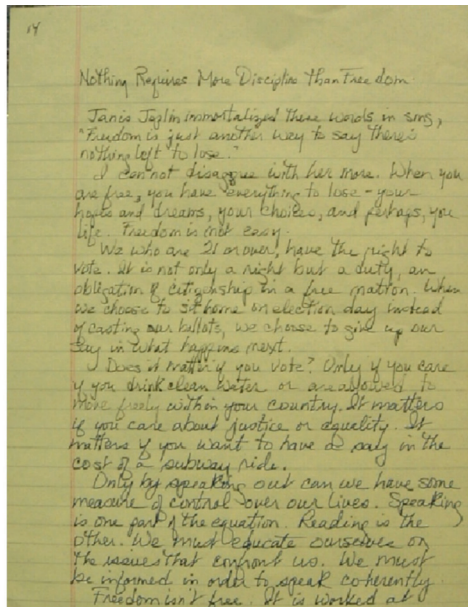
Participant Number	Pretest Essay			Posttest Essay			Change, Δ
	Rater 1	Rater 2	Total	Rater 1	Rater 2	Total	
1	3	5	8	5	5	10	2
2	4	3	7	5	5	10	3
3	2	3	5	3	4	7	2
4	4	4	8	5	4	9	1
5	4	3	7	4	5	9	2
6	5	6	11	3	4	7	-4
7	2	2	4	3	3	6	2
8	4	4	8	4	3	7	-1

Analysis: Mean of $\Delta = 7/8 = 0.875$. Variance of mean = $[8 \times 43 - 49 \times 49] / (8 \times 7) = [344 - 49] / 56 = 295 / 56 = 5.268$; Standard deviation of mean = 2.295.

The pretest individual ratings of the Control Group ranged from 2 to 6. The conglomerate score ranged on the pretest from 4 to 11. The posttest individual scores ranged from 3 to 5. The conglomerate posttest scores ranged from 6 to 10. The mean of the total scores of the Pretest Essays was 7.250 with a standard deviation of 1.984. The mean of the total scores of the posttest essays was 8.125 with a standard deviation of 1.553. The mean change in scores, Δ , from the pretest to the posttest was .875 with a standard deviation of the mean of 2.295. This showed a slight improvement in scores.

Participants 6 and 8 from the Control Group, declined in their scores from Pretest to Posttest Essay. In the first essay, Participant 6 begins with a quote from a well-known song to begin her argument. She writes: 'Janis Joplin immortalized these words in song 'freedom is just another way to say there's nothing left to lose'.' She then goes on in four more paragraphs, to negate the quote with examples from education and government.

Participant 6's Pretest Essay



In her Posttest Essay, Participant 6 begins with 'Freedom is not free. I wish we'd stop thinking it is. We get lazy when we think that we don't need to do anything but be a recipient'. This is a more nebulous, weaker beginning. She goes on in two more paragraphs, a shorter essay than the first, to try to argue her position, but does not make as strong an argument. Here she never defines the 'we' she uses repeatedly. She finishes with 'Discipline means putting in the hard work required to be a citizen of a free country. That's the price of citizenship. and it's not cheap'. The closing reiterates some of the concepts in the opening, but no clear argument is made for 'hard work' as it relates to freedom. The student was rated a strong 11 on her Pretest Essay, but goes down to a 7 on her Posttest Essay.

Participant 6's Posttest Essay

14 7/2/03

Freedom is not free. I wish we'd stop thinking it ~~is~~ is. We get lazy when we think that we don't need to do anything but be a recipient. We stop listening, stop reading, stop thinking about the way we are governed. We let "them" make decisions for us. We blame "them" for not ~~giving~~ ~~the~~ when we don't have what we want or need.

No. Freedom is not free. Our country is not at war ostensibly to make us safe. The cost of this war is staggering. We can tally it in terms of ~~the~~ lives lost, lives shattered, dollars spent on guns and bombs and K-P nations. We can add in the cost of losing the good will and respect of most of the world. Then add the dissolution of our own citizens. Free? I'd say costly myself.

The question at hand is how much discipline does freedom require? It requires we read, listen, debate and keep the issue before us at all times. We must take time every day, to think about our way of living and to look for places we

need to intercede. ~~Discipline~~ Discipline means putting in the hard work required to be a citizen in a free country. That's the price of citizenship and it's not cheap.

Student 8 also went down from Pretest to Posttest Essay. In his Pretest Essay, Student 8 gives a direct opening and defines his terms. 'Nothing requires more discipline than freedom is a statement I would agree with if freedom is referring to the freedom of individuals'. He then goes on and cites negative examples of denying freedom, such as what happened under the Nazis, to positive examples of individual freedom, such as the philosophies of Ghandi and Martin Luther King, Jr. This essay was rated a strong 8.

Participant 8's Pretest Essay

Nothing requires more discipline than freedom is a statement I would ~~not~~ agree with if the freedom is referring to the freedom of all individuals. ~~Throughout~~ throughout history, in all cultures and societies discipline has not been the main requirement if you are seeking your own freedom or the freedom of your "group". Discipline was not the control factor for the masses to maintain their freedom at the expense of some or was it for white Americans at the expense of some Americans or our slaves. ~~The~~ students were one person or a group of persons advanced freedom for themselves with staying it to others, they used violence, fear, anger and hatred. This kind of freedom was not founded on discipline but actually the exact opposite. This is a freedom based on selfishness, selfishness, and a pursuit of what we want at all costs. True freedom requires discipline. Not only ~~for~~ for the oppressed group are demonstrated by ~~and~~ business under the leadership of Martin Luther King Jr. or our South home leaders led by Gandhi but by the oppressors as well. There is a certain sort of discipline involved in going up your individualism in order to achieve true freedom for yourself and for all others.

Participant 8's Posttest Essay.

Nothing requires more discipline than freedom. I would have to agree with the statement if the freedom we are discussing is the a freedom for all groups and individuals. I say this because I believe there is a great deal of discipline required for an individual or a group who can ~~impose~~ impose their will upon another individual or group to not do so. Can there really be a benevolent dictator? Can the ideals of socialism ever prevail or will it fall as it did in Russia, China and Cuba? For ~~there~~ there do be true freedom the group with social, economic, physical, ~~and~~ political and military power must not abuse it and must not use it for their own purposes. Call me a skeptic but knowing human nature, a person even with the greatest ~~with~~ intentions will eventually succumb to greed and power. They will not completely abuse it so ~~one~~ some have a history but sometimes greed, power and corruption will sweep us away. Therefore, there nothing requires more discipline than freedom.

Student 8 did not perform as well in his Posttest Essay. He opens with a mere repetition of the prompt, with no argument. 'Nothing requires more discipline than freedom'. He writes a shorter essay this time, offering some scattered remarks about socialism and greed, but does not come through with a sound position. He drops a point to a 7.

I did not do the formal surveying of the Control Group that I did with the Treatment Group, but students in the Control Group did share that they were disinterested in a process of just repeating the same essay twice. There was no discussion, sharing of ideas, or class participation. This would lend support to the concept that academic writing could not be done in isolation.

Recall that the mean change in rating scores, Δ , for the Treating Group was 3.444 while that of the Control Group was .875. Using the respective standard deviations (1.943 and 2.295) of these means, I calculated a one-tailed t -test, examining the postulated increase in the change in rating scores at the 5% level of significance. This yielded a $t=2.4995$ with 15 degrees of freedom. Because the critical value of $t_{0.050}$ with 15 degrees of freedom is 1.7530, the increase in Δ is significant at the 2.5% level of significance ($t_{0.025}=2.1315$ with 15 d.f.). The statistic Δ was formulated to incorporate the practice effect of using the same essay prompt twice. The t -test analysis above affirms that the net increase in mean Δ 's of 2.369 is significant and can be accepted as experimental proof that the instructional methodology, the

Nominal Group Technique, is effective in improving the writing skills of participants.

3.6 Analysis of Pretest and Posttest Surveys

All participants finished the surveys with varying lengths and formalities. Seven wrote one paragraph, two students wrote two paragraphs. Five students self-edited their responses. Seven wrote complete sentences and two wrote incomplete phrases. Table 10 charts the Pretest Survey of the nine participants attitudes toward writing.

Table 10. Participants reactions on the pretest survey

Number	P	N	R	M	WI	D	V	Terms used
1			R	M	WI	D	V	I'm and ok writer; important skill to have
2	P		R	M	WI	D	V	enjoyed writing; very important to know
3	P			M	WI	D	V	great way to express feelings; put a lot of pressure on myself
5		N	R		WI		V	do not write on my own; continually trying
6				M	WI	D	V	more of a verbal person; constantly looking for ways to improve
7			R	M	WI	D	V	organizing ideas and conveying meaning; harder task ... once I get a "sparkling" idea
8	P						V	always did much better on projects; method I prefer
9	P			M				enjoy writing; do not like length restrictions
10	P					D		comfortable and confident; multistep process

Reaction Codes: P = positive; N= negative; R=reluctance toward writing; M=mixed; WI=Wants to improve writing; D=defined writing; V=valued writing as a skill.

Table 10 indicates that five students felt primarily positive about writing. Only one student exhibited primarily negative attitudes toward writing. Six participants indicated mixed feelings about writing. Six students indicated a need to improve their writing skills. Four students indicated a basic reluctance when approaching a writing task. Six participants attempted to define writing. Seven of the nine participants indicated that they valued writing as a skill.

The most surprising part of the survey was that these students, who were considered to be successful, competent writers at a private graduate school, often considered themselves poor writers. Here are some excerpts from their surveys:

I feel as though I am not a great writer.

I don't consider myself to be the best writer...

I think I am an o.k. writer, but with more practice one can become better...I really admire people who are good writers.

Students overall valued writing and wanted to improve their writing skills. Here are some excerpts from their surveys:

I feel that writing can be a very useful too in expressing oneself as well as information. In any profession writing will be used, s a person needs to prepare themselves in the best way possible.

I...think it is very important to know how to write well.

I am extremely cognizant of my writing skills and style so I constantly look for ways to improve it.

In the Posttest Survey, there was two sections. The first section asked about the reactions to the intervention. The second asked about their feelings about writing. Table 11 describes participants' reactions to the intervention.

Table 11. Participants' reactions to the intervention in the posttest survey

Number	P	N	M	DI	C	L	TC	Terms used
1	P				C		TC	interesting to work with people in this way; stimulating
2	P		M		C	L		enjoyed this exercise; helpful w/ my essay
3	P				C	L		helped me organize my thought; interesting
5	P				C	L		able to elaborate more; helpful to hear different interpretations
6	P				C	L		seeing it from the other man's side is . . . helpful; learn other perceptions
7	P			DI	C			great to share with the classmate; don't think I improved
8	P				C	L		I had so many more ideas
9			M	DI				an undesirable experience; resented
10		N	M					stressful; enjoyed being a group leader

Coding for Participants; Reactions to the Intervention: P=Positive; N=Negative; M=Mixed; TC=Participant felt time restraint; DI=Didn't Improve; C= Class was a collaborative experience; L=Learned from the experience.

According to the responses, seven of the nine participants found the class experience to be positive. Responses included:

I enjoyed this exercise.

It is always good to work at a writing exercise.

It was interesting how I had so many more ideas or thoughts that I could put into an essay.

One who had a negative reaction said she found it to be a stressful experience. Three participants had a mixed reaction. Five of the nine felt they learned something from the intervention. One expressed it in this way, 'The group discussion helped me organize my thoughts so that when it came to write the essay the 2nd time I felt more confident'. Seven participants felt this was an exercise that promoted collaboration. Among the comments was 'Most important is the ability to hear other ideas and learn others perceptions on a topic'.

The Posttest Survey also had a discussion about the participants' feeling about writing. This was devised to ascertain if there was a change in attitude toward writing from pretest to posttest session. Table 12 describes the participants' attitudes toward writing in the Posttest Survey.

Table 12. Participants attitudes toward writing in the post-test survey

Number	P	N	M	WI	R	V	Terms used
1		N		WI	R	V	I do not think that I am great writer; great way to express one's thoughts
2	P					V	I enjoy writing; one of the most important skills
3	P		M		R	V	I still enjoy writing; prefer to write on a computer
5			M	WI		V	Through practice I feel I will improve; constant challenge
6		N		WI	R		never thought of myself as a writer; interesting
7			M				too many ideas running around in my head
8	P		M		R		writing is still a work in process for me; easy . . . and just awful
9			M		R		enjoy writing; freehand is hard
10	P		M	WI			my writing has come a long way; long way to go

Coding for Participants' Attitudes Toward Writing: P=Positive; N=Negative; M=Mixed Reaction; WI=Wants to improve writing; R=Reluctance about writing; V=Values writing

Four of the nine participants indicated positive reactions toward writing in the Posttest Survey, while only two had negative reactions. Six participants had mixed reactions to writing. Here are some reactions: 'I do not think I am a great writer, how-

ever, w/ more practice, one can improve'; 'I feel that it is a constant challenge and an area that will constantly be evolving and hopefully improving'. Four again stated they wanted to improve their writing skills and five still evidenced a reluctance toward writing. Four said they valued writing.

Participants' attitudes toward writing did not change significantly toward writing as a result of the intervention. They still evidence a mixed reaction to writing and indicated a slight improvement in their reluctance to write and indicated that they valued wanting and wanted to improve their writing.

3.8 Observer Reactions During the Treatment Group

The observers noted that all the guidelines of the Nominal Group Technique were met. All of the observers felt that each step of the discussion process that he/she observed was carried out by the group successfully. Two observers commented on the competence of the group leaders. Two observers noted that everyone participated in the round-robin listing of concepts. There were some variations noted, such as in the open discussion portion the discussion overflowed into the sharing of individual concepts, but guidelines were followed overall. Three of the four observers made positive comments about the process, including 'good discussion between group members' 'Even distribution of discussion.'

4. CONCLUSIONS

In conclusion, many implications came out of this small-scale study. While it would be inappropriate to attach too much significance to the findings due to the limited size and nature of the study, there are however, some discernable trends. Some of the results were surprising and some expected. I entered into the investigation in hopes of gaining information about the academic writing of teacher candidates.

For my sample, I used a group of graduate education students at a private university who were considered competent and successful academic writers who spoke English as their home language. Many of the participants identified themselves as poor or reluctant writers. Many also expressed an interest in improving their academic writing at this advanced stage of their academic career.

In terms of both concepts generated in the intervention and improvement in writing scores between Pretest and Posttest Essays, the intervention was successful. The analysis of concepts generated in the groups and concepts written in the Posttest Essays indicated a strong relationship between what was discussed and what was written. There was also a growth in concepts between individual concept notation and group discussion. The concepts were not only discussed by the students, but also applied to the task at hand, the writing of the Posttest Essay. Independent ratings of essays improved from pretest to posttest in the treatment group, but only slightly in the control.

The intervention was a collaborative, student-centered methodology in which students taught themselves to significantly improve their writing. It should be noted that no time in the intervention did I provide instruction in the writing process or

give any information on the essay topic itself. This is a design in support of establishing discourse communities in academic setting to serve as audience to academic writing and replace the teacher as authority to the isolated students.

Analysis of the Pretest and Posttest surveys indicated that there was not a change in attitude toward writing from pretest to posttest sessions. I surmised that there was not enough impact in such a small-scale study to effectuate such a change. Reactions to the class experience, however, were largely positive. Reactions to the control experience, where writing was done in isolation, were largely negative. These are indications that social interaction, peer support, and collaboration are welcome interventions as a prelude to academic writing.

Four observers of the two groups kept notes during the intervention. They did note exceptions to the class Nominal Group Technique model, but overall felt the guidelines were followed. Three out of four observers made positive comments about the group discussion. If outside observers, in addition to participants, thought the intervention a positive experience, this stands in sharp contrast to the reluctance most students voiced about writing in isolation.

5. IMPLICATIONS

Although this study was small-scale in a small class, it was done in a naturalistic educational environment using a specific cohort of teacher candidates at the beginning of a teacher education program. The study has limited generalizability, but has some clear implications. The major implication for teacher preparation in this research is that teacher educators need to provide opportunities for teacher candidates to practice and discuss writing skills in preparation for assessment tests and professional educational genres. Also, educational environments should be rich with discourse communities that draw on the strengths of teacher candidates' spoken discourse as a basis for written discourse as a prelude to academic writing.

The research indicates that the teaching of writing is better done interactively and in discourse, as opposed to formal grammar and convention instruction. Teacher candidates in the United States are failing state teacher assessments in the academic essay and ways need to be devised to help them succeed. Bringing the writer into conversation seems to advance writing proficiency in teacher candidates, but this paradigm does not resolve the uneasy relationship with authority cited by Elbow (1981): should the instructor be gatekeeper or coach. More research needs to be done on effective ways to provide teacher candidates with instruction in writing conventions that are not addressed in the present study.

Participants in both groups cited a reluctance toward writing, even if they were considered successful in academia. They also indicated that they valued writing and wanted to improve their own skills in regard to writing. This is a clear imperative to educators and college instructors that teacher candidates experience stress around academic writing, while valuing it and looking for ways to improve. Educators of teacher candidates should, therefore, provide supportive, interactive student-centered classroom discourses as a prelude to academic writing.

Speech is the modality that allows us to pay attention to audience. Listeners give clues when they don't understand what we say. It is logical that discussion prior to writing can only enhance the writing process. The involvement of an audience brings a closer connection between speaker and listener and ultimately writer and reader. The immediacy of speaking about a topic before writing brings meaning into the consciousness of the audience. It also brings to the writer the people the writer is writing to more directly.

It is particularly rich to combine speech with writing because in so doing, the student in the academic setting can draw on the strengths of both. The student who talks out a complex idea with peers can help develop and explore the multifacets of the idea prior to writing. In this very activity the gaps and holes of what the student understands can be filled out in speech and enhanced in the more complex modality of writing. The subordinations, abstractions, and nominalizations of the thought process can all be enhanced by the writing process. Therefore the combination of speech and writing can be a powerful union for the student struggling with academic discourse.

Educational practices leading to transformation may need to include student-centered, supportive discourse communities that value student interaction. Rather than emphasizing structure and conventions in academic writing, teacher educators may need to look at and teach student writing in a different way that is more content-based. This model of expediting written discourse through spoken discourse can be replicated easily within many content-area college courses.

Students who come to our academic communities from other cultures and speaking different home languages and Vernacular Englishes may be empowered through a student-centered, discourse-based, academic writing community to find their natural voices in their classroom discourse communities and apply their natural voices in written discourse. Student-centered discourse lends itself to empowering these often disenfranchised students to their oral strengths as a prelude to effective writing.

There were many open questions that emerge from the research. The present study, though situated in a naturalistic setting in an intact education course, was limited in scope because of the number of participants and the short time frame. Longitudinal studies examining the relationship of spoken and written discourse over a period of years repeated in many classrooms could provide further insight into student-centered, academic discourse groups as a prelude to writing.

Teacher candidates are not the only students who feel challenged about writing in the academic setting. The instructional methodology used in the study may be replicated and can be used for writing instruction in other areas besides education. Investigation could be conducted across the content area using a discussion model as a prelude to student writing. Different academic departments could experiment with taking academic writing out of isolation.

The particular study dealt with graduate students. Studies could be done on the undergraduate level with spoken discourse and written discourse. Teacher candidates on the undergraduate level would benefit from the examination of ways to facilitate academic writing, as well as other undergraduate students in other disciplines. Schools of education are not the only disciplines decrying a lack of writing proficiency in students.

There are also research implications in elementary and secondary levels for educators. The link between emergent writing and speech has long been documented in early childhood research. Studies should be done on the elementary and secondary levels to see if classroom-based discourse could create a bridge to more developed, classroom-friendly academic writing.

Teacher candidates' stress and reluctance toward academic writing is another aspect of the study that could be further explored. This group of teacher candidates entered as fairly proficient writers, and still voiced a distinct reluctance toward academic writing. Less proficient writers may well have even stronger reluctance to write. The present study indicates that a more student-centered, collaborative, nurturing environment is needed to support student writing. Research in the area of providing responsive classroom environments in which students can discuss issues of academia and write from that discourse are sorely needed.

Teacher candidates indicated that some of the stress around writing is based on the evaluations of the writing that are done in the academic setting. Evaluations of student writing often center on mechanics and conventions rather than the concepts brought forward. Much of the literature shows that there is a wide variance in the way in which educators evaluate student writing. Research into the ways that student writing is assessed and how it relates to classroom discourse would be a valuable contribution to the field. In fact, assessment of student writing in and out of the classroom is a whole area that needs to be thoroughly researched in all levels of education.

Research also could be done in the area of the many group discussion techniques that exist as a possible prelude to academic writing. I experimented with such group methodologies as cooperative learning, peer mentoring, and vernacular writing in preparation for the present study. The world of business particularly has a plethora of interesting group techniques to inspire task completion, such as writing, that could be explored by academics.

The concept of student-centered teaching and peer mentoring as a way of approaching academic writing also should be explored more fully in the field. The present study showed that students are capable of generating sophisticated and complex ideas amongst themselves that can be translated to paper. Having students mentor and scaffold their own ideas is a powerful concept, particularly in view of traditional approaches of direct instruction and emphasis on writing conventions. More research needs to be done with student-centered teaching that may empower and inform academic writing and discourse.

In the end, this study hopefully added to the research in student-centered, group interactive, peer mentored, models as a prelude to academic writing as a more successful methodology than the traditional approach of isolated, teacher-centered writing that still prevails in many classrooms. Much learning can take place in a variety of content areas though the student-centered spoken discourse to written discourse model. Teacher education programs need to incorporate nurturing, student-centered, peer-mentored models in classrooms to strengthen writing in teacher candidates.

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