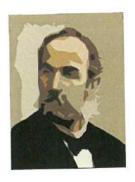
# TOUCHSTONE



VOLUME 7.1 (SPRING 2014)

EUGENIO MARÍA DE HOSTOS COMMUNITY COLLEGE THE CITY UNIVERSITY OF NEW YORK Volume 7.1 (2014)



## TOUCHSTONE

The Journal of the Professor Magda Vasillov Center for Teaching and Learning



#### TOUCHSTONE

Volume 7.1 (Spring 2014)

Published annually by the Professor Magda Vasillov Center for Teaching and Learning, the Division of Academic Affairs, Eugenio María de Hostos Community College of The City University of New York.

Editors

Carl James Grindley, Ph.D. English Department

Kim Sanabria, Ph.D. Language and Cognition Department

### Editorial Review Board

Jason Buchanan, Ph.D. English Department

William Casari Library

Robert F. Cohen, Ph.D. Language and Cognition Department

Sherese Mitchell, Ed.D. Education Department

Jennifer Tang, M.L.S., M.F.A. Library

The Professor Magda Vasillov Center for Teaching and Learning Eugenio María de Hostos Community College 500 Grand Concourse, The Bronx, NY 10451

The views expressed in *Touchstone* are those of the authors and do not necessarily reflect the positions of Eugenio María de Hostos Community College or The City University of New York.

Cover image: Hostos students entering the 475 Grand Concourse building on the first day of classes, September 14, 1970. CUNY signed a ten year lease for the former ARCS Industries Building and renovated it for Hostos. Magda Vasillov, photographer. Magda Vasillov Collection, Hostos Community College Archives.

Copyright © 2014 by the authors. All rights reserved.

## TABLE OF CONTENTS

Carmen Coballes-Vega	Preface			
Carl James Grindley and Kim Sanabria	Introduction	7		
Orlando José Hernández	Maestro Hostos Turns 175: A Celebration of Many Strands and Colors	11		
William Casari	Community Archives and Autonomy: Meeting the Challenge to Preserve Vital Records of the College and the Community			
Matthew Flaherty	Magda J. Vasillov	27		
Tonina Aragona	The Evolution of E-Learning	29		
Azizi Seixas and Kate Wolfe	Using iPads as Creative Tools in Teaching Psychology at an Urban Community College	33		
Sherese A. Mitchell	Letter to Blackboard	39		
Andrew Hubner	Bronx Latin	41		
Phillip Wander	Mussolini's Rhetoric	47		
Inmaculada Lara-Bonilla	Adamantia: An Intermittent Search for Words	57		
Alice Welt Cunningham and Kathleen Markert Doyle	Developmental Algebra Assessment: Closing the Loop Under Shifting Exit Standards	61		
Carolyn Steinhoff	Assessment of Our Assessment: A Case for Student Participation			
Linda L. Ridley	Enhancing Student Response to Academic Stimuli in a Community at Risk			
Nelson Núñez-Rodríguez, Na Xu and Francisco Ordóñez	Developing Students' Quantitative Reasoning by Implementing ePortfolios in the Chemistry 210 Class for Science and Engineering Majors	79		
Elyse Zucker	An Educational Oasis in an Urban Food Desert: Service Learning in Expository English			
Julie Trachman	Birds, Bees, Frogs and a Grass Carpet: Semi-random Thoughts about the State of Our "House"			



### PREFACE

## Carmen Coballes-Vega, Ph.D. Provost and Vice President for Academic Affairs

Our faculty share their work in this volume in a variety of ways: from the legacy of Hostos to the legacy of Magda Vasillov; from archives to online learning; from iPads to the 3-D Brain; from Birds, Bees, and Frogs to Blackboard; from the Intermittent Search for Words to ESL; from Algebra to the Urban Food Desert; from Assessment to Quantitative Reasoning; and from Bronx Latin to Mussolini's Use of Rhetoric. There is a rich diversity in the topics and threads running through this special volume and how they exemplify teaching and learning at Hostos. Our deepest gratitude to Professors Carl James Grindley and Kim Sanabria and the editorial team for their time and devotion to this volume.

When we reflect on the best teaching faculty at Hostos Community College, we identify individuals who are engaged in a series of deliberate actions including: providing intellectually rigorous opportunities for learning, purposeful planning for instruction, communicating knowledge and content rich lessons, articulating dynamic and complex concepts, challenging dispositions in need of redirection, testing hypotheses and exploring assumptions, sharing artistic expressions, critically analyzing decisions and beliefs, and reinforcing or redirecting ideas toward new views or perspectives. These faculty share a common expectation for their students, i.e. take as much as you can from the education before you and translate the knowledge, skills and dispositions you acquire toward positive action for your own growth, development and movement forward to become a productive citizen. As caring educators, the faculty are deeply concerned about each student, and they practice mentoring, modeling, dialogue, and affirmation. Of course, they are also ready to articulate expectations, provide focused feedback, provide redirection, firmly express disappointment as needed, and guide toward positive outcomes.

Hostos faculty participate with students in meaningful opportunities to extend learning. These exemplary faculty also find numerous opportunities to engage students both in and out of the classroom. You will find them connecting students in clinical settings, internships, theater productions, museum and art exhibitions, media design contests, game-framed learning experiences, service learning, honors colloquia or courses, technology showcases, travel abroad experiences, e-portfolio development, club activities, and collaborative research. We have been fortunate to have faculty lead students in intensive learning experiences: the International

Fringe Theater Festival, the Cuba Study Abroad Tour, the NASA internship at the NASA Huntsville Space Flight Center, the Bronx STEM Scholars Program, the Louis Stokes Alliance for Minority Participation in STEM; clinical rotations at Bronx Lebanon, Montefiore, and Lincoln Hospitals, the Hostos Design Lab with Massachusetts Museum of Contemporary Art (MASS MoCA), National Science Foundation game-framed math and science projects, and others. All of these activities require additional planning as well as out of class time for faculty. In a time when we are very focused nationally on persistence, retention, and graduation, it is extremely critical that our Hostos faculty know the merits of these learning opportunities. They participate because they know these experiences are assets for Hostos students and can provide transformational change in their lives.

A recent article "How Caring Professors Can Change Lives," in the *Chronicle of Higher Education* (May, 2014), reported on a survey of 30,000 American graduates undertaken by the Gallup-Purdue Index Report. The survey asked questions about employment, job engagement, and well-being. The results indicated that graduates "had double the chances of being engaged in their work and were three times as likely to be thriving if they had connected with a profession on campus who stimulated them, cared about them, and encouraged their hopes and dreams." The study also indicated that these results were found in both private and public university graduates. This evidence is consistent with other studies that have pointed to "caring faculty" as a definite contributor of why students remember faculty they have come in contact with during their undergraduate experience.

We enhanced the theme of "caring" in the spring of 2014 when we launched the Hostos Teaching Institute, an opportunity for experienced teaching faculty to share their expertise with other faculty within the college. The faculty who were participants commented on the quality of the ideas that were shared and the positive exchange among the faculty. We are appreciative of those who volunteered to support our new and continuing faculty and expect to continue this initiative in years to come or on an ongoing basis as part of the professional development program.

As we celebrate HOSTOS 175, we are reminded of the philosophy of Hostos' educational philosophy in the following statement: "In one of his journal entries, in Madrid, during the late 1860s, he wrote: "Si logro aprender, lograré ser." "If I can learn, I can become." Hostos was the perpetual learner, an individual who defined himself in terms of learning" (Hernandez, p. 11-12). For our students, the legacy of Eugenio María de Hostos is ever present in our faculty and their commitment to teaching and learning. The educational opportunity that our students experience here at Hostos Community College is a true testament to the groundbreaking work of Hostos the man, author, reformer, liberator, and human rights advocate. The achievements of the graduates of 2014 provide a significant and powerful intellectual connection to the educational philosophy and work of Eugenio María de Hostos.

#### **WORKS CITED**

How caring professors can change lives. (2014, May 16). Chronicle of Higher Education, pp. A3-6.

## INTRODUCTION

## Carl James Grindley Kim Sanabria

The number seven is considered universally propitious. Happily, *Touchstone* is now in its seventh edition, and this year's faculty journal honors an important landmark in the college's history: the 175th anniversary of Eugenio María de Hostos. This year, Hostos was also voted the first of the "Seven Treasures" representing the cultural heritage of his birthplace, Mayagüez. The award was yet another recognition of the beliefs and achievements of the pioneering educator and philosopher after whom our college is named.

Respecting the work of those who have gone before us was a hallmark of Hostos's thought. To honor his legacy in some small way, *Touchstone* opens with three pieces directly connected with his life and with our college's history. First, Humanities Professor Hernández gives an overview of Hostos's importance, discussing particularly the massive impact he had throughout the continent as he opened doors to educational opportunity for the disenfranchised, in particular to women. This year, the college has been honoring his memory in a yearlong series of events and celebrations, and students across the college have been reading his visionary writings.

William Casari, Library Archivist, addresses the importance of preserving our college's collective memory and describes the efforts taken by the library to safeguard the precious records that document the college's birth and history. The accompanying photographs show the hopes and dreams of the first students at the college, as they enter a disused tire factory in 1970 where the first classes were held, armed with the surety of their determination to succeed. These goals remain unmitigated today, as any student or faculty member at the college will attest.

The Hostos Archives house many of the photos that one of the original faculty members, Professor Magda J. Vasillov, took of the facilities, faculty, and students. Magda, a talented photographer, played a major role at the college until her death in 2006. During the last period of her life she served as chair of the Humanities

department and led the college in forward-thinking initiatives such as the General Education competencies. The Center for Teaching and Learning was named for this beloved colleague, and the journal honors her memory.

Since that first day when students are pictured entering class for the very first time, the process of learning has evolved in ways that were unimaginable at that time, and pedagogy is incorporating the new possibilities of the online world. We next include three pieces dedicated to the ways in which technology is shaping the educational experience for us all. Professor Aragona, from the Education department, gives an insightful overview of e-learning, and explains how andragogy, the learning behavior of adults, has acquired new meaning in a world where studying can take place in the self-directed environment that technology creates. Simultaneously, the role of the instructor has undergone a perceptible change, and as educators, we are now poised to redefine and reshape the learning experience of our students. Such is the thrust of the next piece, a collaborative report by Professors Seixas and Wolfe from Behavioral and Social Sciences, which describes ways in which the iPad enhances students' motivation and their ability to access resources. Finally, Sherese Mitchell, in her words a former "hesitant educator who ran from change in the area of technology," tells Blackboard the way she has come to feel about its impact on her life.

Touchstone was specifically designed as a forum for presenting personal reflections, scholarly articles, new initiatives in teaching and learning, and reports on classroom innovations. And, as in previous editions of the journal, we are now proud to include an original piece of literature, "Bronx Latin," an enigmatic tale leading to an encounter in the East Academic Complex. English Professor Hubner stretches a veil across the American continent, to disclose characters whose despair and determination, temptations and successes eerily echo emotions and situations that we all recognize.

The role and power of words are compelling topics to all language instructors, and particularly so to Professor Wander, from the Humanities Department's Unit of Modern Languages (French and Italian). In "Mussolini's Rhetoric," he argues that abstract oratory underpinned Mussolini's transformation from journalist to dictator to world conqueror.

Il Duce may have used words to forge fascist thought, but the thread of the next piece, "Adamantia," is that words also make conversations, convey dreams, and preserve legacies. Here, Professor Lara-Bonilla assembles a collection of microstories to delineate her journey to Hostos, from the time during her childhood when she would plead with her grandfather to tell her stories of the Spanish Civil War.

Returning to the present day, we next present four perspectives from mathematics, English, science and engineering. The first two, by Professors Cunningham/Doyle and Steinhoff, respectively, consider the intricacies of assessing the emerging abilities of students who score under the cutoff points of the CUNY Assessment Tests. Recent revision of mathematics assessment instruments has complicated efforts to measure all aspects of students' performance, but available data do provide the opportunity to make the most advisable modifications to class syllabi and practices. In "Assessment of Our Assessment," the make-or-break exam model is brought under scrutiny and a plea is made to reevaluate the ways in which we allow

8

students a say in their education. These are questions that certainly demand our

urgent attention.

Yet, the promise of creative pedagogy is on our side. Business Professor Ridley has found that promoting critical thinking, exercising greater focus on what researcher Carol Dweck has called a growth mindset, and experimenting with models such as the flipped classroom all lead to better outcomes among our students. And in a three-way collaboration between professors from the Natural Sciences Department and a representative from Information Technology, we learn about the ways in which quantitative reasoning skills can be enhanced in an e-portfolio environment when students are prompted to include personal reactions together with their reports on chemical formulae, separation of mixtures, and titraition. Self-reflection appears not only to bolster students' self-confidence, but to make far more accurate judgments too.

Seeking a similar level of student engagement, English Professor Zucker structured her Expository Writing class to include a service learning component. She reports on the experience, describing it as her most significant achievement of the academic year, in the following piece. Seemingly, her students were similarly delighted with the experience of participating in the Hostos Garden Market, because their journals revealed that they had learned not only how to research and document a topic, but also how to best apply critical information about agricultural methods, food distribution, health benefits of local produce, and food justice. Furthermore, their collaboration with Professor Figueroa's Business Communications students

was tangible proof of the benefits of working as a team.

Given the recurring symbolism of the number seven, for Nachmanides the number of the natural world, for the Iroquois seven generations of sustainability, and for the Chinese its association with the similar-sounding words "arise" and "life," it seems only fitting that our last piece in this seventh volume of *Touchstone* should focus once again on our interconnected existence. Arguing vehemently for more responsible ways of thinking about our planet and our place in it, Professor Trachman would doubtless agree with Hostos's argument in Moral Social: "the first truth to be learned .... and applied throughout is that individuals are a part of humanity and that the natural source and sustenance of each man is society as a whole." We owe it to ourselves, to each other, to our students and to our college to tackle the intractable challenges we face collectively. In this spirit, we offer you, our colleagues, this seventh edition of the journal of the Magda Vasillov Center for Teaching and Learning.

Special thanks go to the Provost, OAA and the Center for Teaching and Learning for supporting *Touchstone*; to contributors for sharing their work; and to the dedicated members of the college who worked hard on this volume: Jason Buchanan, William Casari, Robert F. Cohen, Sherese Mitchell, and Jennifer Tang.

Carl James Grindley

Kim Sanabria



## MAESTRO HOSTOS TURNS 175: A CELEBRATION OF MANY STRANDS AND COLORS

## Orlando José Hernández

Escribo para ser útil; por lo tanto, utilicen ustedes mis reflexiones, haciéndolas objetos de las suyas. I write to be useful; therefore use my reflections, making them the object of yours.

Eugenio María de Hostos

It has been said that celebrations tell us more about the people who celebrate than about the subject they celebrate. The Hostos 175th Anniversary Celebration

may not be an exception, and we welcome that.

Don Eugenio turned 175 this year and this celebration gives us a fine opportunity for us to study and disseminate Eugenio María de Hostos's work, to admire his accomplishments, and to promote a better understanding of his exemplary life. As we study this extraordinary figure, we should be aware that there are several strands in the larger-than-life picture of Hostos that we regard and revere: the scientist and the utopian, the intimate and the public man, the legendary and the historical figure, the analytical intellectual and the revolutionary activist. We should explore and bring all of these different strands to the table, so that our celebration can be as diverse as his vision, his thinking, and his endeavors.

In 1873, the 34-year old Hostos spoke in his lectures in Chile on "La educación científica de la mujer" [The Scientific Education of Women], of basing civilization on three major factors: work, science and morality. The natural sciences informed his sense of morality; he was an early reader of Darwin's seminal book "The Origin of Species." While in Paris in 1868, trying to avoid the repression of the Spanish monarchical regime, the young Hostos read Giambatista Vico's "New Science" and contemplated writing a treatise on what he called "an arithmetic of history." There is no indication as to whether he ever attempted it, but those were the signs of a highly inquisitive mind committed to intellectual inquiry. Throughout his life he also promoted "reflexive thinking," what we now call critical thinking. The analytical Hostos that stands as a major intellectual should also be an important part of our yearlong celebrations. He was a rationalist thinker who spoke of "la razón imaginante" or "the imagining reason," a suggestive concept yet to be fully explored. In one of his journal entries, in Madrid, during the late 1860s, he wrote:

"Si logro aprender, lograré ser." "If I can learn, I can become." Therefore, Hostos was the perpetual learner, an individual who defined himself in terms of learning.

Hostos was also an activist who devoted countless hours and efforts to bringing about profound political and social change. While we have made quite a bit of progress, some of the big issues of his times were not altogether different from ours: economic opportunity, access to education, gender and racial equality, political representation, the plight of the Native people, colonialism and the territorial expansion of the big powers or imperialism. Throughout his life, he was involved in addressing all of these. Journalism, education, and citizens' actions were the means used by this generous Caribbean man to pursue his ideals.

There is plenty to celebrate about Hostos. He was a 19th-century humanist and author who made significant contributions to education in the Dominican Republic and Chile. He saw the concept of rights—equal rights for everyone—as the basis for our social order. Consequently, he fought for human, civil, and national rights at a time when they had not yet been recognized as fundamental values of our civilization. Hostos was a committed abolitionist and a staunch advocate for the rights of women, of people of African descent, of Chinese people, of Native Americans, and of mestizos, all of which made him a champion of inclusiveness. Indeed, he seems to have been the most inclusive thinker in 19th-century Latin America.

Moreover, Hostos vigorously supported self-determination for colonial peoples, particularly in Cuba and his native Puerto Rico. He opposed the expansionist, imperial ambitions of powerful countries, including the United States—a country he deeply admired. He wrote against "the European oligarchy of nations" that had divided Africa and Asia amongst them, and he denounced the United States' territorial grab against Mexico in 1847, its ill-fated attempt to annex Santo Domingo and Haiti in 1869-71, and its takeover of Puerto Rico in 1898. His unflinching commitment to democracy led him to promote citizen participation in public affairs in ways that we now call the civil society, a term coined by Antonio Gramsci several decades later. Hostos conceived of a non-partisan, participatory citizens' role as "el poder social" or "the social power." The League of Puerto Rican Patriots (1898) and the League of Citizens in Santo Domingo were examples of this type of visionary, non-partisan work.

Hostos's work on education is well known. The creation of escuelas normales (teacher schools) in Santo Domingo was not originally his idea. President Ulises Espaillat and the Liberals had singled it out as necessary for nation building. It was Hostos, though, who not only brought it to fruition in the 1880s, but who infused it with such a mystique that Normalismo, the educational movement that he promoted with the new graduates, became an important instrument for change. He also empowered Salomé Ureña by making her co-director of the women's school. In Chile, during the 1890s, as rector of the Instituto Amunátegui, he explored new pedagogy and singlehandedly wrote texts in a slew of disciplines. His knowledge by then had become encyclopedic. In 1899 in Mayagüez, Puerto Rico, he founded a school for children in which he used globes, manipulables, direct observations from nature, and advanced methods of teaching.

Hostos's thinking about civic education is a relevant and important part of his legacy, and includes his support for popular education and his creation of evening schools for workers in the Dominican Republic and Puerto Rico. This makes him a forerunner of Paulo Freire, the contemporary Brazilian educator who proposed a

"pedagogy of the oppressed."

Latin American unity and an Antillean confederation of independent states were ideas dear to him as well. For these important contributions, the Eighth Pan American Conference in Lima, Peru in 1938 named Hostos "Eminent Citizen of America" on the wake of his centennial celebration.

Hostos earned his living earlier as a journalist and translator, and later on as an educator. His multifarious passion for knowledge led him to become a novelist, philosopher, sociologist, jurist, and ethicist. He had a gifted intellect and wrote extensively about issues and subjects of the most diverse nature. In 1838, the government of Puerto Rico commissioned the young Dominican writer Juan Bosch to compile Hostos's writings, and published his *Obras completas*. These complete works, although incomplete, fill up twenty volumes. While translations of his writings into English are sparse, there is a growing interest in Hostos, which will likely produce more versions of his work.

The significant fact is that Hostos was an author. His work persists largely through his writings. We cannot celebrate his accomplishments and explore his ideas without reading his work. It is up to us, teachers, to make sure that our students have the opportunity to read Hostos—critically, as he would have liked. Early on, this faculty-led initiative set the integration of Hostos's writings into our courses as one of its important goals. We are doing this by providing resources for teaching and for sharing classroom experiences, along with whatever other options will enhance learning. We have called it "Teaching Hostos at Hostos."

During the 2014 spring semester, no less than 25 different courses had students reading, studying, and discussing works by Hostos. We hope the number will

increase in Fall 2014.

For several months, a group of devoted Hostos Community College faculty from various disciplines and departments met as an advisory committee, to put together a celebration worthy of our mission. Prof. Ernest Ialongo is co-coordinator with me in this endeavor. From the outset, we were committed to the idea of a celebration that sought to engage both our academic community and the larger community, both by offering opportunities for students and faculty to participate and to play an active role, and by inviting community leaders and educational institutions to be part of it.

The result is HOSTOS 175, a year-long series of events and activities that include a lecture series, forums, theater and musical performances, an essay contest, readings of his work, several publications, and an international scholarly conference

that will take place in November of this year.

Hostos's ideas and legacy have clear implications for our thinking on contemporary issues, among them: the universal recognition of rights—as Hostos would have seen it, based on science and on the fundamental equality of all people, of all ethnic origins and gender preferences; full acknowledgement of women's social and economic contributions, which should lead to equal pay for equal work; quality education, including pre-kindergarten, for everyone; a humane, restorative penal system—an issue that he discussed; Latin American and Caribbean integration—which he strongly advocated; self-determination for his native Puerto Rico—for

which he fought throughout his lifetime. If this reads like a progressive agenda, indeed Hostos was a progressive social thinker and educator. His legacy is about

empowering and enfranchising people.

So let the Hostos 175th Anniversary Celebration speak for what Hostos Community College stands for. Let it speak eloquently, enthusiastically, and beautifully for who we are. We invite everyone to be part of it.

## COMMUNITY ARCHIVES AND AUTONOMY: MEETING THE CHALLENGE TO PRESERVE VITAL RECORDS OF THE COLLEGE AND THE COMMUNITY

### William Casari

Hostos began life in 1968 as Community College Number Eight, fought for and demanded by Puerto Rican community members and local elected officials who felt the higher education needs of the South Bronx community were not being addressed by mainstream colleges and in essence, the whole of the City University of New York. At its founding, Hostos served primarily a Puerto Rican and African American student body. Classes began in fall 1970 and were held in a renovated tire factory on the Grand Concourse. The decade of the 1970s proved to be a challenging time for the college and for the Bronx itself. It is a story of survival and resurgence and one that must be preserved and told again and again for future generations.

In this article I would like to flesh out a discussion started at an Archivists Round Table of Metropolitan New York meeting while bringing in finer points specific to Hostos that have been discussed at the Hostos Archives Advisory Committee. I will argue that Hostos must take a broad and in-depth view toward collecting records that document not only the college but the South Bronx community that created and fought for it. Hostos must plan a broad-based documentation strategy that incorporates the diversity of the local area and one that meets the changing demographics of the college as reflected in the community. This effort aligns with the Hostos Strategic Plan and requires a deep commitment from the college. While Hostos still serves a large immigrant and minority community, the mix of ethnicities and the neighborhood have changed markedly since 1970.

In 2004 the college received a New York State Archives Documentary Heritage Program Grant to document the first ten years of the college's existence, which in turn sparked a more formal conversation about documenting the college and the community. While additional grants were secured to process and provide access to specific collections like the Museum of Contemporary Hispanic Art and the Magda Vasillov Collection, many questions were raised about how thoroughly records were being kept of the community, disparate college departments retiring

faculty members, and staff.

Is Hostos and the surrounding community that created it being thoroughly documented? Though Hostos has a small and vital archival collection, are we meeting the challenge of preserving permanent records of the college and the surrounding neighborhood? What is the responsibility to document and preserve the history of this unique South Bronx community college that defied the odds to stay open in the 1970s and, like the Bronx itself, has made a huge resurgence today? With these issues in mind, what are the options going forward for the future growth of the collections housed at Hostos? These questions reveal it's time to take a look at the bigger picture of non-mainstream archival collections, set against the backdrop of the community that created them, to thoroughly chart a broader collecting strategy

that represents our diverse community and college.

With repositories like the Center for Puerto Rican Studies at Hunter College, The Dominican Studies Institute at City College and some emphasis on archival collecting at most CUNY schools, it may seem that the recent past has been well preserved with regard to local college and community documentation. While some time periods and areas are well documented, gaps exist. Whose history is being documented and who is left out? Going forward, archival advisory committees, community groups and faculty and staff can evaluate what gaps exist and what voices are missing from the archival record at the local level. Many associate college archives with college records only, like yearbooks, minutes and photographs; however, archivists and librarians cannot forget the communities they serve. This is the call to be mindful and recognize what vital archival records non-profits, churches, performance centers and alternative spaces may have. For example, this collecting strategy could be in relation to Latino/a records or documentation of the broader mix of ethnicities and groups in diversifying New York neighborhoods like the Mott Haven, Melrose, Morrisania and Grand Concourse neighborhoods that border the college.

Let's take a careful look at current literature on community-based archives and autonomy to better understand the issues raised above and illustrate how the

college can proceed.

In the case of documenting regional Latino arts, culture and community the call for archivists to collect documentary evidence of minorities and other historically marginalized groups remains largely unanswered according to two archivists who studied the issue in depth and have extensive experience in Latino Studies, Latino Art and media, and teaching in community-based archival practice.

Tracy Grimm and Chon Noriega examine the topic in a recent American Archivist article. Grimm and Noriega assert: "With the exception of a relatively few specialized institutions and dedicated programs, the identification and preservation of Latino archives are not keeping pace with the nation's fastest growing and increasingly geographically dispersed population." (95). The authors argue that a shift in acquisition policies and collecting strategies were needed to record the history of immigrant and minority communities. As a result of this shift, much literature began to appear in the 1980s that dealt with identity, ethnicity and the role of the archivist (96). More than forty years after this emphasis the push to document historically marginalized groups remains a challenge. "This is particularly true in the case of Latino archives for which few case studies have appeared to provide practical models" (96).

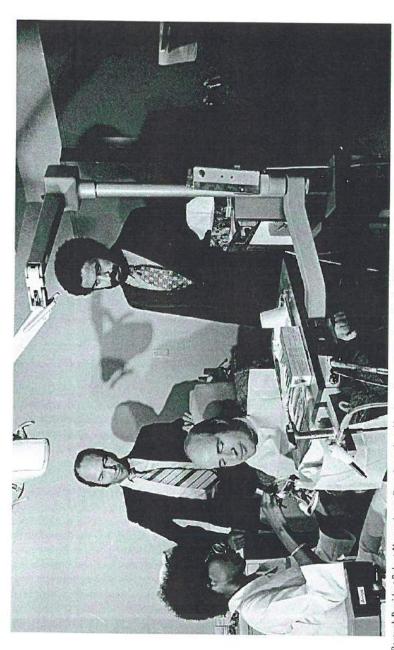
The authors go on to argue that the Latino community has undergone large geographical expansion and now reaches far outside traditional gateway communities like New York, Chicago and Miami. Latino history is being made in many new places across the country and on a completely new scale (97). In this sense diversity initiatives need to be much more broad and meaningful to truly represent community members and the institutions that reflect them.

These statements may come as a surprise to those who may think that because our college has an archive, all areas are being represented. Many smaller institutions do not have administrative capacity or storage space to reach out more broadly to the local community and take in their records. Some collections like the Gerald J. Meyer Collection at Hostos may be completely appropriate considering Hostos's collection development guidelines; other collections may be less useful based on future research value and interest to the community. However, many donors feel their records are important and need a permanent home. Finding the right fit for both donor and the collecting repository is important because many donors rightfully feel their records, like a local music collection, belong in the neighborhood where the music was created and performed. Therein lies the rub: How can archives be most inclusive of the community while collecting the most appropriate records future researchers may want to consult and create from? This will inform a future generation of scholars based on what material is available to research. It is often difficult to refuse a collection from an influential community organization or member even though it may not fit well with the collection development policies of the archive.

Even though Hostos has a strong base of collections, how can our holdings more thoroughly represent the South Bronx Community? Writing in an American Archivist Perspective article Rabia Gibbs recommends that to make diversity initiatives more authentic and meaningful, "we must set aside our assumptions, examine the diversity within diverse groups, and modify our objectives to incorporate the full range of perspectives available with these respective communities" (204). In the context of Hostos this will go beyond simply the records of the college, which are not complete, and move into more broadly representing the people and organizations in the neighborhood. One suggestion made by an archives advisory group member is to create a South Bronx Urban Institute that will incorporate diverse collections from the community and by housing them at Hostos, will create a locally based research center.

With this concept of broader inclusivity in mind it is important to recognize the singular place Hostos holds in the neighborhood. While parts of the South Bronx were burning in the mid-1970s, Hostos was alive with teaching, educating hundreds of students and providing a counter-narrative to the destruction happening in Bronx neighborhoods. As the worldwide reputation of the South Bronx came to be so notorious, Hostos stood tall against the headlines and bad news infiltrating the Bronx during a turbulent time. These strong ties to the community are only strengthened through archival collections, oral histories and other evidence preserving what happened since the college's founding in 1968.

Donors of archival collections may often be faculty and staff of Hostos, but community groups and other local organizations reach out to local repositories as well, knowing they may be better able to care for records long term. As part of a New York State Archives Documentary Heritage Program grant, Hostos performed



began offering free dental services including cleaning, examinations and x-rays to all members of the community. Magda Vasillov, photographer. Magda Vasillov Collection, Hostos Bronx Borough President Robert Abrams (seated) receives a dental hygiene demonstration from Wendy Wallace, who in August 1972 would become the first graduate of the Dental Hygiene Program. Looking on are Dr. Cyril Price, Dean of Health Sciences (left) and the second President of Hostos, Cándido de León. In spring 1972 the newly opened dental clinic Community College Archives/ The City University of New York.

a community survey of important local records in 2006. While several important local collections were identified, Hostos lacked the space to house any new materials. Made clear during the process was the fact that donors wanted their records stored in a secure place, accessible to those in the neighborhood—in essence—by the community and for the community. In this way the collections remain a part of the community and can function as a community resource. For instance, researchers may visit the collections without leaving their local area or travelling far away to visit a governmental repository like the National Archives. Often times if records are separated from the community of origin they are not as widely consulted or are seen through the filter of a mainstream organization. Digitization and online access may help mitigate required travel but eventually most serious researchers or writers need to physically visit the collections they are studying and consult with the archivist. Additionally, many collections are only partially digitized and may not have been made available through a content management system or online archival finding aid.

Shaunna Moore and Susan Pell present a convincing argument that repositories should be located in the community that created the records; in essence, they should be housed in the place the records came from. In other words, Hostos Community College must control its records and be able to tell its own story, rather than having the records stored "downtown" in a mainstream institution. In "Autonomous Archives" the authors present conceptual frameworks for archival

collections:

The preservation of archives is a highly political work of memory. In providing proof of actions, words and deeds carried out by governments, politicians, social rights advocates, concerned citizens and community groups, archives are crucial to the struggle to define social contexts and hold those in positions of power accountable (255).

Not only do archival collections help establish public opinion while preserving a record of what happened, through their constitutive and relational capabilities archives act as spaces for public formations...as they bridge how people may con-

struct the past and imaginations for the future (256).

This interaction line of thinking becomes very important as time passes. Retirements and changes in administration force us to ask "who and what is left to tell the story or provide documentation?" While the history of Hostos is really quite recent, only beginning in 1968, do our archival collections represent the story of the last 46 years or only part of it? And whose voices are included in the collection for a future researcher who may want to reconstruct what happened? In some cases collections represent those who actually kept documents as events happened the thus preserved that part of the story. A prime example is the Gerald J. Meyer Collection at Hostos which heavily documents the 1970s and 1980s at the college including photographs, flyers, and the heavily used "Save Hostos" materials which preserve the records of demonstrations waged to keep the college open. In this sense the collection was created by, about and for the community and is preserved in the location where the events transpired. Most students were Bronx residents at that time. However, collections of other faculty members and community residents from that time period at not part of the repository, perhaps because they don't exist or perhaps a more thorough community documentation survey needs to be undertaken



Students smile after graduation. The first Hostos commencement ceremonies were held in the Cardinal Hayes High School Auditorium on June 13, 1972. Hostos President Candido de Leon conferred degrees on 152 candidates. Maria Josefa Canino, member of the Board of Higher Education, was the commencement speaker. Magda Vasillov, photographer. Magda Vasillov Collection, Hostos Community College Archives/ The City University of New York.

20 Touchstone

immediately. Hostos cannot afford to lose the collective memory of the recent past. We must act collectively now!

Moore and Pell assert that many groups have taken a stronger role in forms of grassroots archival practice aimed at documenting the heritage of those on the peripheries of society, largely without the intervention of outside entities (257). Practices typically associated with "community archives" have gained more importance and visibility in recent years. Particularly those include archives throughout the world documenting the histories of particular ethnic groups, and gay and lesbian organizations. "Some view these practices as methods of political contestation and resistance against dominant social and cultural narratives. Others looking at archives that arise from groups with a common interest or within a particular geo-

graphical region, present them in a more neutral light" (257).

Within this conversation is the importance of place in the community. It can be argued that by locating Hostos at the prominent corner of 149th and The Grand Concourse in the South Bronx, the Puerto Rican community members and local officials were sending a strong message about the importance of place. Located directly above three subway lines and across the street from the New Deal era Bronx General Post Office, this was a location that spoke to the importance of the college's mission and of place within the community. And that the college's namesake, Eugenio María de Hostos, was a 19th Century Puerto Rican scholar, educator and author further underscored the importance of this undertaking, and its roots outside the mainstream CUNY college experience in the 1960s. "By connecting stories of past experiences to present localities, public histories give places meaning. This connection to place affects the relationships between community members, their sense of responsibility for their environment and, ultimately, collective memory" (Moore, Pell 260).

Readers may ask themselves how a nearly abandoned corner reinvents itself and creates life anew. Across from the rehabbed tire warehouse where Hostos rented classroom and administrative space stood the abandoned Security Mutual Insurance headquarters building at 500 Grand Concourse. Built only a few years before Hostos's founding, it was vacated by the company when it moved to Connecticut in the late 1960s. On this changing corner where restaurants, bars, the post office and a gas station still existed, what sense of community cohesion began to take over when Hostos moved in and established a foothold?

The development of a collective sense of place many times involves struggles between (and within) various groups and perspectives with different understandings of the same place, (Glassberg 1996). These shared perceptions perform a crucial function in community cohesiveness and identity. This was clearly true at Hostos during the tumultuous 1970s when Hostos was faced with closure via a merger with Bronx Community College, then saved with a last minute act of the New York State Legislature. Who "saved" Hostos and the involvement of multifarious groups with different agendas is still a discussion point today as the college approaches its 50th anniversary in 2018.

When thinking about diversity within the community and possible political implications coupled with changing demographics, gentrification, new businesses and non-profits all set against the backdrop of a college with a rich history of protest, it's best to strategize how these disparate factions might be documented.

"Documentation of such understandings in texts often forms the basis for the establishment of archives. The archive is then central to the relationship between place and discourse, and the ways in which these coalesce as resources for the formation of emergent publics" (Moore, Pell 260). Creating a centralized place to keep the college history and its neighboring community records thus becomes paramount in

preserving what occurred and gives the public a place to research it.

Some would argue that the Hostos Archives are in fact already part of a mainstream institution, CUNY, and by accepting government funding for processing and surveying collections makes it not really a "community controlled" archival enterprise. What voice do neighborhood residents have in telling their story or guaranteeing its preservation? How independent is the identity of the archive from the controlling hand of the administration? While these are compelling questions the very existence and struggle of Hostos challenged the mainstream itself and the fact that Hostos still operates is a victory against the status quo! In that sense Hostos very much belongs to the community that created and fought for it. To have someone else in another place tell or preserve the story is unacceptable.

In "Whose Memories, Whose Archives? Independent Community Archives, Autonomy and the Mainstream," the authors describe grassroots projects and initiatives that have been created to record and preserve the memories and histories of different communities that are often under-voiced and under-represented within the

mainstream heritage. The authors state:

Most community archives offer an important and empowering assertion of community resistance to otherwise exclusionary and (often) marginalizing dominant narratives. They offer mainstream heritage institutions not only a reminder of their obligation to diversify and transform collections and narratives but also perhaps the opportunity through equitable and mutually beneficial partnership to

achieve some of that transformation (Flinn, Stevens and Shepherd 83).

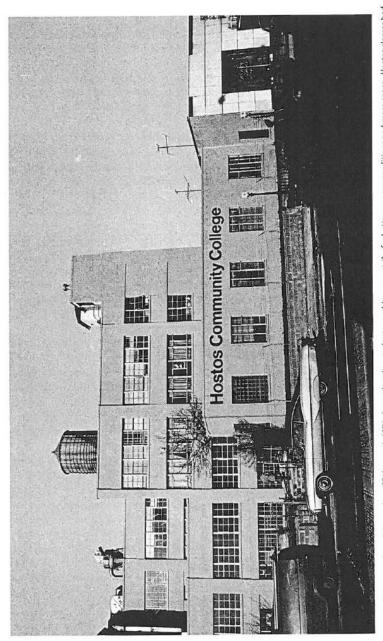
Stewardship of archival collections within the community is important and partnering with other organizations may be necessary or crucial for the continued existence of smaller archives. While this may not be a pressing case for those collections supported by CUNY-affiliated colleges, smaller collections that still remain with their parent organizations, like churches or non-profits, are at risk of being lost completely. One example is the Melrose-based Nos Quedamos (We Stay), a development group whose longtime leader, Yolanda García, was arrested for stealing from the group. While Nos Quedamos participated in the 2006 Hostos documentation survey, its records remain with the non-profit and are in danger of being lost or destroyed. During times of transition or office space changes it's easy for records to be misplaced or simply left behind

Cristine Paschild argues that for institutions dependent on private or other funding sources, "very often the solution to remaining viable is through a clear definition of mission. Institutions that identify a core function are better able to seek funding strategically and allocate resources effectively" (138). She cautions against identifying the archives too closely with one ethnicity while leaving others in the

"community" behind.

The demographics of Hostos have changed from primarily a Puerto Rican and African American student body at its founding to one, in 2014, that is largely Dominican, West African and Mexican. These groups attend Hostos in record

22



begun the previous September in the 475 Grand Concourse building, a rental space that previously housed a tire factory. After passing through a courtyard enclosed in barbed wire, students and faculty entered the building through a single metal door. Magda Vasillov, photographer. Magda Vasillov Collection, Hostos Community College Archives/ The City University Hostos Community College on the quiet morning of February 1, 1971. Later that day students would wage a strike for better campus conditions and more space. Hostos classes had of New York.

23

numbers. The activity, campus and social life happening around these communities must be documented along with college life. Hostos has the responsibility to document the diverse communities it draws from as mentioned in its original mission and founding. Also, the local community is mentioned prominently in recent college publications. The "grounding elements" of the 2011-2016 Hostos Strategic Plan state the following:

Hostos Community College is determined to be a resource to the South Bronx and other communities served by the College by providing continuing education, cultural events, and expertise for the further development of the community

it serves. (Hostos Strategic Plan 1).

The goals of the strategic plan can be enhanced by engaged, community focused archival initiatives that could include a survey, outreach events where the various community groups feel included and are made aware of how preserving vital documents can create historical memory. These activities can be implemented to directly support the strategic goals of the college.

Hostos values are further elaborated in the plan under Community Building

item #6:

We believe our college's primary strengths are embedded in our diverse, multicultural, and historic community roots. We are inspired by our community origins and our mission, and seek to embrace its spirit each day. (Hostos Strategic Plan 1).

Goal Area 2 of the document specifically addresses campus and community leadership in that Hostos will nurture the leadership capacities of its employees and Bronx Community Organizations so they can better engage as active members of

their neighborhoods and communities. (Hostos Strategic Plan 37).

Since the importance of the local community is so strongly expressed in the college strategic plan, the college is poised to strengthen the archives going forward. Identifying storage space for collections so that college and community-based records can be accessioned and processed is necessary. Working with other Bronx CUNY colleges and the community to provide full-time access to our valuable resources and developing a strong program of integrating primary sources on college history and the history of Eugenio María de Hostos into the curriculum would help promote the archives and library's rich collection of materials.

As a public institution, Hostos has the resources—both technical and personnel—to support a highly diverse archival program that embraces and reflects the community that is so important to its development. Lastly, as a public institution with such a history of community relations and support, the development of an extensive archives repository is essential for maintaining a historical memory of how the college came into being through popular political struggle that demanded a public institution perform its democratic obligation to be accountable to all—no matter their race or class—and not just a few. This speaks to the heart of Hostos Community College and to the ideals of our namesake Eugenio María de Hostos.

#### **WORKS CITED**

Flinn, A., Stevens, M., & Shepherd, E. (2009). Whose memories, whose archives? Independent community archives, autonomy and the mainstream. *Archival Science*, 9(1-2), 71-86.

24 Touchstone

- Gibbs, R. (2012). The heart of the matter: the developmental history of African American archives. *The American Archivist*, 75, 204.
- Glassberg, D. (1996). Public history and the study of memory. *The Public Historian*, 19(2), 7-12.
- Grimm, T. B., & Noreiga, C. A. (2013). Documenting regional Latino arts and culture: case studies for a collaborative, community-oriented approach. *The American Archivist*, 76, 95-112.
- Hostos Strategic Plan. (2011). Hostos strategic plan: rooted in our mission, our compass to the future 2011-2016. Hostos Community College of the City University of New York. Bronx, NY.
- Moore, S., & Pell, S. (2010). Autonomous archives. *International Journal of Heritage Studies*, 16(4-5), 255-68.
- Paschild, C. N. (2013). Community archives and the limitations of identity: considering discursive impact on material needs. *The American Archivist*, 75, 125-142.

## MAGDA J. VASILLOV

## Matthew Flaherty

Magda J. Vasillov was a photographer, art historian, and teacher who made her career at Hostos Community College. Vasillov was one of the few original em-

ployees who remained with the college into the 21st century.

After graduating from Wellesley College in 1955, Vasillov studied at the Institute of Fine Arts at New York University, during which time she was selected for a research assistant position under renowned Art Historian Walter Friedlander. Vasillov left the Institute of Fine Arts before completing her degree; in 1958 she married professional photographer Bill Vasillov. In the immediate years that followed, Vasillov gave birth to three daughters—Natasha, Susanna, and Marya. Shortly after the birth of their third child, Vasillov's husband suffered a heart attack and passed away, leaving her as sole provider. Vasillov returned to the Institute of Fine Arts in 1974 and earned her graduate degree in 1980.

While at Hostos, Vasillov served the college community in many different capacities. In 1970, Vasillov initially worked as the college's photographer and graphic designer in the media unit of the library. In 1973, she was appointed Lecturer in the Visual and Performing Arts Department and received a Certificate of Continuous Employment in 1978. In 1981, she was appointed Assistant professor in the Visual and Performing Arts unit of the Humanities Department. In 1984 she received tenure as Assistant Professor by way of B.H.E Equivalency. Finally, in 1994, Vasillov received a full Professorship in the Humanities Department, after two and a half decades of service to the college community. During her long teaching career at Hostos, Vasillov mainly taught Photography and Arts and Civilization courses.

Vasillov participated in college activity throughout her decades of service. Her contributions to the college community included: Visual and Performing Arts coordinator; Hostos Art Committee chair; Aids Task Force member; Liberal Arts Sub-Committee of the Curriculum and Instruction Committee chair; Language Integration Task Force, Hostos Senate liaison; and Hostos College Senate member. As chair of the Hostos Art Committee, Vasillov and committee members

recommended three commissions to celebrate the opening of the East Academic Complex, including a wall-hanging for the Allied Health complex atrium, panels in the East Academic Complex plaza gates, and a large metal sculpture on the south facade of the 500 building.

Vasillov was also a lively scholar. She participated in various lectures and exhibits; most notably, she was Guest Curator of a show entitled, "Photographs Collected by Charles Darwin for His Study of the Expression of the Emotions," at Cambridge University in England. She published several scholarly articles and delivered a conference lecture based on the project at Soprintendenza al Museo

National Prehistoric Ethnographic "L. Pigorini," in Rome, İtaly.

Vasillov also took time from her busy schedule to volunteer at Memorial Sloan Kettering Cancer Center. As a Chaplaincy Volunteer, Vasillov helped AIDS in-patients attend religious services at the hospital's chapel. According to Vasillov's Curriculum Vitae, her volunteer service at Memorial, "...derives directly from her commitment to Hostos and its deep concern for AIDS and its devastating effects on our community."

Throughout her long and fruitful career, Magda Vasillov never stopped identifying as a photographer. In fact, she took on numerous photography jobs with various organizations as a freelancer and consultant throughout the years. Her passion for photography is evident in the thought, care, and perspective that went into each image she captured. Her Hostos photograph and negative collection, on deposit at Hostos Archives, exemplifies her life-long passion for the medium.

At Hostos Community College, Vasillov was respected and beloved by her colleagues and the college community. In 2006, the college Senate voted to name the Center for Teaching and Learning, "The Magda Vasillov Center for Teaching and Learning," in memory of Vasillov's long successful career at Hostos. The center was dedicated in January of 2007, two months after her passing.

## THE EVOLUTION OF E-LEARNING

## Tonina Aragona

The advancement of e-learning has made a huge impact on education. It has given many students an opportunity to access education despite distance and busy lifestyles. However, it is still important for online instructors to understand how adult learners acquire knowledge. Instructors should set high standards that ensure a great quality education and academic success for all learners. One way to achieve these goals is to understand the learning theories that best target the learning needs of the online learner.

#### LEARNING THEORIES

For centuries, psychologists and educators have researched learning behaviors in animals and in children to improve learning. Many learning theories have evolved throughout time by continuing to improve and transform the learning process. In the 1970s, the focus moved from studying the learning behaviors of children to those of adults when Malcolm Knowles introduced his theory of andragogy (Knowles, Holton & Swanson, 2012). The principles set by andragogy target the adult learner (Knowles, Holton & Swanson, 2012). Today, many adult learners are enrolled in online learning through distance education programs (Maeroff, 2003). Instruction in e-learning programs is primarily a combination of student-led instruction and multimedia instruction (Simson, Smaldino, Albright, & Zvacek, 2012). E-learners work independently but also have opportunities to interact and collaborate with fellow classmates. Andragogy supports the idea that successful adult learners learn best when they are self-directed, actively collaborating, and sharing personal experiences (Conrad & Donaldson, 2012). In adult learning, the roles of the instructor and student change significantly. The role of the instructor should become one of a facilitator and a mentor rather than a teacher or authoritarian figure. The role of the student should be of an independent and collaborative learner who interactively engages within a community of e-learners to identify and resolve problems (Burkle &

Cleveland-Innes, 2013; Conrad & Donaldson, 2012). Instructors should be knowledgeable, and guide and engage e-learners in achieving higher-order thinking skills. Most importantly, learning for adult online learning programs must be purposeful and relatable to personal life experiences (Aderinto, 2006; Wang, 2012). Andragogy can assist instructors and adult learners in achieving e-learning success.

#### ANDRAGOGY

Knowles' theory of andragogy consists of "six main adult learning principles: (1) learner's need to know; (2) self-concept of the learner; (3) prior experience of the learner; (4) readiness to learn; (5) orientation to learning; and (6) motivation to learn" (Knowles et al., 2012, p. 3). Adult learner success can be achieved if instructors and learners are able to apply and embrace these principles into daily practices. Basically, adult learners must be self-motivated, eager to take on challenges, and capitalize upon first-hand experiences to overcome new obstacles. Adult learners are asked to begin a new way of thinking. Perhaps the theory of andragogy alone cannot satisfy the formula for the success of adult online learning. Andragogy may be structured upon the foundations of past theories and principles such as constructivism and connectivism (Conrad & Donaldson, 2012). Online learning should require a community of learners to create "interaction based on three presences: (1) social presence; (2) cognitive presence; and (3) teaching presence" (Swan, Garrison, & Richardson, 2009, p. 44). John Dewey (1959) developed an educational philosophy that united individuals within a community to learn and construct from each other's experiences. Dewey's collaborative constructivism is the basis for both synchronous and asynchronous online courses (Swan, Garrison, & Richardson, 2009). Online learning is also based on the theory of connectivism. Connectivism also suggests that a community of learners share resources to discover information and then expand knowledge (Kop & Hill, 2008). Constructivism and connectivism may be the theories that underlie the basis for andragogy. The three theories together present a movement away from the traditional instruction-led learning. Instead, the theories advocate a learning environment that helps learners transform the learning process by building the foundation for a life-long journey of problem-solving and self-discovery realization (Conrad & Donaldson, 2012). Perhaps, the understanding of the adult learning process is the key to success in the digital era.

#### CONSTRUCTIVISM

Constructivism has had a great impact on the creation of instructional strategies for online adult learning. A constructivist-based online course allows e-learners to set the pace and plan individual learning goals. In a constructivist-based online course, e-learners will also be required to engage in interactive assignments by working collaboratively with fellow classmates and lead online discussions by sharing ideas and reflecting. In a case study by Ruey (2010) that surveyed adult e-learners, many learners admitted they were new to online learning but had positive attitudes towards the new learning system. The learners had embraced the online interaction sessions and appreciated the instant responses and feedback by fellow classmates and the instructor. However, many of the learners felt that the interactivity was also stressful and put a lot of pressure on them. Many learners reported it was too

30 Touchstone

difficult for them to think and type quickly and simultaneously. However, learners did appreciate managing their own time and learning needs. The benefits of the constructivist-based course included the relationships and support systems built as a community of learners, and the transformations incurred from passive learners to more responsible independent learners. More importantly, the instructor's role from teacher to mentor created an e-learning culture that engaged, guided, and promoted higher-order thinking in e-learners (Ruey, 2010). An e-learning culture can be beneficial in establishing a conducive learning environment that instills the proper values for life-long learning.

#### CONNECTIVISM

Connectivism has also had a great positive implication on adult e-learning. Kop and Hill (2008) state that the "status of connectivism is of a learning theory for the digital age" (p. 1). In connectivism, knowledge is acquired through the connected network of learners who share and discover new information by interacting. Learners must be able to find and filter information. Learners must also be able to make decisions based on the newfound information (Kop & Hill, 2008). The theory suggests that the learning process is ongoing and learners must adapt to the changes by engaging in collaborative learning (Conrad & Donaldson, 2012). Connectivism requires learners to immerse in critical thinking and reflection in order to make connections. Connectivism is present in today's online instructional strategies through the role of the instructor as a facilitator and the role of the student as an independent learner who finds information and creates knowledge through interactivity (Kop & Hill, 2008). Learners are engaging with a community of learners from around the globe who can provide each other with new knowledge and rich personal experiences.

#### SUMMARY

Finally, andragogy has had a massive implication for online adult learning. Elearning, along with the theory of andragogy, focus on the learner (Knowles et al., 2012). E-learning has given many students the opportunity to receive an education despite distance and time conflicts. Online courses are being designed for the adult learner and andragogy has offered educators and instructional designers a suitable theoretical framework to build course work. Similar to constructivism and connectivism, andragogy views the learner as the principle goal and decision maker. The learner is in control and is directing the learning process. The instructor is present and knowledgeable but acts only as a mentor to guide, engage, and facilitate learning. Asychronous and synchronous online courses are perfect examples of where the learning theories can be implemented. Despite the learners' level of online experience, the instructor can promote higher academic achievement by allowing the learner to take control of the learning process. Together andragogy, constructivism, and connectivism have created online learning as we know it today.

#### **WORKS CITED**

Aderinto, J. (2006). An overview of selected theories of adult learning. International Journal of Learning, 12, 139-143.

- Burke, M., & Cleveland-Innes, M. (2013). Defining the role adjustment profile of learners and instructors online. *Journal of Asynchronous Learning Networks*, 17(1), 73-88.
- Conrad, R., & Donaldson, J.A. (2012). Continuing to engage the online learner. San Francisco, CA: Jossey-Bass.
- Knowles, M. S., Holton, E. F., & Swanson, R. A. (2012). The adult learner: the definite classic in adult education and human resource development. Burlington, MA: Elsevier, Inc.
- Kop, R., & Hill, A. (2008). Connectivism: learning theory of the future or vestige of the past? *International Review of Research in Open and Distance Learning*, 9(3), 1-13.
- Maeroff, G. I. (2003). A classroom of one. New York, NY: Palgrave Macmillan.
- Simonson, M., Smaldino, S., Albright, M., & Zvacek, S. (2012). Teaching and learning at a distance: foundations of distance education. Boston, MA: Pearson.
- Swan, K., Garrison, D. R., & Richardson, J. C. (2009). A constructivist approach to online learning: the community of inquiry framework. Information Technology and Constructivism in Higher Education: Progressive Learning Frameworks, 43-57.
- Ruey, S. (2010). A case study of constructivist instructional strategies for adult online learning. *British Journal of Educational Technology*, 41(5), 706-720.
- Wang, V. X. (2012). Understanding and promoting learning theories. *International Forum of Teaching & Studies*, 8(2), 5-11.

## USING IPADS AS CREATIVE TOOLS IN TEACHING PSYCHOLOGY AT AN URBAN COMMUNITY COLLEGE

## Azizi Seixas and Kate Wolfe

#### INTRODUCTION

Educators at the collegiate level, particularly at community colleges, are faced with the challenge of providing quality education to an increasing number of non-traditional students in a dynamic technological landscape (El Mansour and Mupinga, 2007). To meet this challenge, several innovative tools and strategies have been implemented in traditional pedagogies such as the use of partially online courses called blended or hybrid courses (Gerbic, 2011; El Mansour & Mupinga, 2007). Using mobile devices, such as the iPad, is an excellent step in the right direction, but it is a move that has advantages such as creating opportunities for more creative student-instructor engagement and disadvantages such as the level of comfort an instructor has with the technological tool. The authors participated in the iPad Initiative at Hostos Community College in order to update their teaching tools and add excitement, and creativity to psychology courses.

Our motivation to participate in the iPad Initiative was spurred by our recognition that the current state of affairs in community college education needs to change to meet the growing needs of a diverse and non-traditional student population (El Mansour & Mupinga, 2007). Today's students are younger and technologically advanced and therefore learning has to be creative, current and flexible. In our estimation, using innovative tools like the iPad provides a unique opportunity to satisfy these requisites.

However, any attempt to modernize the learning experience has to be squared with the growing academic under-preparedness of students at the college level. As faculty, we see students who possess varying academic challenges. Some students seem to lack appetite to learn and do the bare minimum required to acquire knowledge. Other students have difficulty maintaining an adequate attention span. Underprepared students may also not be able to discern between surface and deep knowledge, such as being fixated on regurgitating definitions as opposed to knowing how to apply knowledge (Biggs, 1999; Entwistle, 1988). Others may experience

problems with contextual learning (being able to understand content and context of knowledge) and knowledge transfer, what cognitive psychologist call situated and distributed cognitions (Borko & Putnam, 1998; Brown, 1998; Dirkx, Amey, & Haston, 1999; Imel, 2000; Putnam & Borko, 2000). Aliteracy (not having the appetite to use reading as the gateway to exploring new knowledge but instead using internet search engines to acquire and manipulate new information) may also plague some of our students (Beer, 1996; Ramsey, 2002). Amidst these challenges, today's students are driven, smart, creative, and resilient; they are ready to meet 21st century challenges. If our students are ready to meet these challenges, instructors ought to be ready as well, by augmenting our customary teaching toolkits to meet today's student.

### COLLEGE INFORMATION AND AUTHORS' BACKGROUND

Eugenio María de Hostos Community College is a two-year, public, community college within the City University New York (CUNY). Hostos was founded in order to meet the community demands for an educational institution serving the people of the South Bronx, who traditionally had been excluded from higher education opportunities. This was an historic first in the state, intentionally establishing a community college in one of the country's poorest congressional districts (OIRSA, 2013). Hostos's mission is to "offer access to higher education leading to intellectual growth and socio-economic mobility through the development of linguistic, mathematical, technological, and critical thinking proficiencies needed for lifelong learning and for success in a variety of programs including careers, liberal arts, transfer, and those professional programs leading to licensure" (Hostos Mission Statement). Hostos offers degree and certificate programs which include technical/career training and transfer programs. Student enrollments have grown dramatically over the past decade and students at Hostos are a diverse, multilingual group, representing 120 countries and 78 languages. Students are mostly Hispanic and Black and speak languages other than English at home. Our students increasingly represent generation 1.5, that is, children of non-English speaking immigrants. Many Hostos students enter with a GED or a non-U.S. high school diploma (OIRSA, 2013).

The authors both teach psychology at Eugenia María de Hostos Community College, a two-year, public, open admissions college within the City University New York (CUNY) system. Both instructors are in the Behavioral and Social Science Department and teach a wide range of psychology classes that require technologically advanced tools to meet the dynamic nature of our field, psychology. We were hired two years ago and have been involved with other technological innovations such as teaching hybrid and online courses.

Prof. Wolfe is a social psychologist with over a decade of experience teaching at all collegiate levels. Much of her experience has been acquitted through teaching at urban community colleges. She has taught many psychology courses over the years, most recently focusing on General Psychology, a course geared toward freshman students, and lifespan development, a course which enrolls many nursing and pre-nursing students.

Prof. Seixas is a clinical psychologist with over four years of teaching at the collegiate level in urban settings. He has taught a wide variety of psychology classes

over the years, and similar to Prof. Wolfe has recently focused on foundation psychology courses, such as General Psychology, which attracts students from different cultural and academic backgrounds and with diverse career pursuits.

#### THE IPAD INITIATIVE

The Hostos iPad Pilot Initiative was established in the Fall semester 2012 to provide faculty with the opportunity to explore the use of iPads for teaching across a variety of disciples (CUNY, 2011). The authors participated in this initial pilot and are again participating in another pilot currently being run to involve students using iPads in the classroom. Selected faculty, working in pairs, are loaned an iPad for the semester to use in their classroom. This arrangement facilitated faculty's ability to collaborate about ideas that enriched the learning experience for students. The iPad served as a conduit and a resource for the instructors and students alike, as it allowed: instructors to teach traditional and extant concepts in creative ways and students to gain a better understanding of difficult concepts and ideas.

We both found many applications ("apps") on the iPad that were useful in teaching General Psychology. One of the apps we found is called the 3-D Brain; we both used this app to teach an entire chapter on neuroscience. Students were shown a three dimensional picture of the brain, as well as the location and function of important sections of the brain. This could not have done in without the use of the iPad. For the sensation and perception chapter, we found a visual illusions app, Illusions for iPad, and the Stroop Effect apps that we used to demonstrate how our brain organizes perceptual information. These apps made teaching sensation and perception a lot more interesting, fun and interactive for both us and the students. Also, we found an app which illustrates different facial expressions corresponding to different emotions, Emotionx; we used this to have students identify a wide range of emotional expression which is an excellent addition to our motivation and emotion chapter. Overall, the iPad and the apps allowed us to make our pedestrian introductory course active and involved through constant stimulation and engagement; important factors in a community college like ours that does not have the resources of a psychology experimental lab to supplement lecture.

Moreover, we used the iPad in our advanced courses such as Developmental Psychology, Social Psychology, Abnormal Psychology, and Personality Psychology. Some of the apps we used were: Case Files in Psychiatry by McGraw Hill, Glyph, Personality Tests, Psychology Assessments, Brain Baseline and Article search apps. Of note, the Article Search app was one of our favorites because it gave us the most up-to-date research articles from two search engines—Google Scholar and Microsoft Scholar. We used it as a reference in the classroom to research journal articles, so whenever students had a question that we could not answer or needed more information to provide a more informed opinion, we would search for research articles in class to answer our questions. Through that modeling of active research inquiry, we found that students were no longer showing signs of aliteracy, as they read more and came more prepared to class armed with research articles to challenge ideas and concepts they disagreed with in the textbook. We felt that the iPad allowed our classes to reach the level of critical thinking, contextual learning, and deep and surface learning we had strived to achieve in previous iterations of these

advanced classes, based on the enhanced quality and quantity of in-class discussion and improved quality of critical thinking written assignments.

#### CONCLUSION

We strongly believe that the iPad serves as a great buffer for the academic risk factors we listed above by bringing out the protective factors and strengths of our modern day student population, such as being mobile/always on the go, creative and technologically savvy. Through our brief experience using the iPad in our classes we have identified three important functions of the IPad as a pedagogical tool. First, we believe that the iPad serves as a learning conduit by enticing students to access old and new knowledge that is usually buried in antiquated resources, such as the encyclopedia, old textbooks and old journal articles. Second, we believe that the iPad is a resources providing background information for students. Our students saw it as a repository for large textbooks that would have been left at home but instead are now finger tips away of being accessed. Third, we believe that the iPad extends the boundaries of the physical classroom to the boundaries of the World Wide Web, which gives students and instructors more space to play and see learning as fun and dynamic.

#### CHALLENGES, LIMITATIONS AND FUTURE PLANS

Our paper is aimed at two audiences: instructors who consider themselves either technophobes or traditionalists. Why? Because we find that these individuals have the most fervid opposition and apprehension about the iPad initiatives. We were motivated to write this manuscript to dispel myths and allay fears that faculty may have regarding technology use in the classroom, First, one of the myths we are constantly bombarded with is "do I have to change everything about my teaching style to accommodate the iPad?" Simply, no! The iPad is not a pedagogy, it is a tool. Second, one of the fears we often hear is "do I have to be techy or computer savvy?" Again, no! The iPad is not a platform, instructional delivery system or a learning environment, like Blackboard; it is a tool. And it is our belief that it can enhance an instructor's personal pedagogical styles and knowledge content through a more dynamic medium.

Even though our experience with the iPad had many highs, we encountered some challenges. First, we were challenged by the dynamism of technology and knowledge. Newer and better applications are being created daily, which can undermine the comfort we have in planning ahead of time a semester long curriculum. Second, we also felt that the cost of the iPad as well as application can "break the bank" of a nominal instructor's budget. Third, we felt that technical issues such as Wi-Fi access and capability could thwart the excitement of an excellent in-class activity. Last, being comfortable with the technological tool could be a challenge, although the minimum level of technological competency is pretty low, and instructors could design their classes to their proficiencies.

#### **FUTURE PLANS**

We acknowledge that the anecdotal style of our paper has advantages and limitations, and so we plan to assess the effectiveness of the iPad as well as to

investigate whether the use of the iPad translates into better test student scores and overall academic achievement and success. We would also like to investigate how the use of the iPad affects non-academic factors such as attitude toward learning and metacognitions. With students' increasing familiarity and comfort with iPads and other like devices we hypothesize that there would be an increase in student interest and motivation to learn difficult topics like neuroscience. It is possible that putting iPads in the hands of students with instructor driven presentations would allow some feelings of greater control among students and facilitate learning of the subject matter by students with a kinesthetic learning style. The authors are currently involved in an initiative from Educational Technology that provides iPads for students so stay tuned for the results from that informal trial. We acknowledge that more empirical research needs to be done to establish gains from using iPads for faculty and students. These future studies can help clarify whether the gains are in the form of better test scores, greater interest in content and learning process, or greater motivation among students.

#### REFERENCES

- Beer, K. (1996). "No time, no interest, no way! The 3 voices of aliteracy." School Library Journal 42, 30–33.
- Biggs, J. (1999). Teaching for quality learning at university. New York, NY: Open University Press.
- Borko, H. and Putnam, R. T. (1998). The role of context in teacher learning and teacher education. In contextual teaching and learning: preparing teachers to enhance student success in and beyond school. Information Series No. 376.
- Brown, B. L. (1998). Applying constructivism in vocational and career education. Information. Series No. 378. Columbus: ERIC Clearinghouse on Adult, Career, and Vocational Education, Center on Education and Training for Employment, College of Education, (ED 428 298).
- City University of New York. (2011). Edtech services for faculty. Office of Educational Technology, Hostos Community College.
- Dirkx, J. M., Amey, M., & Haston, L. (1999). Context in the contextualized curriculum: Adult life worlds as unitary or multiplistic? In Proceedings of the 18th Annual Midwest Research to Practice Conference in Adult, Continuing, and Community Education, edited by A. Austin, G. E. Nynes, and R. T. Miller.
- El Mansour, B. & Mupinga, D. M. (2007). Students' positive and negative experiences in hybrid and online classes. *College Student Journal*, 41(1), 242-248.
- Entwistle, N. (1988). Styles of learning and teaching. London, UK: David Fulton Publishing.

- Gerbic, P. (2011). Teaching using a blended approach:nwhat does the literature tell us? *Educational Media International*, 48(3), 221-234. doi:10.1080/09523987.2 011.615159
- Hostos Mission Statement. (2014).
- Imel, S. (2000). Contextual learning in adult education. Practice Application, 12, 100-101.
- Office of Institutional Research and Student Assessment (OIRSA). (2013).

  Continuous improvement matters: Institutional assessment plan for Hostos
  Community College 2013-2017. Bronx, NY: Office of Institutional Research
  and Student Assessment, Office of the President, Eugenia María de Hostos
  Community College, The City University of New York.
- Putnam, R. T., & Borko, H. (2000). What do new views of knowledge and thinking have to say about research on teacher learning? *Educational Researcher*, 29, 4-15.
- Ramsey, J. (2002). "Hell's bibliophiles: The fifth way of looking at an aliterate." Change, 34, 50-56.

# LETTER TO BLACKBOARD

# Sherese A. Mitchell

Dear Blackboard:

I wanted to express my sincere gratitude for the countless lessons you have provided during the last six years of my teaching career at Hostos. Without you, the refined craft of my online teaching would not have been possible.

Initially, I was the hesitant educator who ran from change in the area of technology. Why? I had no idea who you were. Fear of the unknown is all too common in our society and I allowed that fear to get the best of me. As I look back, I realize I should have taken the time to get to know you sooner without passing judgment.

Our relationship began when I was asked to nourish you by uploading my course syllabi to your very existence. Without me, you were an empty shell. So, you are welcome. Surprisingly, it was not a difficult task. In fact, every semester that followed, I continued this practice as I helped you grow. From there I began to upload course documents and Power Points to the site. Students were able to access course documents at their leisure. Individuals who were absent were able to keep up with the class. In addition, when documents were misplaced, they were easily recovered. This empowered students to be responsible and accountable for their learning. As for me, because students were able to remain on task, it made my job much easier.

I was feeling real good about the baby steps that I had taken in our relationship. This good feeling encouraged me to become more ambitious incorporating technology into my life. I even bought an iPhone and iPad to your dismay. In purchasing the iPad, I joined Hostos' initiative and experimented with many other colleagues who too were in their beginning stages of technology education. I felt even more empowered and supported.

Next, I experimented with your communication tools. At times there were stimulating classroom conversations that had to end, but this instrument allowed discussions to continue. I offered this optional enrichment, and found many students wanted to be a part of those conversations via your unique element—the discussion board. How clever! This feature even allowed shy students to come forward

and share their views. In the hybrids that I was teaching, this aspect allowed me to have the best of both worlds. Students were now able to share in and out of class in larger quantities. I was feeling very optimistic about my progress and even more hopeful for what the future had to offer.

Shortly thereafter, I decided to join EdTech. I felt even more connected because I had become a part of an ongoing conversation about you. Connecting to colleagues from other disciplines allowed me to realize I was not alone and there was

strength in numbers.

What I will disclose next will probably amaze you, but I know our friendship can withstand this information. I was never a text, or technology person. The flip phone was very comfortable to me while everyone else was swiping and discovering information instantly. I never wanted you or any form of technology in my life because I was comfortable. You know how it goes, "If it is not broken, don't fix it." But I can say honestly, "it" (my teaching) was kind of missing something. You have brought so many students together. In addition, you have helped me to interact with students who were lost in the classroom. You helped them break free from fear of showing others who they were. I have been introduced to so many students through you. When students shared their thoughts on discussion boards and blogs, it was very empowering. It was even more validating for them to see their peers agree with them. Not only have you helped them break free, but you saved me! You rescued me from that one-note thinking that a routine is the way of the classroom. Yes, routines and structure are good. However, going with the flow and the times have served me much better. I will never forget the many gifts that you have provided. Thank you for your patience as I struggled to figure you out and your acceptance of me as a learner. I will be by your side throughout your many versions. Everyone goes through changes. You have taught me change can be very good. I am grateful for you Blackboard and your father "technology". I know who you are now because I took the time to get to know you. You have enriched the lives of my students and my life as well.

In gratitude,

Dr. Sherese A. Mitchell

# **BRONX LATIN**

## Andrew Hubner

Vete al norte con el chico si me muero.

Like he knew running dope couldn't last. Bride Toledo walked away from the Bolivian árbol del bosque, mountain water trickled wet, her dark ancient fathers rockface 1000 year highland village choked of thirst.

The paper bag in place of husband boots: Boliviano pesos, Brazilian and

Mexican, Yankee dollars stuck together with dried blood.

Esme washed the soiled money, dried the bills in the sun like fruit, or the ears of a dead rabbit.

In festival across the border in Peru she wandered Inca Inti Raymi revels. Fires burned gutters. Little bits ash danced in flames sparkled daylight.

At Plaza de Armas, holding her son's hand, a passing unicyclist offered white

and purple lilies.

Shadow great, ancient Hall of Justicia de los Conquistadores. A tall, shady willow trees mark olden crossroads. Nauseous and bent weeds. El chico's mysterious half-smile, bellybutton stuck out t-shirt. Headlights lurched to a stop, she called.

¿Vas por el camino?

Si

Running water sienna alimañas of the tall grass. Hawks and crows hung low over old roads, the ancient migration route and each driver, whether out of respect to her husband or just the ancient rites of manhood and war, passed her off as if carrying out a sacramental duty. Sunsets in spectacular Goya paintings; sunrises bought the red sleepy eye of God up over the mountains. She kept walking until she got to us. She was on her way here. None of us knew that we were waiting for her and her children here at our humble college in the Bronx, but God did.

The Lecturer heard the birds late on a Friday. He had stayed out, first in a Harlem bathhouse on Madison Avenue and later in a crack hotel on Park. He left the stem on a windowsill and walked from the dingy room. The sun melted through the rip in the curtained window, and the Metro North train rattled the wood frame of the hotel.

The men and women the Lecturer had come with were still smoking. He had performed abominable acts through the night with them.

The blinding sun and the noise of the train shielded his exit from notice; our Lecturer was invisible. He feared for his life.

He needed air, and the oxygen in that bare dingy room was toxic with hours of smoke, sweat and the heady fumes of self-immolation.

The Lecturer walked to the #4 subway at 125th Street and Lexington Ave., descended the stairs and stood dazed by the turnstile.

Under the helpful gaze of a uniformed policeman, he found in his pocket, a wad of crumpled, soiled dollar bills.

Who can say how many hands and in what manner the bills had passed

through?

The Lecturer tried to synchronize the beats of his heart and his breath with the multitudinous footsteps of the rush hour commuters. Thousands passed in either direction.

Four and a half dollars to an agent behind a bulletproof window produced a cardboard ticket.

It seemed utterly miraculous to our distinguished Lecturer that one swipe of a computerized stripe through an alloy metal detection system would result in safe passage.

The northbound train ascended from a dark pit in Manhattan bedrock to the elevated station at Kingsbridge Avenue, where the Lecturer debarked, descended the old wooden stairway beside the castle armory and stood rapt under a cacophony of starlings.

Just as such birds might fill a stand of trees to call after the setting sun, near a

highway in Indiana or Nebraska, in the great American afternoon,

Here had they come and filled the old wooden rafters of the elevated train station, hundreds of oil black birds with their beaks wide open over their starred breasts, calling to the setting of the great God sun. The beating of their wings lifted his heart.

The brick façade of the old Kingsbridge armory fills an entire block.

For every single little child that passes, it rises as a castle filled with knights, tall horses and pretty damsels.

In the South Bronx redemption is possible every day. Like a five-cent plastic bottle, we are saved by strangers from trash bins and filled anew.

Once his Grandfather Tremont drilled in the great hall, hopeful, proud and

returned from Somme,

A wrecked witness of the carnage not redeemed by the poetry that elevated war to myth, who 25 years later sometimes wandered outside looking for the soaring heart he had lost and empties to trade in to quench the voices that called to him in haunted sweating dreams.

We are haunted in the South Bronx.

We hold the instruments of the doom of our forefathers.

We get spooked and walk away quickly to spend our dollars on bread, cheese,

apples, and fifty cent ghetto cola.

We cross the Grand Concourse, past Edgar Allan Poe Park in mid-summer droves by the new library crossing Fordham Road as the day goes dark, with open fire hydrants gushing into the sewers.

The Tremont Oval near midnight found us passed out, asleep sitting upright on a bench.

The Tremont section of our fair borough was named by the postmaster Hiram

Tarbox after three hills: Mount Hope, Claremont and Mount Eden.

We can only see a piece of the world, the Mule told me once. To deal with this we give places names, and we act like we own shit. It helps to remember where the hell we are.

We were up on the Third Avenue El train, looking around at all the people, imagining their lives. It only cost 50 cents in those days. Outside our window ten feet away, a woman in a housedress put up wash on the line at ten o'clock at night. What was she thinking? We were kids and we were high, but so what.

We don't get to choose the ones who mark us. So some of us get the killers.

There's a bench up the hill in the park at the end of Mt. Eden Ave.

The wood slats have been replaced since our time, when everything was burned.

Even as The Lecturer slept on the bench,

Esmeralda Toledo

bathed her son in the cradle

of a fallen birdbath

by a crumbling fountain

in the ancient courtyard

of a hotel in Mexico City. Five pesos privilege sleeping courtyard.

Morning sun climbed majestically over stately old cornices,

chased night birds from eaves, they ate McDonald's out of paper packages, solemnly, silent as mice, mounted a truck cab, awakening the penitent driver, who blinked past long gray hair just as his hands came forward with automaton-like grace

& gripped the driving wheel that would take our pilgrims all the way to the

north of Mexico in the state of Nuevo León, over five long days

& nights, stopping in the highlands to eat tortillas wrapped in wax paper

& purchased from a roadside bodega by a mountainside stream that had been at the same location in some form since the advent of the copper coin. They spent a night in a bus shelter in the middle of the desert while the driver slept.

Ms. Toledo was thirty seven weeks pregnant with the twins & any men that came in her way either got out of it, knocking the closest like-wood surface handy, or did her bidding with the alacrity of circus clowns who fight ridiculously to get out of the way of the elephants.

The globe of her stomach felt tight as a marcher's snare drum.

They crossed the border with a Hawkeye band of Apaches that found her walking against the wind through the rain

& picked her up for good luck. They joined a line of cars that stretched for

fifteen miles.

Behind them followed a red Ford Gran Torino with Michigan plates. They

had seventeen other people in their truck.

On the side it said Old Carolina Biscuits. It had been stolen four years previous in the mountainous green lands between Tennessee and North Carolina that were once part of the forgotten English refugee state of Franklin. The Apaches

had bought the truck from a dealer in the capital city of their Mexican province, Monterrey.

The Apaches' home had also worn out. When the blackbirds began to fall out of the sky, the drinking water turned sulfurous, and in the maquilladora wars their women became targets of the atavistic appetites of drug mules.

They crossed as the wind

& rain swept over the Río Grande.

The flood lasted for days as the great river swelled

& overran its banks. Hidden with her son in a furniture box, she read aloud the story of Noah from her bible as they crossed over the great border into America. They were not checked,

& twenty minutes later

the roads were closed.

In days the twins were born at a roadside park in a small town on the Alabama coast in Baldwin County off Bon Secour (Safe Harbour) Bay 35 miles east of Mississippi. When both of the babies had been pulled softly from her by the old aunt who assisted, the two women exhaled and laughed. A warm yet refreshing gulf breeze blew in from the water. The old woman lit a cigarette and they drank from a bright blue can of cold Lipton Brisk.

She called the boy Baldwin & the little girl Alabama. The Apaches were eighteen, two older women, three older men & three young couples. They also had seven children.

Esmeralda paid for gas. She drank from a small stream in the park,

& spent the rest of the night on a blanket beside the truck with her babies, by a verdant mid-summer field planted with tobacco stalks as large

& languid as lovers' laps. In the morning they continued north. They were on the same migratory path. They were on their way here when our itinerant Lecturer came out of a blackout

& found the young man lying passed out

& shirtless, face up on a bench overlooking Tremont Avenue.

The Lecturer had on a pair of slacks

& an Oxford cloth shirt:

Brooks Brothers buttoned to the neck. His socks were blue

& gray argyle.

His jacket, a blue blazer with gold coin buttons.

He had a crumpled-up page from the Brahms score in his pocket with two last dollars.

We never know how

& when we will be touched by grace,

& afterwards we give ourselves the credit as if we had played a part, as if it were not all a symphony written

& arranged by the hands of God. The boy could not have been more than fifteen.

How could we have known that he had come with his father to work in the fruit fields in Buena Vista, California?

That his father had died of a heart attack

That he had no way to write or call his mother

& sister

& brother back home in the tiny mountain town in Peru where he came from, that he had used all the money he had for a bus to New York

& arrived knowing no one?

He just wanted to sleep for a few minutes. His face was badly bruised

& swollen. He had contusions, clearly from fighting, on both arms

& legs. Yet even in his condition, he radiated intense beauty.

As he told someone later, our Lecturer was drawn to the young man.

It was like he wanted to alleviate the boy's pain.

Like what happened to him years ago could somehow stop what was happening to the beautiful young man.

That whatever bad was in our Lecturer might soothe him.

Like the boy's deliverance was the Lecturer's.

When our Lecturer fished out a sweatshirt from a sidewalk Salvation Army clothing box, the young man took it, looking at The Lecturer warily, he started to walk away.

¿Ud. no es policía, verdad? he asked.

The Lecturer shook his head.

¿Cómo se llama?

he asked. Bodaway.

The young man followed our Lecturer back to the old abandoned chapel on Elton Ave. where they slept in the pews, and at dawn to the campus of our college just a few blocks away.

Meanwhile the journey of Esmeralda Toledo's family continued.

After arriving in our great city in late July they slept in Port Authority, parks, abandoned lots

& apartments with extra walls & tiny rooms, spared somehow thank God

from the unspeakable fate of many women

& small children, they slept in the fields, empty lots in the Bronx where there were once buildings, even once in the rusted bumper cars from an abandoned amusement park.

When it was warm, these places were magical underneath the winking star strung sky; in the cold the children shivered and wailed, their voices echoing the

haunted Bronx streets like the siren calls of lost angels: Los Angeles.

That day The Lecturer was standing on the steps of our newly christened East Academic Complex smoking a cigarette, staring into space. When she came in, the wind blew the rain inside the revolving doors. A classical

& jazz prodigy since the tender age of seven, our Lecturer was in the art gallery working through Brahms' Intermezzo, when in walked the pretty, dark-haired woman with hazel green eyes.

She pushed the twin baby carriage up the stairs and into the great hall. In the

gallery there was a shrine with a cross.

With a great air of penitence Esme brought each of the babies to her lips then collapsed in a heap.

# MUSSOLINI'S RHETORIC

# Phillip Wander

The key to Mussolini's masterful manipulation of the Italians in the 1920's and '30's is his rhetoric. The most important source we have of Mussolini's writings, many of which were meant to be spoken rather than read, is the 35-volume edition by Edoardo e Duilio Susmel of the Opera Omnia [Complete works]. Comprised of newspaper articles, speeches, essays, miscellaneous reflections, letters, telegrams, and even a novel, the Opera Omnia is the best source we have of Mussolini's rhetoric. There is a great deal of repetition in these texts, and reading Mussolini's works reveals some monolithic obsessions, some of which are succinctly stated in the Fascist party's yearly arrangement of slogans to be painted on public walls (Segàla 22-23). Fascism is rife with refrains that are obvious yet nebulous, repellent yet seductive, at times intriguing, but ultimately, heavy-handed and defective. There is for instance "Non siamo gli ultimi di ieri ma I primi di domani [We are not yesterday's last but tomorrow's first]." It is impossible to define, clearly, where in time this is located. History is always treated with a broad brush and with remarkable fluidity: "Io sono reazionario e rivoluzionario, a seconda delle circostanze [I am revolutionary or reactionary as circumstances dictate]" (Susmel XV 187). There is no time to examine the ultimate meaning of these slogans because (and this particular slogan is still on the church wall at Marettimo an island off the coast of Sicily): "Sostare è retrocedere. La marcia continua, altre mète attendono il segno romano della nostra conquista [Stopping is retreating. The march continues, other objectives await our Roman conquest]." There is no escaping the nationalistic and jingoistic themes of patria, glory, pride, domination, combat, destiny, victory, honor, heaven, and duty. The notion of war, of battle, of sacrifice, of courage, of heroism and of its supposed grandeur is a consistent and yet paradoxical element of his rhetoric.

Augusto Simonini's book *Il Linguaggio di Mussolini* explores Mussolini's language. Simonini's analysis of the cadences of Mussolini's speeches are very insightful and helpful to the non-native speaker of Italian. Whereas the visual impact of Mussolini's pugnacious face and histrionics are immediately accessible to anyone

who sees one of the many videos of his speeches, a detailed scansion of his radio address regarding war on Ethiopia on October 2, 1935, requires a trained and sensitive ear (71-77). Simonini wrote extensively on linguistics and declares in the first line of Il Linguaggio di Mussolini that it "is a sustainable proposal" that "Mussolini was interested in linguistic research and study" (7). For Mussolini, words were palpable entities and living things, endowed with personalities and independent life, inextricably linked to the political fabric of the moment. However, Mussolini was not simply a "natural" rhetorical talent. That he was a skilled speaker is irrefutable, but he groomed and developed his natural abilities, simultaneously refining and strengthening his delivery. This process of development is evident from even a superficial comparison of one of his earlier speeches with a later example such as the "Declaration of war on Ethiopia," analyzed by Simonini. Mussolini was both a wordsmith and student of linguistics; that he was, in his political writing, a link to some of the literary movements of more recent times merits more study and analysis. He used words like fetish objects at a religious ceremony, as points of departure to a spirit land of dreams shared by the collective consciousness of the crowd. People talk of the evil genius of Mussolini and Hitler without insisting on the extent to which they were the creations of their audience. A share of the culpability resides in the people who could not resist their flattery, hearing that they constituted the best of races, that they were the torch carriers of civilization, and the promise and future hope of humanity: "Io non ho creato il Fascismo: l'ho tratto dall'inconscio degli italiani [I didn't create fascism: I retieved it from the Italian subconscious]" (Lepre 173).

Mussolini read and re-read Gustave Le Bon's Psychologie des Foules, calling it "a fundamental work, to which I still often return" (Susmel XXII 156). According to Le Bon, crowds, instead of being the sum total of the individuals of whom they are comprised, constitute a single personality, stronger and more single-minded than any of its constituent parts, as well as more violent and more barbaric. Mussolini understood that in crowds, individuality vanishes and instinct takes over: "Mobs—especially Latin mobs—become enflamed with enthusiasm for glory and honor, and can easily be dragged into war without bread or arms" (Simonini 129). This quotation is peculiarly prophetic with regard to Mussolini's poorly armed, poorly fed, and poorly led troops. When the Nazi General Siegfried Westphal was asked if Italian soldiers were any good, he said: "The Italian soldier was badly equipped and carried basically the same arms and equipment that he had in World War I. In such conditions one cannot go to war... Mussolini had certainly not prepared his nation as he should have for serious combat" (Bertoldi 43). The general was a practical man, so for him, mere rhetorical preparation was not enough.

War is conducted with the machinery of modern warfare, not with words, and slogans and ideas alone. When Le Bon wrote *Psychologie des Foules* in 1895, he was no doubt thinking of the ragged armies of revolutionary France, but his words are also applicable to the Italian armies in World War II, and much of what Le Bon has to say about the mob constitutes a blueprint for the transformation of Mussolini into "Il Duce." According to Le Bon, mobs, in the manner of herds and flocks, instinctively seek a chief or a leader, and so much the better if he is authoritarian and somewhat of a tyrant (23). From Le Bon, Mussolini knew that crowds respect force and the simplicity of force. He also learned that he could lead them anywhere, as long as the message promised future glory and conquest.

In his oratory, Mussolini has compared himself to an artist many times, on one occasion placing himself in the company of Michelangelo. The German journalist Emil Ludwig says in one of his "Colloquia" with Mussolini in 1932 that the dictator felt that a politician worked in a medium that was more difficult than that of an artist since his material is humanity. Ludwig reports that Mussolini saw humanity as material that is "variable, complex, subject to the influence of the dead and of women" (182-3). The pairing of women and the dead is indicative of one of Mussolini's secret fears and obsessions; in their submissiveness to the artist's hand, the masses are also associated with the feminine:

When I feel the masses in my hands...or when I circulate amongst them...I feel myself a part of them. And yet a certain aversion is present, similar to what the poet feels about the material with which he works. Does not the sculptor sometimes strike the marble with anger [a reference to Michelangelo and his Moses] because it refuses to conform to his vision? For the politician it is still worse as his material sometimes strikes at him... Everything depends on this: dominate the masses as an artist his medium. (Ludwig 126-7)

But domination is not plenitude; it is a constant arriving. The politician, like the artist, is never finished; another "capolavoro" (masterpiece) beckons. It is the reverse for the dominated. The masses must feel an iron grip and will which freezes their world into coherence. For them the implacable vision of the artist and its inexorable constraints are the source of comfort and ease. The metaphor of the politician and the masses, the artist and his medium is the justification for the absolute subjugation of the latter and the total freedom of the former. These types of dichotomies and contradictions are at work in the structure of Mussolini's prose; their rhetorical resolution is purely imaginary:

What is the relationship between politics and art? Between the politico and the artist?...That politics is an art there is no doubt. It is certainly not a science. It's not even empirical. Therefore it is an art. An intuitive art. Political, like artistic creation, is slow elaboration and improvised illumination. An artist creates with inspiration and the politician with decision. Both work on matter and spirit... And there are other links between politician and artist; I'll cite just one: an endless, eternal lack of satisfaction. A tremendous but ultimately salutary dissatisfaction with the way things are, never the way one hoped them to be. The smug beatitude of the accomplished is as unknown to the artist as it is to the politician. (126-7)

Fascism is an ideology that halts the world and suspends or reverses the flow of time. Fascism makes a pact with its adherents to enter a space where the laws of causality and logic are suspended. In this space, the world is clearer and simpler, which appeals to the mass of men, thus freed from the chore of thinking. To its followers, the fascist ideology is liberating and comforting. The tacit agreement between fascism and the mob is a flight from reality:

The world of fascism is not this superficial, material world in which the individual is separated from everyone else and living for

himself, ruled by natural law, and instinctively living for pleasures both egotistical and fleeting. The fascist man is a nation and a fatherland, a moral law...suppressing the desire for a life of pleasure in order to attain a superior life, free of the limits of time and space in which the individual renounces the self, its life, and its individual interests in favor of a purely spiritual life in which he finds his true value as man. (Susmel XXXIV 118)

The direction of Mussolini's thought progressively shaped the public man who became, both in appearance and pronouncement, ever more immutable. As the propaganda claimed, *Il Duce ha sempre ragione!* The Leader is always right!

#### MUSSOLINI'S TRANSFORMATION FROM JOURNALIST TO DICTATOR

The middle stage in the evolution of Mussolini's rise to power is one of ever-increasing purpose. Prior to his apotheosis into Il Duce, and subsequent to his long apprenticeship as a socialist, journalist, serial novel writer, draft-dodger, anticlericalist, bohemian and expatriate (all identities that he would later renounce) are a series of roles that are mostly the exact antithesis of what he will later become. It is a stage whose predominant characteristics are struggle and dialectic. It is as if Mussolini had been struggling with his own confusion and contradictions in order to resolve them into something rational and coherent. In his work, Mussolini described a trajectory from the irrational to the rational, from the unintelligible to the intelligible, from chaos to consistency, from common language to Ducean rhetoric. Philosopher Michel Foucault described the mechanics of the transition very insightfully in an interview:

All human behavior is scheduled and programmed through rationality. There is a logic of institutions and in behavior and in political relations. In even the most violent ones there is a rationality. What is most dangerous in violence is its rationality. Of course violence itself is terrible. But the deepest root of violence and its permanence come out of the form of the rationality we use. The idea had been that, if we live in the world of reason, we can get rid of violence. This is quite wrong. Between violence and rationality there is no incompatibility. (Foucault and Lotringer 299)

Until 1919, Mussolini's activities were journalistic. He edited and wrote for the Socialist newspaper Avanti! After banishment from the Socialist party for his support of Italy's entrance into World War I, he started his own publication, Il Popolo d'Italia. Journalism allowed him to interact with the public and gain an audience. It also permitted him to experiment with the written word, in a context of constant change, which is the domain of the news media.

The usual image of Mussolini shows the dictator with his hands on his hips, his lips puckered, his jaw squared, his head haughtily tilted back, draped in one of his elaborate uniforms. However, long before this stage persona was crafted, he worked as an inflammatory journalist. It is probably his experience as a combative journalist, as someone who takes sides in a debate that taught him the tools of intransigence. Early in his career, he began thinking of the world purely in broad,

clear but simple dichotomies: black vs. white, strong vs. weak, winner vs. loser, glory or dishonor.

Mussolini said that it was: "Meglio vivere un giorno da leone, che cento anni da pecora [Better to live one day as a lion, than one hundred years a sheep]" (Segàla 22). Indeed, fascism is rife with slogans and pithy pronouncements of this sort. Mussolini was endlessly fecund in his production of mottos and catchphrases, some of which can still be seen in faded characters on the walls of Italian buildings (38-74). He believed that such sayings were essential to communicating his message to the people, and in their communicating it to others. Slogans resemble viruses or machines that reproduce themselves endlessly. In the Italy of the 1920s, people caught the virus.

When real victory became ever more elusive, and then impossible with Italy's surrender in 1943, slogans did not help. Far from a crescendo swelling the breast like a Fascist salute, the ubiquitous catchphrases stood like deflated sentinels of their own emptiness: from everything to nothing. From the "new Rome" expanding beyond the borders to the brief pupper state of La Repubblica Sociale occupying less than half of Italy and that half dismembered by Hitler. From independent state to

battlefield of foreign armies, from empire to civil war.

More and more, the dichotomies expressed in Mussolini's writings became not only a means of defining the sides of a question or debate, but also a means of exclusion and contempt. To an ever greater degree, his dualities become mutually exclusive; more than contradictions, they assume the role of combatants. There is a slow transformation from a kind of secular Manichaeism to a dogmatic identification of the Enemy. As Mussolini put it: "O fascismo o antifascismo: chi non è con noi è contro di noi [Fascist or antifascist: for us or against us]." This sentence is from the official list of slogans for public buildings drawn up by the Partito Nazionale Fascista in 1939, but perhaps the most famous on that list is: "Credere obbedire combattere [Believe, obey, fight]." Mussolini repeats these words on March 26, 1939 in Rome amid wild applause and cheering to the "Old Guard," and in this speech are revealed all the pathos of his performances: "Grab your guns!, jump into the trucks!" According to Mussolini, the Italy of 1939, which was on the verge of collapse, is disciplined, creative, warlike, and imperial. Mussolini recognizes no obstacles and his soldiers joyfully embrace sacrifice: "La Patria si serve soprattutto in silenzio, in umiltà e in disciplina [Above all the Fatherland is served in silence, in humility, and in discipline]."

It is difficult to ascertain what Italians felt at the fascist rallies of the 1920s and 1930s, but contemporary descriptions of the *Palio di Siena* (which takes place every year during the months of July and August) can help recreate the atmosphere. It is a remarkable event. Full of ceremony, speechifying, and military pageantry, with soldiers and their captains attired in medieval armor marching in the streets to the sound of drums. Siena reverberates with ominous drumrolls, shouts and bugle calls. Close-packed bands in colorful costumes fill the narrow streets, waving huge flags and chanting songs reflecting the glory of their "contrada" (ward). The climax of the event is a horse race, but the Palio is, in fact, a kind of war that has been going

on for centuries.

The pride that people invest in identifying themselves with their faction is amazing; scarves are worn so there can be no mistake of identity and allegiance; the

colors of Heraldry are displayed in the uniforms of the jockeys and the trappings of the horses, bright reds (Gules), greens (Vert), blues (Azure), purples (Purpure) set off with black (Sable) and gilt hang from every window turning the medieval streets into a kaleidoscopic array; though festive it is all nonetheless extremely serious and the honor of the contrada is no laughing matter. The summer I saw it (July 2013), some Dutch tourists made the mistake of trying to introduce some levity into the proceedings and were assaulted and punched for their pains. During the race itself, one of the jockeys representing one contrada fell off his horse in front of a rival contrada's stands and, by some strange twist of wild pride, was beaten up—in spite of having broken his pelvis in falling. There are many religious aspects to the whole affair, not the least of which is its dedication to the Virgin Mary. On the morning of the race, each horse is blessed with great solemnity at the altar inside the church of its contrada. The mise-en-scène of each event is meticulously choreographed for maximum impact on the spectator, and to awaken one's natural impulse to take sides in a competition. Prizes are distributed for everything from costume to flag-waving. Although, in some recess of the mind, the participants must realize the ultimately gratuitous nature of the enterprise, one would never know it—the flight from reality is its own reward. Fascism was a constant spectacle and circus, an escape to fictive triumphs fought in ersatz wars.

Mussolini never failed, when addressing crowds from balconies throughout Italy, to encourage his compatriots to compete for world domination. By any objective measure, this was patently nonsensical. His armies, armed with planes, tanks, bombs and poison gas, fought against Ethiopian warriors who lived in grass huts and carried spears. Despite the inequality, Mussolini compared victory in Ethiopia to the great conquests of the past and the reestablishment of the Roman Empire—proof of his military genius and proof that the Italian armies were indomitable. This incongruous comparison between past and present was indicative of how disconnected Mussolini was becoming. The final stage of Mussolini's development goes from a "merely verbal" separation to a complete divorce from reality.

# MUSSOLINI'S TRANSFORMATION FROM DICTATOR TO WORLD CONQUEROR

The solutions that Mussolini proffered are paradoxical: war is unifying because of its explosive energy. The trench is not a place of refuge and of death, but rather a furrow bearing seeds for the future. Mussolini had no notion that World War II would be substantially different from World War I, or that armies were no longer composed of sandal-footed men marching in close formation through the countryside. In his mind, he believed it is possible to win battles on faith rather than force of arms. The army that wins is the army possessing the greater will to win:

Quali sono le tre parole che formano il nostro dogma [What are the three words of our creed]?" "The crowd answers as if on cue: "Credere! Obbedire! Combattere!" Responds IL Duce: "Ebbene, camerati, in queste tre parole fu, è sarà il segreto di ogni vittoria." Translation: Well, comrades, in these three words, was, and will be the success of every victory. (Susmel XXIX 253)

Some post World War I literary movements were inspired by the potential terror of words and state rhetoric to flee from denotation and meaning, to demolition

and absence. At least part of the "littérature blanche" [blank literature] or "degré zéro" [zero point] of the literary word explored by Roland Barthes and other modern semiologists was reacting to its menace: "Language is never innocent: words have a second memory which continues mysteriously amongst its newer meanings" (16). There is a whole impulse in modern literature to withdraw from the political arena or to displace itself from the partisan signifier. Rationality can also be akin to madness: how can one awake from the nightmare of history (Joyce 28)?

One of the reasons Mussolini was never able to get along with Filippo Marinetti or Gabriele D'Anunzio was that theirs was a literary fight, motivated by a desire to liberate society of its hackneyed and worn-out bourgeois ideals and move forward. Marinetti founded the Futurist movement that sought to embrace all the energy of the modern industrial city; D'Annuzio aspired to be the superman described by Friedrich Nietzsche, beyond good and evil. What Mussolini offered was, in fact, a step backward to a classical age, or rather a theatrical version of that age—hence his love of costumes, hats and all the paraphernalia and trappings of an ornate past.

It is difficult for us to gauge how "normal" the spectacle of Fascist Italy seemed to the man in the street of the time. As part of the huge cheering crowds unfailingly drawn by Il Duce's appearances, he probably did not think about it much. In his private moments though, like the inhabitants of Siena during the Palio, he no doubt had misgivings. The passage of time distorts our view of Mussolini's "New Rome," and the words of the time align with a reality that is now evanescent and blurry, but history plays a major part in that narrative:

Much of what was the immortal spirit of Rome resurfaces in Fascism: Roman is the Littorio, Roman are our combat formations, Roman are our pride and our courage...Today must be the history of tomorrow, the one we want to consciously create. (Susmel XVIII 161)

In my beginning is my end, the past is tomorrow, a relay to the invisible informs my actions: "L'inizio è la fine! Will. Purpose. Sacrifice. Glory! (Mussolini 356).

The identification of Fascism with ancient Rome is significant. The further back one goes, the easier one can ignore the problems of the present. The past, insisted Mussolini, did not make Italy great; remembering the greatness of the past however could inspire the citizens of modern Italy to surpass it. Greatness is not a privilege but a duty. It was destiny that Rome, Fascist Rome, once again become the epicenter of Western civilization:

I am proud to say that if they let us work in peace for 5 or 10 years, Italy will be able to direct world civilization. In Europe, countries go up and others go down. We number amongst those on the ascent. We will rise. (Susmel XXI 444)

We are far from the mere winning of a territorial war; we are far from an impromptu 'improvised illumination;' we are standing at the crossroads of WORLD CIVILIZATION. Italy will rise, Italians will rise, and rising with them, Il Duce. The divisions and oppositions that brought things to this state are swept aside: everything conspires to make ONE. That one, for Fascist Italy, was Il Duce. He was

"always right." As a citizen I had only to let myself get drunk on his soaring rhetoric

to be transported to the faery lands of fondest aspiration.

In the end, fascism was really nothing but Mussolini. Moreover, Mussolini sacrificed the man to build the idol. That idol, always right, proved to be nearly always wrong. Still, the course could not be changed. Mussolini was a one-way Duce: forward. Stopping is retreating. Without forward momentum, the elaborate stagecraft collapses and the emperor has no clothes. It seems incredible to us, but the Fascist government had no plan of defense. Naples, Rome and Florence were bombed and there were no air-raid shelters. The emotional energy needed to turn to real defense from sham victory was not there. The last gasp was Hitler's promised weapons of mass destruction that thankfully never materialized.

Mussolini's rhetoric was comprised of often-repeated abstract words such as war, battle, sacrifice, courage, heroism and grandeur. Seemingly innocuous words such as these allowed the mid-twentieth dictatorships to turn living flesh into dead. Dead words, dead armies, walking cadavers with dead numbers tattooed to their tormented arms, dead crowds roasted in the fireballs of dead cities, dead art and dead sculpture forever buried beneath the dead rubble of dead promises and dead hopes. Fortunately we have moved beyond those times though we can never rest assured that Fascism is dead. Wars are proof that Fascism is not dead.

#### POSTSCRIPT

Mussolini's tomb has become a place of pilgrimage for those still devoted to him and to the "glories" of Fascism. Not long after their demise Fascism and Il Duce engendered a cult. Moreover, one can buy tee shirts, busts, and other paraphernalia online to help finance the cult. There are a number of websites devoted to the glories of Il Duce and the twenty years of Fascism in anticipation of their return. Some still think they were the best years of Italy's history.

#### REFERENCES

Barthes, Roland. Le Degré Zéro De L'écriture. Paris: Seuil, 1953. Print.

"Battle of the Piave River." Wikipedia. Wikimedia Foundation. 05 Apr. 2014. Web.

Bertoldi, Silvio. I Tedeschi in Italia: Album Di Una Occupazione, 1943-1945. Milano: Rizzoli, 1994. Print.

Bon, Gustave Le. "The Sentiments and Morality of Crowds." *Psychologie Des Foules.* Paris: F. Alcan, 1905. 23. Print.

Foucault, Michel, and Sylvère Lotringer. "Truth Is In the Future." Foucault Live: (interviews, 1961-1984). 2nd ed. New York, NY: Semiotext(e), 1996. N. pag. Print.

Joyce, James. "Episode Two." Ulysses. London: Penguin, 2008. 28. Print.

Lepre, Aurelio. Mussolini l'Italiano. Milano: Mondadori, 1995. Print.

54

- Ludwig, Emil, Tomaso Gnoli, and Benito Mussolini. *Colloqui Con Mussolini*. Traduzione DiTomaso Gnoli. Milano: Mondadori, 1932. Print.
- Mussolini, Benito. Dall'intervento Al Fascismo: (15 Nov. 1914 23 Marzo 1919). Vol. XII Milano: Hoepli, 1934. Print.
- Mussolini, Benito, Duilio Susmel, and Edoardo Susmel. Opera Omnia Di Benito Mussolini. Vol. XVIII. Firenze: Roma: La Fenice; Volpe, 1951. Print.
- ---. Opera Omnia Di Benito Mussolini. Vol. XXII. Firenze: Roma: La Fenice; Volpe, 1951. Print.
- ---. Opera Omnia Di Benito Mussolini. Vol. XXIX. Firenze : Roma: La Fenice ; Volpe, 1951. Print.
- ---. Opera Omnia Di Benito Mussolini. Vol. XXXIV. Firenze: Roma: La Fenice; Volpe, 1951. Print.
- "Palio Di Siena." Wikipedia. Wikimedia Foundation. 05 Apr. 2014. Web.
- Segàla, Ariberto. "Foglio di Disposizioni." *I muri del Duce*. Lavis: Arca edizioni, 2007. 22-23. Print.
- Simonini, Augusto. "Dichiarazione Di Guerra All'Etiopia." *Il Linguaggio Di Mussolini*. Milano: V. Bompiani, 1978. 71-77, 129. Print.



# ADAMANTIA, AN INTERMITTENT SEARCH FOR WORDS

## Inmaculada Lara-Bonilla

What follows is the adaptation of a text read at the 2013 Imagining America national conference, a gathering of scholars, artists, and designers from all corners of the United States under the title "A Call to Action: Reflection, Inspiration, and Change." The conference was an idyllic celebration of democracy, of teaching, of creativity, and of impassioned activism. My presentation was developed in the frame of a flexible conference format, deviating both from the positivist research paper using verifiable data to demonstrate a hypothesis, and the presentation carefully showcasing the achievements of a socially engaged project. My piece was, in fact, a small collection of self-referential micro-stories that were assembled as a brief narrative collage. I shared my thoughts and stories very much in the oral tradition: by telling them around a table (a "roundtable"), without visual aids, PowerPoint, poster boards, or any other three-dimensional objects other than my voice.

The roundtable I had convened, "Writing and the City," was about our relationship to writing, teaching, and urban environments, three interconnected passions that were crossing paths for me again in an interesting manner. I was writing and planning the roundtable within the first month after having joined Hostos Community College, CUNY. It was a moment of transition and transformation: transition from one institution to another, from one city to another, from several communities to several others. It was a time for change in ways that I could not anticipate, let alone understand. I only knew that it was a time of intense thinking and planning, of inspired action, and renewal. Just what conference promised to address.

Clarifying my relationship to the threesome "writing-education-cities" at this particular crux was not easy trying made me realize that his one was one more moment in a series of attempts, that there had been many other times when I had wanted to say, draw, or dance how these three passions fed each other, how I found them intertwined, over and over, in the most surprising and delightful compositions.

Below is my brief collage, made up of some of these threads, braided together with the driving desire of a search I have come to call Adamantia. Adamantia makes

me think of the roots of my interest in language and teaching as they connect to experience and to the preservation of legacy, but also as they connect to creativity, fiction, and the future of dreams. Adamantia reminds me of the beauty and imagination that often transform moments of teaching and of writing into feasts.

#### **ADAMANTIA**

Adamantia is a region. It is an archipelago, to be precise. It is the archipielago and the map. A moving map, it is also the conversation with the map. Adamantia is a delicious search for stories. Adamantia is the interrupted, believing, and adamant search for words.

#### MÓNICA

Madrid. Six years old. While walking to school with my gloomy neighbor, I come up with the perfect—I think—idea to cheer her up and I make a joyous but serious proposition: "When we grow up a little, we should move together to an apartment filled with the little colored sheets of paper we get from the printing shop." A skeptical silence follows. "We'll stack them up all the way to the ceiling and invite our friends over." I elaborate.

My child's tongue cannot articulate in any other way what I imagine could happen in the colorful place where we can write together, or draw, or dance and laugh as we wish. Mónica glances over her shoulder and keeps walking by my side as the light turns.

#### THE WAR AND THE TRAIN

As children, my brother and I would repeatedly ask our grandfather to tell us the story of the train. We called it indistinctly the "story of the train" or "the story of the war," convinced that the war was primarily a story, and that the story of the train and the story of the war were one and the same, our only real war story.

The codified tale went like this: During the Civil War, my grandfather and his friend were taken prisoners and huddled on into a train with dozens of others. On its way to Seville, the train made a stop in the woodsy mountains. The two friends asked the sergeant overlooking their car if they could step off briefly to relieve themselves. They jumped off and hid immediately. While the train, full of soldiers and prisoners, started again, they too ran and ran and kept running without a stop or a look back for hours. They saw a house and a woman by its door. She invited them to come in and fed them and the friends stayed with their female savior and her husband for a few days. Then, they hid and walked for weeks. They hid and walked more than two hundred kilometers to return home, a trek that took several months. Nobody in their families knew where they were. Peasants would lodge them overnight, clothe them in peasant clothes for protection, and feed them along the way.

Grandpa never said whether he was being transported to a death squad or to a different front. We sensed the murkiness in his silence and never asked. We would simply request, over and over, the story of the train. It was better than a movie and perhaps this time we would learn something new.

Later, as a teen, I wanted to know more about the war and muster the courage to gently prod my grandmothers regularly. We spoke about their youth and

adulthood before and during the war years. I listened, asked questions, wrote stories, and recorded their voices. Today, I ask my students to provoke similar conversations with their elders. I fear that the stories can be lost at the airports, in the streets and stairs, under the rails of the subway lines.

#### DETROIT

As an undergraduate student, I am invited to visit the United States and I see my first North American city. To me, Detroit, Michigan, looks like a bombed-out, besieged conglomerate of highways under a curfew. All I can think about is that this is the closest I have ever been to a war. But I also feel this is very different from my grandparents' war, that the sight is asking me to understand something about the unending rawness of U.S. urban struggle, other missing pieces of history, thing that I had not learned or imagined from across the ocean.

During the same months, I discover the discipline of "creative writing," which is taught and practiced at my new college. I start writing furiously under the influence of central Michigan's frozen air. I daydream of never stopping the practice, of sharing it, and of some day passing on the joy of this discovery through teaching.

#### WOMEN WRITING MEMOIR

After several years and several other cities, I encounter another post-industrial American landscape with its own share of economic and social depression. It is Syracuse, New York. From the college on top of the hill, the community centers, and the deserted winter streets, I design a graduate course to "engage" myself and my self-segregated students with the city that we live in, but are far from. I want us to listen, to learn, and to record, inspire, and understand stories by women who had migrated from Latin America, the inverted mirror. I invite women living in the West Side of city (the area that most Latinos/as share) to write and publish their memories of travel, of changing places, and of anything else they like. The women I approach willingly and enthusiastically share their writing with us and, later, with an entire academic community. We publish a small book with their texts, and they perform at a public reading in Spanish, their native language, on the main campus. Everything is a success, but I am not satisfied. I wonder what should come next.

#### CASITAS

In hindsight, I don't think I ever abandoned that idea that Mónica didn't like or understand as a child (would she now?). I continue fantasizing about a place full of colored sheets all the way to the ceiling, a home of a different learning experience and a different language. A place inhabited by art, writing, and community. A place for dialogue and dancing, a place for reading and story-telling. I begin envisioning La Casita Cultural Center, a new public space for Latino/a and Latin American art and culture for the college and the community alike. After two years of hard work, the center opens and runs with success. Looks like a success, sounds like a success, but, again, I it takes me some time to find the words that speak about it and about what may be missing.

#### POEM

In 2011, I publish a poem that talks about the city—Syracuse—about writing, and about teaching. It's called "Trails/Senderos." Down its lines march the trains, the stories of people that I know and that I don't know, the women who migrate, my own migrations and love for words and for teaching, the mystery of the cities, and the strange language that may speak to the connection of it all: "The imagined voice/ Echoes among the trees,/ While the grunting train lulls/ Something beyond and over the rooftops" (Lara-Bonilla 2011).

#### RECLAIMING IDENTITY

Reclaiming Identity is the title of a book I read while writing research in Latina women's autobiography. Three years later, those two words haunt me. I send emails, write justifications, use what seems like every word and every silence I have to explain that, although I could be, I will not be who I don't think I am; to clarify, to reclaim that I am a seeker of knowledge, the sort of inspirer-writer-curator-researcher-in-the-world-educator for dreaming. I look for the language to say this in the city, in the classroom, in the conference room, at the library, on the page.

#### FICTIONS

A student who I have known for over ten years, and in two different cities, has developed a substance addiction. He seeks my help and support. He is enrolled in my creative writing class and has moments of brilliance, increasing absences, and sometimes thoughtful, sometimes meandering writing. I can only explain my personal theory of fiction, which is somewhat of theory of dreaming, of writing, of living, of seeing, and of composing the future. It is a way of imagining, a strange ontology. I try to explain how I believe that our wishes may be fictions, your fictions guiding stars, and how your guiding stars may protect you and make your fictions and dreams come true, the matter of real life.

#### **NEW YORK CITY**

Manhattan is a mecca where millions are said to pursue their dreams, their fictions. However, I find in the South Bronx the door that unlocks the complex past and present of the local city. The building where I teach is filled with colorful pieces of art all almost the way up to the ceiling. Since the first time I walk into it, they speak of an endless opportunity to create, learn, and inspire. It houses a creative and intellectual community committed to teaching and to the city. If only Mónica could see... But this city's story is yet to be told, the fiction to be released.

#### REFERENCE

Lara-Bonilla, Inmaculada. "Trails"/ "Senderos." Stone Canoe 5 (2011): 246-7.

# DEVELOPMENTAL ALGEBRA ASSESSMENT: CLOSING THE LOOP UNDER SHIFTING EXIT STANDARDS

# Alice Welt Cunningham and Kathleen Markert Doyle

#### ABSTRACT

This paper summarizes the Mathematics Department's efforts, despite changing University-wide exit standards, to assess and improve student learning in the College's Elementary Algebra course. As over three-quarters of Hostos' students enter requiring remediation in mathematics, improving student success in this gateway course is essential to increased retention and graduation rates.

Of our three assessments to date, the first was completed in the Fall 2011 semester using Hostos' previous Departmental learning outcomes. However, in 2012 CUNY issued new algebra standards, coupled with a University-wide exit examination. Item analyses for the new test are not available for individual institutions. Thus, the Department conducted its two subsequent assessments using its own midterm exams aligned to the new standards. While the midterm analyses show unusual improvement in factoring, the midterm exam is given directly after this topic is taught. By contrast, other weaknesses parallel the university-wide findings. The paper describes steps already taken and those in train to further improve student performance.

#### INTRODUCTION

Using student learning outcomes assessment to improve student performance has become the *Touchstone* of successful institutional progress. In Beyond Crossroads, the American Mathematical Association of Two-Year Colleges prescribes a six-step assessment cycle requiring the continuing redefinition of student learning goals based on assessment results at the classroom, course, and program level (AMATYC, 2006, p. 15, 29). Similarly, the Middle States Commission on Higher Education cites "a culture of 'continuous improvement'" as the criterion seminal to the determination of institutional effectiveness (Middle States, 2007, p. 17), with assessment of student learning at the heart of that process (Middle States, 2006, p. 63).

This paper describes the Hostos Mathematics Department's first three courselevel assessments in Elementary Algebra (Math 20). Throughout the City University of New York, passing this course constitutes the pre-requisite to credit-bearing college-level work and therefore to retention and graduation. As demonstrated by a recent five-year lookback, over three-quarters of Hostos' students enter needing remediation in mathematics (Hostos Self-Study Report, 2012, Appendix 9.1, p. 250), a situation that prevails as of this writing (Hostos OIR Student Profiles, 2014). Thus, improving performance in this gateway course is integral to improving retention and graduation rates overall. This paper summarizes the Mathematics Department's ongoing attempts to analyze student performance since Fall 2010 notwithstanding the University's recent revision of its exit-from-remediation algebra standards (CUNY Mathematics Panel Recommendations, 2012).

The University's new exit standards were issued early in 2012, effective immediately, and have been modified a number of times since then. As can be seen from a comparison of the old and new course learning outcomes (attached as Appendices A and B, respectively), the new standards introduce the topics of inequalities and function notation and place a heavier emphasis on two-step factoring and scientific notation problems. Proportions and percents, formerly not addressed at this level,

are addressed in the context of word problems.

Pursuant to University mandate, student learning is now measured by a University-wide final exam (the CUNY Elementary Algebra Final Exam, or CEAFE). However, individual item analyses for the new final exam are unavailable on a disaggregated college-by-college basis (CUNY Office of Institutional Research, 2013). Therefore, while the Mathematics Department's first assessment (completed in Fall 2011) was based on the Fall 2010 Departmental Final Exam and related learning outcomes, the two subsequent assessments (in Spring 2012 and Spring 2013) were based on the Departmental Midterm Exam, for which the Department is able to prepare the type of question-by-question analyses not yet available for the new University-wide final. Because the Departmentally-prepared exam is a midterm rather than a final, it is administered by the tenth week of the 14-week semester. The midterm thus covers only the first 10 of the 14 learning outcomes based on the new standards (see Appendix B).

In order to permit a comparison with the results of the first assessment, the second assessment was aligned to the earlier learning outcomes. The Spring 2013 assessment described here therefore represents the first to use learning outcomes based on CUNY's new University-wide standards. Despite the changing exit-standards, many of the exam questions remain the same, thus permitting comparisons and conclusions.

#### THE DATA

Our initial assessment was performed by hand by Hostos Office of Institutional Research based on a representative sample of Departmental pencil-and-paper exams. By contrast, both the second and third assessments, based in each case on the multiple-choice Departmental Midterm, were graded by Scantron, with all exams taken into account. Nevertheless, comparing similar questions from each of the exams permits performance comparisons.

The data summarized below report the results of the most recent assessment, with comparisons to the two earlier analyses where possible. The results reflect Scantron item analyses for 605 students on four forms of the exam, with the forms distributed approximately equally among the examinees. In keeping with the first two assessments, the following Department-wide assessment standard was used to determine whether a learning outcome was met:

60% or above correct: S+ Above Satisfactory
50-59% correct: S Satisfactory

40-49% correct: N Needs Improvement
Below 40%: U Unsatisfactory

Revision of these standards to reflect the new University-prescribed 60% pass-

ing cut point currently is under way.

The data are summarized in several tables. The first table reports results by individual learning outcomes, listing all exam questions applicable to each such learning outcome. For learning outcomes involving more than one question, the remaining five tables break down those results on a question-by-question basis, as follows: (a) linear equation application problems (SLO #4; Table 2); (b) literal equations (SLO #5; Table 3); (c) exponential expressions, including scientific notation (SLO #7; Table 4); (d) operations with polynomials (SLO #8; Table 5); and (e) factoring (SLO #9; Table 6).

Table 1: Analysis of student performance by learning outcome

Student Learning Outcomes (SLOs)	Question	Spring 2013: % Correct	Spring 2012: % Correct	Current SLO Status (2013)
SLO #1: Performing operations on real numbers	13	35	35	U
SLO #2: Evaluating algebraic expressions (including function notation, new)	3	54	no function entry	S
SLO #3: Solving a linear eugation in one variable	18	61	53	S+
SLO #4: Linear equation application problems	4,9,10,12,17	58	45	S
SLO #5: Solving literal equations (increased emphasis)	2,14	59	54	S
SLO #6: Solving and graphing linear inequalities (new)	20	45	38	N
SLO #7: Simplifying exponential expressions (increased emphasis on 2-step scientific notation problems)	8,11	35	50 (different questions)	U
SLO #8: Operations on polynomials	5,6	66	52	5+
SLO #9: Factoring polynomials	1,7,15,16	69	67	S+
SLO #10: Solving quadratic equations by factoring (equations not in standard form)	19	46	no entry	N

Table 2: Linear equation application problems (SLO #4)

Question	Description	Spring 2013: % Correct	Spring 2012: % Correct	Current SLO Status (2013)
4	Proportion (1st analogous part missing)	54	not available	S
9	Proportion (2nd analo- gous part missin)	60	not available	S+
10	% increase/decrease (find new amount, then percent change)	57	no similar question	S
12	% increase/decrease (find percent, then new amount)	55	no similar question	S
17	Translate word prob- lem into equation	64	53	S+

Table 3: Literal equations (SLO #5)

Question	Description	Spring 2013: % Correct	Spring 2012: % Correct	Current SLO Status (2013)
2	Multiplication/division principle of equality	52	48	S
14	Addition/subtraction principle of equality	65	60	S+

Table 4: Simplifying exponential expressions (SLO # 7)

Question	Description	Spring 2013: % Correct	Spring 2012: % Correct	Current SLO Status (2013)
8	Division with 2-step scientific notation	23	51 (1-step only)	U
11	Exponential fraction with negative exponents	48	59 (no negative exponents)	N

Table 5: Operations with polynomials (SLO #8)

Question	Description	Spring 2013: % Correct	Spring 2012: % Correct	Current SLO Status (2013)
5	Subtracting one 3-term polynomial from another (distributive property)	66	55	S+
6	Division of 3-term poly- nomial by a monomial	67	65	S+

Question	Description	Spring 2013: % Correct	Spring 2012: % Correct	Current SLO Status (2013)
1	Factoring by grouping (a ≠ 1)	68	65	S+
7	(GCF) $(x^2 + bx + c)$	67	69	S+
15	(GCF) (difference of two squares)	64	67	5+
16	$x^2 + bx + c$	78	no similar question	S+

Table 6: Factoring polynomials (SLO #9)

#### ANALYSIS

As the three assessments involved three different exams and two different sets of learning outcomes, no precise comparison is possible. Moreover, University-wide data, which is not disaggregated on a question-by-question basis for individual colleges, was available as of this writing only for the first University-wide final exam in Fall 2012. Nevertheless, question-by-question analyses do permit some conclusions. The following discussion highlights learning outcomes where student performance increased; those where student performance decreased; and those for which, because of the University's new exit standards, no comparative data are yet available.

### INCREASED PERFORMANCE

Factoring. While the Fall 2011 final exam assessment showed pronounced student weakness in factoring polynomials (28.4% correct response rate), both the Spring 2012 and Spring 2013 Departmental Midterms show dramatic improvement in that area (67% and 69% correct, respectively). However, as the Midterm is administered directly after this topic is taught, it may be that the improved student performance reflects short-term procedural absorption rather than long-term conceptual understanding (e.g., National Research Council, 2001). This interpretation is supported by the University-wide results, which reflect a success rate in this area of less than 60% (CUNY Office of Institutional Research, 2013). Thus, the increased factoring results on the Hostos Midterm, while impressive, are suggestive rather than dispositive of student improvement. Because college-by-college performance results on individual CEAFE questions are unavailable, analysis of our students' performance in this area at semester's end is not yet possible.

Inequalities. Hostos' pre-existing rubrics did not address this learning outcome, thus precluding a comparison of previous results on this topic. However, the 2013 Departmental Midterm shows student improvement over the 2012 Midterm from 38% to 45% (SLO #6, Table 1 above). The current result is in line with CUNY-wide performance on this rubric on the Fall 2012 CEAFE of 47%. This increase represents an improvement of over 18% (a 7 percentage point increase calculated as a percent of the earlier 38% performance). This result is particularly impressive in that the 2013 Midterm, unlike its 2012 predecessor, requires not only solving the inequality but also indicating the correct answer by selecting the appropriate graph,

thus making the question more difficult. Accordingly, while student performance on this new rubric remains low, the improvement is nonetheless worth noting.

## **DECREASED PERFORMANCE**

By contrast, student performance on questions involving operations with scientific notation fell from 42% on the 2010 Departmental Final under the pre-existing rubrics and 51% on the 2012 Midterm to 23% on the 2013 Midterm. The Fall 2010 question was not analogous, while the 2012 problem represented only a one-step rather than a two-step calculation. Thus, this decline in performance may be attributable to the increased degree of difficulty introduced for this learning outcome by the new standards, which require a two-step analysis for a result written in scientific notation. (For example, the fraction produces the quotient, which must be transformed to in order to reflect scientific notation.) For purposes of comparison, CUNY-wide performance on this learning outcome averaged only 27.8%, the least successful result of the 25 questions on that exam. Thus, Hostos' 23% performance rate, while needing improvement, is not out of line with the CUNY-wide results.

## **OUTCOMES NOT PERMITTING CURRENT COMPARISON**

Two areas not addressed in the two previous assessments are word problems involving proportions and percent increase and decrease (SLO #4, Table 2).

Proportions. As this learning outcome was introduced by the 2012 CUNY-wide standards, it was not addressed by either of our previous assessments. Thus, no comparative data are available. Current student performance (at 54% and 60% on questions 4 and 9, respectively) meets the pre-CEAFE Departmentally-established criterion for satisfactory performance (50-59%). Subsequent assessments under the new exit-standards should present a clearer picture.

Percent Increase and Decrease. The same is true of the new two-step percent increase and decrease problems, which require finding either a new amount and then the percent change, or finding the percent change and then the new amount (Questions 10 and 12, respectively). Again, while student performance, at 55% and 57%, fell within the Departmentally-determined satisfactory range (50-59%), further monitoring is required.

### DEPARTMENTAL ACTIONS TO FOSTER IMPROVEMENT

Following CUNY's issuance of the new rubrics in January 2012, the Mathematics Department took the following additional steps in order to improve student performance:

- Updating the course syllabus and day-by-day teaching guide to keep all 30+ sections on track.
- Continuing revision of the Departmental Midterm to focus on the types of problems found on the CEAFE.
- Preparing new Departmental worksheets in both English and Spanish to reflect the emphases of the new rubrics.
- Preparing a new workbook for classroom use.

- Introducing and assessing supplemental instruction (group learning sessions led by an advanced student "peer leader"), from the Fall 2012 semester onward.
- Working toward a mandatory "multiple repeaters" section with additional support systems.

#### SUMMARY AND CONCLUSIONS

So far, the Department's most recent assessment shows the best student performance in factoring, at 69%, and the worst performance in scientific notation, at 23%. The latter result, which mirrors the CUNY-wide 28% correct response rate, apparently reflects the two-step aspect of the calculation. Finally, while student performance on the two new applications of linear equations (proportions and two-step percent increase and decrease problems) qualifies as satisfactory, analyses of student progress in these areas must await additional assessments. Until the University makes CEAFE item results available on a college-by-college basis, the Department plans to continue assessing student performance using the Departmental Midterm.

#### REFERENCES

- American Mathematical Association of Two-Year Colleges (2006). Blair, R. (Ed.), Beyond crossroads: Implementing mathematics standards in the first two years of college. Memphis: Southwest Tennessee Community College (amatyc@ amatyc.org).
- Cunningham, A.W. & Doyle, K. (2012). Spring 2012 Math 020 Midterm Assessment. NY: Hostos Community College.
- City University of New York Mathematics Panel Recommendations (January 2012). Elementary Algebra Proficiency Exam Topics, Fall 2011. NY: Author (generally circulated by email correspondence of January 18, 2012, and revised by email correspondence of April 23, 2012, with sample final examinations circulated August 21, 2012).
- City University of New York Office of Institutional Research (2013). CUNY Elementary Algebra Final Exam: Fall 2012 Item Results and Learning Outcomes Correspondence. NY: Author.
- Hostos Community College (2012, February). Institutional Self-Study Report. NY: Author.
- Hostos Community College Mathematics Department (June 2012). AcademicProgram Review. NY: Author.
- Hostos Office of Institutional Research (2011). Math 020 Fall 2010 Analysis of SLO's on Final Exam (revised, 12/1/11). NY: Author.
- Hostos Office of Institutional Research (2014, April). Student Profiles from Fall 2002-Spring 2014. NY: Author. Retrieved April 12, 2014, from http://www.hostos.cuny.edu/oaa/oir/PublicDocuments/StudentProfile.pdf.

- Middle States Commission on Higher Education (2007). Self Study: Creating a Useful Process and Report, 2nd ed. Philadelphia: Author.
- Middle States Commission on Higher Education (2006). Characteristics of Excellence in Higher Education. Philadelphia: Author.
- National Mathematics Advisory Panel (2008). Foundations for Success: The Final Report of the National Mathematics Advisory Panel. Washington, DC: U.S. Department of Education.
- National Research Council (2001). J. Kilpatrick, J. Swafford, & B. Findell (Eds.), Adding it up: Helping children learn mathematics, Chap.4. Mathematics Learning Study Committee, Center for Education, Division of Behavioral and Social Sciences and Education. Washington, D.C.: National Academy Press.

68

# ASSESSMENT OF OUR ASSESSMENT: A CASE FOR STUDENT PARTICIPATION

# Carolyn Steinhoff

"We consider knowledge to be a process of construction by the individual in relation with others, a true act of co-construction," states Carlina Rinaldi, a leading educator of internationally recognized preschools in Reggio Emilia, Italy, in her book *In Dialogue with Reggio Emilia* (25). In 2003, as part of my work on my self-designed Masters in Education through Goddard College, I studied and toured some of the more than forty schools in Reggio Emilia. They are profoundly inspiring, and I draw on what I learned there every day. Among the many principles that

guide them, a central one is participation.

Many studies show that the Italians' principle of participation has a basis in science—neuroscience, to be precise. In order to learn, neuroscientists are telling us, students need to participate, with teachers and with one another, in making choices about their learning. Eric Jensen is one of the growing number of educators who embraces what is often called "brain-based learning." One of the books Jensen has written for teachers, about how to facilitate "learning with the brain in mind," is Brain-Based Learning. In a section titled "Tight Teacher Control," Jensen discusses "Choice Theory" developed by William Glasser. The William Glasser-US website quotes Glasser as saying, "External control, the present psychology of almost all people in the world, is destructive to relationships. When used, it will destroy the ability of one or both to find satisfaction in that relationship and will result in a disconnection from each other. Being disconnected is the source of almost all human problems such as what is called mental illness, drug addiction, violence, crime, school failure, spousal abuse, to mention a few" (italics mine). Applying choice theory to teaching, Jensen cites Renate and Geoffrey Caine (1994): "...[E]xcessive control by teachers actually reduces learning" (112). Glasser articulates something we all know from our own experience, that the more people feel controlled, the more resentment they feel. No matter how students handle feelings of resentment, whether they express or repress them, when their brains are focused on managing these feelings, they cannot focus on the arduous and exhilarating work of learning.

In thinking deeply about a subject, I want to move between micro-and macro-focus. Jensen claims we need both in order to learn. Brain-based learning is a micro-focus on what happens inside our skulls when we learn. Of course as educators, we should pay close attention to that. I also want to step back and look from a distance, to "macro-focus" on the endeavor of education as a whole. What is education? Why do we do it? On what basis do we do it? Paolo Freire, John Dewey, and many others, including the educators in Reggio Emilia, have investigated this question. Freire coined the term "banking education" to describe a one-way, teacher-controlled student-teacher relationship in which teachers misguidedly conceive of learning as filling students' empty heads with knowledge the way we deposit money into our bank accounts.

But I am not one to simply accept theories, unless I see their validity borne out in my own experience. I see the truth of the value of student participation confirmed every day in the classrooms in which I teach. I strongly believe that teachers' relationships with students, and students' relationships with one another and their teachers, are the center of students' learning. So, my own professional development focuses on learning about and reflecting on what those relationships need to be, and what I can do to make them better, with the hope that students will learn more. In this article, I want to focus on assessment, in the context of student participation.

In another of Jensen's books, *Turnaround Tools for the Teenage Brain*, he discusses "basic commonalities in ... students' process of selecting and implementing success strategies: the student acknowledges the need for success strategies; the student evaluates old strategies, and selects new ones if needed; the student implements the strategies for a sustained amount of time; the student evaluates the effectiveness of the strategies; the student makes adjustments as needed" (12). This is a beautiful description of a rigorous assessment process. The subject of these sentences is worth noting: "the student." Students should participate, in making decisions about their own learning, and in assessing their own learning.

I want to macro-focus on assessment. What is assessment and why should we do it? Assessment is at the heart of what educators do. Our education systems are built on the foundation of grading—which literally means sloping—ranking students in relation to each other according to who is best, better, less good, worst. Our system instills in us the conception of evaluation, of assessment, as grading. Everything we do rests on this system. Grading is seen as a way to prove quantitatively that a student is measuring up to our standards and expectations. Grading is the way we make students "perform."

This conception, and the structures and practices that grow from grading, cause us many problems, including the fact that grading enforces a destructive relational dynamic of competition rather than collaboration between students in a classroom. But the problem I want to focus on here is that grading is one-way, a power game, a potent form of coercion. Grading sets up a relationship between teachers and students in which we educators are insiders, the keepers of the standards, while students are outsiders clamoring to be brought in through achieving, living up to, proving themselves according to our demands. As long as we grade, we hold great power over students' lives. As long as we grade them, we are not allowing students to participate in their own education. They are subject to our power over them. This is the taproot of the problematic power-relational dynamic we all

struggle with in classrooms every day. It leads to both passive and active expressions of resentment by students, which we as teachers are then forced to spend our time

and energy trying to counteract, instead of focusing on learning.

Now for some "micro-focusing" on the topic. What does the word "learn" mean, in brain terms? I embrace the definition of brain-based educators, who define learning as being able to remember and use knowledge gained whenever we need it, whether it is a day, a month, or five years after we learned it. How big a role does learning, defined this way, actually play in our thinking and practices? How often do we educators talk or think or care about whether our practices result in learning? If evidence in the form of student "performance" proves students are not learning, do we change our ways of teaching? Unfortunately not, because we most often focus on how we can further and more completely control students' actions in response to this knowledge.

In colleges I teach and have taught in, teachers and administrators talk about how many latenesses and absences students have. We talk and care about whether they do the homework we assign. We care about the attitude and behavior they exhibit in our classrooms. We care about the scores they receive on standardized tests they are required to take in reading and writing, scores we give them on end-of-semester standardized tests. We discuss what level of class they can move into when they finish with our programs. In formal meetings and in informal conversations, we discuss aspects of all these things we care about. But we do not discuss student learning. Yet do any of these aspects of the work that we care about, accurately assess

or evaluate students' learning?

It might seem that the essay students write for a test administered at the end of every semester should be at least a fairly accurate picture of how well they have learned to write, how much grammar they have learned, and so forth. Let us examine this assumption. In some programs, students write a complete essay in a time period we allot, often 90 minutes, in conditions we enforce—silence (no discussing with or getting help from classmates or the teacher), no use of devices such as online translators or dictionaries or grammar and other websites that they use effectively to help them write at all other times.

Like so many teachers of language, I have been writing (and reading) virtually my entire life. I am a published writer of nonfiction and poetry. Even when I had deadlines as a freelance writer, I needed a span of time through which to access sources, which included a full range of interviews, entries on Facebook and Wikipedia and tabloids and other websites as well as magazines and scholarly journals. I needed time, even if it was an hour, to ponder. I had to talk with friends about my topic, to take notes, write a rough draft, let it percolate, come back to it with fresh eyes, revise it, revise it again and again, get writer friends to give me feedback, proofread it, get more feedback, before I sent a final draft to a publisher.

If I need these things, how much more do students not fluent in the language in which they are writing need them? Brain research backs up this need. Learning happens in a series of recursive stages, each of which must take place. The process of writing is a process of learning—learning about our topic, through research, and through writing to think—learning—constructing—what we think as we write for readers. When I take the test myself, and try to write an essay in 90 minutes, I end up with an illegible mess of arrows and cross-outs. What are we assessing? Students'

ability to follow a set of prescribed steps we teach them to do in order to boost their test score? If so, that is not writing. By test preparation, we are so much of the time instilling habits and practices in students that they will have to forget, if they are ever to really do the scary, open-ended, chaotic, creative work of writing. We are evaluating their ability to perform steps we have made them memorize within a short time after they have memorized them. Will they remember or care about these steps next month or next year? Do these steps promote deep thinking, critical thinking, caring about subjects, curiosity, motivation, self-discipline—any of the actions and mindsets that actually express learning? I submit that they do not. I submit that there are more effective ways to assess students' learning, ways based on student participation.

People are born learning. We are learning creatures, from birth to death. No one has to be forced to learn. We are learning all the time in order to survive. And no one likes to be told what to do and not have a choice about it. Students, like all other people, want to learn, and need to learn in order to survive. Students, like all other people, like ourselves, crave the ability to take part in decisions that have a strong impact on their lives.

Applying this thinking to assessment, we should participate with students in articulating goals and strategies—what they want to learn, why, and how they will learn it. Then, we should use goals students articulate as the basis for participatory assessment of their learning.

I invite you to question the assumption, the paradigm, that it is our job to decide and to control what students learn. Yes, we are teaching particular classes in particular subjects, with specific goals and objectives. But because students have signed up for the course or program, they have already exerted choice and agency. We should start there and build on that. Even if our course is a required course, students, like all people, do want to learn, and are learning all the time. Do we want to continue teaching them what they have been learning in school, how to pass tests and get As? Or do we want them to learn new, deeper knowledge, critical thinking, information, and perspectives? Within the framework of our subject, we can ask students to tell us what interests them. Working together, we can design goals for how each unique person in our classes can move from where he or she has begun to where he wants to be at the end of his special time with us. We can engage all our students in assessing their own progress toward that end.

Learning goals and assessment must be intertwined. All human beings have questions about the world, about their lives, that the content of our courses can help them answer. We can invite and facilitate students' posing of these burning questions. We can approach and explore students' questions with them, using the vocabulary and mindset of our discipline or subject as the lens. Students also have specific questions about our course, about what they need to know from our course in order to get good grades in other courses.

Students are in remedial programs because they failed the CUNY entrance tests. These programs are ways CUNY helps them increase their fluency before they take the tests again. Students in these programs need to know English as a starting point for all the aspects of their lives in this country. Our work is to facilitate their making the connection between that pressing, large, general goal of theirs to the

specific areas of reading, vocabulary, grammar, and writing that they need in order to pass the CAT Writing and Reading tests and begin their college studies.

When students have questions, they have learning goals. "How can I learn English?" can be turned into a self-focusing lens, to become "I need to learn English grammar, and be more aware of what verbs agree with what subjects in sentences"; "I need to learn to find connections between texts and write clearly about them"; "I need to develop my ability to think and write critically about texts." Such declarations reflect the skills required to pass the CAT-W.

If students tell me they need to learn these things, I can take part with them in them learning them. In *Turnaround Tools for the Teenage Brain*, Jensen recommends Backwards Goal Design (137). We begin by articulating a "big dream." Next, we connect that dream to our long-range goals. We then create goals with specific outcomes. We create intermediate steps we will take to move toward those outcomes, then we create goals for this week. Finally, we create goals for today, which will take us one step closer to our big dream. I implement a version of this strategy with students each semester. With my guidance, students create Learning Goals, and they use those goals to measure their progress each week, at midterm, and at the end of the semester. I then also invite students to identify a goal each day, and I check in with each of them at the end of the day when each one talks briefly about whether or not and in what ways they have met or have not met their goal.

I continue to evolve and refine my methods, and do not claim to have the most effective ones. I offer this account of my own thoughts and practices, not because I feel they are in any way ultimate or authoritative, but in the spirit of sharing what I care about. I am in an ongoing process of learning. Let us continue to reflect on and question together how, and why, we do what we do. Let us assess our assessment and our teaching as we continue our own learning throughout our lives.

#### REFERENCES

- Jensen, E. (2013). Turnaround tools for the teenage brain. San Francisco: John Wiley.
- —. (2008). Brain-based learning: the new paradigm of teaching. Thousand Oaks, CA: Corwin.

Rinaldi, C. (2006). In dialogue with Reggio Emilia: listening, researching and learning. New York: Routledge.



# ENHANCING STUDENT RESPONSE TO ACADEMIC STIMULI IN A COMMUNITY AT RISK

### Linda L. Ridley

Understanding the stimuli that drive student behavior is essential for effective teaching.

Student engagement is enhanced by the comprehension of those core issues that inform success.

Any professor in Business brings industry expertise into the classroom to optimize the student's learning. In addition to my teaching, I am the CEO of an international management consulting firm. Using the discipline of cognitive semiotics and a cutting edge management concept that we implement, we focus on change management and the many aspects of behavior that come into play during the change process. Our intention is to achieve a multidisciplinary approach, transcending what Goldberg (2002) calls an epistemological hybridity (pp. 29-30).

Our sole objective in our teaching practices is to enhance student learning through the introduction of critical thinking. Notwithstanding those exceptional Honors students that can be found here and there throughout the disciplines, how do we get all students to think critically? As importantly, when teaching undergraduate students from communities at risk, often for whom English is a second language, it is important to reinforce the reality that such a student population is uniquely positioned to lead the demographic shift that we are currently undergoing in this nation. Indeed, many of these students are immigrants from multiple countries around the world. We faculty can lead the national academic community in creating change by collectively conveying to our students their potential for greatness. But what are we up against?

We must first reflect upon and question our own teaching practices. As educators, I would suggest that it is important for us to understand the dynamics of symptoms and symbols on the thinking process and behavior. According to Jung (1964), "a word or image is a symbol, when it implies something more than its obvious and

immediate meaning. A symbol is anything that implies, in any way, something more than is obvious and immediate in the casual observer" (p. 21). Further, Ridley (2001) tells us "Symbolism is used to mythologize history, manipulate behavior, and set in motion a way of thinking that creates the phenomena of racism, neurosis and other forms of mental illness. Symbolism, through its mythological content, has caused the distortion of scientific facts. Nothing can be accomplished by thinking symbolically. Our decisions should not be made from mythological assumptions. A thoroughgoing, careful reading of history tells us that it is only when we are not able to face the realities of life that we tend to mythologize and distort anything and everything that we do not want to be true. Symbols produce myth, superstition, and ritual, and these elements cannot be allowed to stand if we are to progress" (pp. 5-6).

Fortunately, our consulting platform of change management is most useful for classroom pedagogy. Our proprietary management concept, titled a Symptomatic Thought Process °, pioneers a shift in thinking by focusing on changing the mindset for behavior transformation, and it is revolutionary. This change in mindset goes beyond symbolic thinking, eradicating it, and introduces a symptomatic thought process. We have successfully implemented this change concept with client management teams throughout Asia, Africa and Europe. But how do we introduce this approach into the classroom?

As a type of dialogic inquiry, admittedly unscientific, I explored the outlook of students toward their school, their environment, and even their self-awareness, using a traditional approach known as root cause analysis. Although this approach is commonly used in production environments, we consultants find the process highly useful for assessing symptoms and discerning cause and effect. What I found was that the students' feedback indicated a particular tendency to think symbolically – indeed, the themes were consistent. Students expressed significantly reduced self-esteem; low regard for their institution with an unrealistic view of higher-level institutions, and shame in terms of their English proficiency:

- The reason I don't speak up in class is because other students make fun of my accent.
- · Studying is not that important here; it's only a two-year school.
- · Four-year schools are superior; I'll wait til I'm there to really engage.
- · I'm not as good as students at other schools—that's why I'm here.

Indeed, it is commonly accepted by all scholars that there are only two ways of thinking and behaving: symptomatically or symbolically (Ridley, 2008, p. 122). When our students think symbolically, such thinking serves only as a reinforcement of the unfortunate stereotypes applied to this student population. We want to get them to think symptomatically. As Ridley (2008) tells us, "When one thinks symptomatically, one is led by the symptoms of one's experience. Instead of mythologizing, one reads the symptoms of their existence like a language, to which they respond accordingly. This means they do not mythologize the events in their life, nor do they approach their life with a symbolizing attitude (p. 140).

I found it important to remind students that anyone speaking English as a second language is at least bilingual, if not multilingual. Research by Marían and Shook (2012) has shown that individuals with bilingual capabilities not only pay

closer attention to content but also switch tasks better than those who speak one language.

As teaching methodologies have evolved, an applicable approach has been that of "flipping the classroom". In such an environment, the instructor utilizes technology to facilitate learning outside the classroom, thereby liberating classroom time for fertile discussion, inquiry and reflection. Through videos posted on learning management systems such as Blackboard, students can access the content at their own speed. The result is amplified student engagement in the classroom, as they transition from passive learning to increased interaction with the instructor.

An effective approach toward changing student behavior was to challenge first-year students with a semester assignment on immigration. Surprisingly, the students had up to then little if any engagement around the subject matter, even though many were indeed living the experience. Their mandatory deliverable was to take a position on the pending immigration legislation and defend their point of view. Their subsequent research enabled them to identify and link the potential economic benefit gained by the contribution of the many undocumented workers in our population. Naturally, this assignment provided an illumination not experienced previously – the students gravitated towards the content with enthusiasm, including personal stories of themselves or family and friends.

An additional teaching moment was to invite students to link their classroom inquiries into ad hoc, extra-credit presentations as a way of having their question answered. This activity, of "flipping the classroom", led students down an unexpected path of research and investigation that they had not done before, including preparing and presenting presentations to educate the entire class - and the professor! Very importantly, the students' lack of self-confidence and general lack of self-esteem was significantly and collectively diminished.

Assignments were accompanied by full-semester messaging regarding the students' potential for capitalizing on the nation's changing demographics. Emphasis is always placed on diminishing and/or eliminating the tendency to think symbolically, which hinders learning. The outcome is a strengthened resolve to overcome future obstacles in school and in life.

Although having students complete presentations and semester papers is a short-term win, this kind of curricular planning sets the stage for the heavy lifting that comes in throughout the entire program and beyond, as all faculty collaborate with one another to provide a consistent push for success.

#### SUMMARY

For a true 21st century teaching and learning environment, professors are advised to:

- Implement the Symptomatic Thought Process (STP) to confront inappropriate stereotyping and unfortunate belief systems (also known as symbolic behavior).
- Remember that the Symptomatic Thought Process (STP) offers the objective to "see things as they really are void of superstition or mythological assumptions" (Ridley, 2008, pp. 137-139).

- Discontinue symbolic thinking poor outcomes should be evidencebased, not imaginary. Symbolic thinking is a learned activity; it is not innate to the human brain.
- Practice thinking symptomatically be acutely mindful of the potential for deeper engagement with ESL learners. Symptomatic thinking is natural, it is innate to the human brain.
- · Do not assume silence infers lack of knowledge.
- · Be creative with the construction of pedagogy
- · Flip the classroom to intensify engagement and encourage enthusiasm.

#### REFERENCES

Goldberg, D.T. (2002). The racial state. Oxford, UK: Blackwell.

Jung, C.G. (1964). Man and his symbols. New York, NY: Doubleday.

Ridley, E.J. (2001). Symbolism revisited: notes on the symptomatic thought process. Trenton, NJ: Africa World Press.

Ridley, E.J. (2008). The golden apple: changing the structure of civilization. Trenton, NJ: Africa World Press.

Viorica, M., & Shook, A. (2012, October 31). The cognitive benefits of being bilingual. The Dana Foundation.

### DEVELOPING STUDENTS' QUANTITATIVE REASONING BY IMPLEMENTING E-PORTFOLIOS IN THE CHEMISTRY 210 CLASS FOR SCIENCE AND ENGINEERING MAJORS

Nelson Núñez Rodriguez, Na Xu, and Francisco Ordóñez

#### ABSTRACT

E-portfolios were implemented in the Chemistry 210 laboratory in order to develop students' scientific writing and quantitative skills. We designed an e-portfolio to host three lab reports, three-revised lab reports, three reflective statements, a final case study and a final reflective report for the laboratory class. At the end of the semester, all writing pieces were evaluated and analyzed based on the developed rubrics. Our analysis shows that implementing e-portfolios and developing a guided revision of lab reports improved students' scientific writing and quantitative skills.

#### INTRODUCTION

Competency in writing and quantitative skills is essential for college graduates regardless of their specific majors. In the biomedical field, the competiveness for research funding revolves around memorable pieces of scientific writing (Day, 1998). Science major classes at community colleges, and specifically the lab component, are critical venues for the development of these skills. Students should be exposed to meaningful experiences integrating writing-to-learn and learning-to-write practices during their first college years. In this regard, the revision of lab report writing appears as a vehicle toward strengthening scientific writing and quantitative skills in college Chemistry classes. The development of these skills also requires teaching approaches that embody different learning styles. Current students learn in different ways as they use curricular and extracurricular avenues such as the Internet and social media (Bass, 2012). On this subject, the electronic portfolio (e-portfolio) has been described as a venue integrating learning inside and outside classes (Bass, 2012), and may be considered as a way to document the progression of student learning throughout several science classes.

The word portfolio originally meant a large thin flat case for loose sheets of paper such as drawings or maps. The use of e-portfolios in education began in the late 1980s (Barrett, 2007) and spread to wide practice in the late 1990s (Wade and Yarbrough, 1996). Since then, the use of e-portfolio has become increasingly popular (Bartlett, 2002; Penny and Kinslow, 2006; Lowenthal, 2011). An e-portfolio is a collection of "electronic" evidence assembled by students, faculty members or institutions to enhance the effectiveness of learning, to assess learning outcomes and to demonstrate competence to external stakeholders (DiBiase, 2002). The e-portfolio represents an important experiential learning approach that documents a process of planning, tracking, collecting and sharing the evidence of learning and performance. There are numerous advantages in applying the e-portfolio in the classroom and students' academic life, and in promoting their reflections during the learning process. The e-portfolio has helped students become proactively involved in their academic planning and performance. The e-portfolio also helps students to land a job after graduation because it provides students an opportunity to share their work with potential employers (Strudler and Wetzel, 2005; Ward and Moser, 2008; Lin, 2008; Strudler and Wetzel, 2008).

Not only is the e-portfolio beneficial for students, but it also can be of great use to faculty members. With e-portfolios, professors are able to motivate students and help them to collect and disclose authentic evidence of learning outcomes as well as promote the quality of communication between students and faculty members and among students themselves. The e-portfolio also helps to align students' learning outcomes with faculty members' evaluation and assessment strategies (Strudler and Wetzel, 2008). As the e-portfolio can help faculty to evaluate and assess what students have learned in previous classes, it also helps faculty to design their syllabi and build on students' previous knowledge and skills. The e-portfolio has been described as a "got to have it" tool for higher education (Treuer and Jenson, 2003; Cohn and Hibbitts, 2004; Love et al., 2004). An increased number of colleges and universities, such as Pennsylvania State University, Stanford University, Florida State University, and Pace University, has implemented e-portfolios into their programs.

E-portfolios also provide a nexus for discussions of ownership of digital material. Students engage in traditional questions regarding citations and argumentation by using other writers' material and have at the same time a venue for considering themselves as emerging authors. Their authority becomes a site for contested knowledge production as they question who owns what and how such ownership is determined. With their digital identity, their own and that of others, the e-portfolio becomes a site for exploring an expanded notion of ethos as students create differing online identities to meet the demands of specific situations and come to understand at the same time how their reputations as authors help or hinder the arguments they wish to make (Clark, 2010).

The e-portfolio has been described as "student-centered" and "competence-centered". We have aimed to reflect both approaches when implementing e-portfolios in a Chemistry class for Science majors at Hostos Community College. For that class, we focus on documenting students' learning progression and skill development, which will undoubtedly benefit Science students in the future. Our goals of applying e-portfolios are the following: 1) to develop analytical and quantitative reasoning skills; 2) to improve scientific writing skills; 3) to develop within students

themselves a self-assessment culture; 4) to improve online publishing skills; 5) to explore the development of the e-portfolio in Chemistry 220 as a tool with which to further assess skill development; 6) to encourage a broader application of e-portfolios in other classes at Hostos Community College. Overall, this practice has been developed as part of a NIH-IRACDA grant awarded to Albert Einstein College of Medicine at Yeshiva University in partnership with the Biology Department at Lehman College and the Natural Sciences Department at Hostos Community College. This initiative, which hopes to produce a positive impact on the science curriculum in institutions serving minorities, also provides teacher training to research postdocs (IRACDA scholars) from Albert Einstein College of Medicine.

#### METHOD

The e-portfolio was designed to host three lab reports, three revised lab reports, three reflective statements, a final case study and a final reflective report for the Chemistry 210 laboratory class during the fall 2013 semester. A total number of 23 students were assessed. First, students received guidelines and evaluation rubrics (Appendix A) at the beginning of the semester. Students were informed about the objectives of implementing the e-portfolio in this course. They attended one general e-portfolio workshop organized by the EdTech office and one specific e-portfolio workshop tailored to meet the class's needs. During this workshop, students set up their e-portfolio accounts and created a tab for Chemistry 210 class artifacts. Students allowed the Chemistry 210 professor to have access to their e-portfolio folders. Three of the 12 lab reports students wrote during the term were revised. Each student uploaded an original lab report, a revised lab report considering instructor comments to original lab report and a third piece including learner reflections based on hands-on experience and revised writing process. Students received written guidelines for both the initial and revised versions (See appendices A and B). At the end of the semester, each student wrote a final report based on a new case study designed by the professor and the IRACDA scholar. Some students also gave oral presentations of their e-portfolio journey to the class. Their ability to analyze and evaluate quantitative data was assessed in all these artifacts.

#### RESULTS

For the three labs in the fall 2013 semester, Separation of Mixture lab, Chemical Formula lab and Titration lab, the first lab reports and the revised lab reports were collected and evaluated based on four questions (Figure 1). For the first lab reports of the Separation of Mixture lab, students made an average of 0.77 times of informed judgment based on quantitative analysis (Q1). An average 0.8 times of these judgments was reasonable or correct (Q2). The frequency of making informed judgments almost doubled after revision and almost all of these judgments made sense. Students recognized their mistakes and the limitations of their analysis (Q3) for an average of 1.2 times in the first reports. After revision, the recognition of the mistakes and limitations increased from an average of 1.2 times to an average of 2.1 times. During the lab report writing, students included their personal feelings in their lab reports (Q4) for an average of 0.5 times before and after revision. Our analysis indicated that using e-portfolio and guided lab report revision helps

students to make more informed judgments based on quantitative analysis and to scrutinize their mistakes, indicating the development of the quantitative skills in scientific writing.

Similar results were observed in the Chemical Formula labs. Students made an average of 0.9 times of informed judgment based on quantitative analysis (Q1) in their first lab reports. After revision, students made an average of 1.3 times of informed judgments. The correctness of these judgments (Q2) increased from an average of 0.75 times to 1.5 times after revision. Students also were able to recognize 4 times more mistakes and the limitations of their analysis (Q3) after revision. During the Chemical Formula lab, the students included their personal feelings less frequently in their revised lab reports as compared with the first lab report. The improvements of making correct informed judgment (Q1 and Q2) and identifying mistakes (Q3) through lab revision were not obvious during the Titration lab report revision. However, we did observe that students included their personal feelings (Q4) less frequently in their revised lab reports for the Titration labs.

The three revised lab reports are part of a 12-lab report sequence. The Separation of Mixture one is the third lab report they wrote, the Chemical formula was the fourth one and the Titration lab was the eighth one in the 12-lab report sequence. Students received comments for the non-revised lab reports as well; thus, these comments could have contributed to the improvement throughout the semester that was shown in the revised narratives. We observed an increase in students' informed judgments (Q1 and Q2) when we compared the first lab reports for three labs throughout the semester, suggesting a development of quantitative skills in scientific writing throughout the semester. Together, our analysis indicated an improvement of students' scientific writing and quantitative skills by using e-portfolios, guided lab revisions, and reflective statements.

- Q1: How many times does a student make (or attempt to make) informed judgment based on quantitative analysis?
- Q2: How many times is that judgment correct or reasonable?
- Q3: How many times does a student recognize mistakes or the limitations of the analysis used?
- Q4: How many times does a student include personal feelings in the lab report writing?

Figure 1: Quantitative reasoning progression in Science students before and after revising lab reports. The numbers in the red and blue bars indicate the number of students providing the original and revised lab reports. Students improved their capacity to evaluate results and decrease their tendency to include personal feelings in their scientific narratives.

#### DISCUSSION

This first attempt to implement e-portfolios in a Chemistry class for Science and Engineering majors has been a learning experience for both students and faculty

alike. Students have embarked upon a reflective process about their learning. The fact that students have had to upload their artifacts, revise them and reflect about them opens up a new learning dimension for students. Students can also share their e-portfolios with their classmates. Such sharing brings to the fore a panoply of multifaceted ways of learning through the photos, videos, and mind maps that students use to document their own learning progress. As they upload, reflect upon, and follow the guiding questions, they are able to focus on a new lens to the learning experience. Moreover, as they interact with each other, this online participatory culture is becoming fast and furious quite a familiar form of learning for students in this online social media era. It also adds playfulness to the learning process and opens up the possibility of enhancing students' engagement in the science classes while at the same time connecting the content of the Chemistry, Math and Physics classes. Some students uploaded artifacts from these classes and co-curricular activities in the e-portfolio and reflected about them. Indeed, it is obvious that the e-portfolio structure, which integrates the content of different courses and allows students to reflect upon and identify different aspects of the curriculum, co-curriculum, and the external world in their artifacts, has strengthened students' learning and engagement (Keefee and Donnelly, 2013).

This e-portfolio practice has also opened up a new realm for faculty who need to create assignments that measure the progress of student learning and allow them to evaluate this progress and reflect upon it. Using e-portfolios as evidence of student learning progress therefore requires the mutual understanding of all faculty members that learning is on a continuum. In this regard, the e-portfolio has forced us to revise lab revision guidelines in order to enhance the role of disciplinary writing in the development of scientific skills. Overall, this may be another avenue on which to explore curriculum coherence and connection as students naturally begin connecting Chemistry lab report revision with technical writing for their Engineering (ENG202) assignments. Students' ownership of e-portfolio unleashes learning possibilities beyond specific classes and creates intentional learning moments when students make decisions about uploading different artifacts. It is a faculty and institutional role to develop a comprehensive structure to help students document their learning progress. On this matter, the e-portfolio system based on course gates shows a model requiring resources, expertise and a comprehensive institutional approach that can be used to embark students, faculty and administrators upon a practice that allows them to assess student learning at individual, class, program and institutional levels (Lowenthal et al, 2011). On this subject, this first attempt in Chemistry class makes us consider exploring how different angles of Science and Engineering programs can be documented if students begin developing an e-portfolio as early as Pre-Calculus, the gate course of the engineering program. Students could document their progress through pre-Calculus, Calculus I, II and III while at the same time documenting and reflecting upon their progress in Chemistry, Physics and Technical Writing (ENG202) courses. Exploiting this learning dimension will also help to understand the role of the co-curricular activities that foster learning in this post-curricular learning era (Bass R, 2012).

To conclude, the e-portfolio can be a platform for documenting both students' academic experience and program evidence in order to develop other internally and externally funded initiatives. Indeed, recent evidence suggests that e-portfolio

implementation has enhanced the critical transition of STEM students from the community college to senior colleges (Singer-Freeman et al, 2014). Because these systematic e-portfolio initiatives require an articulated effort of students, faculty and administrators that integrates the different layers of the learning process across the curriculum (Lowenthal et al, 2011), this holistic approach may create a right tide in the waters which the STEM disciplines at community colleges are navigating today.

#### REFERENCES

- Barrett, H.C. (2007). Researching electronic portfolios and learner engagement: the REFLET initiative. *Journal of Adolescent and Adult literacy*, 50(6), 436-449.
- Bartlett, A. (2002). Preparing pre-service teachers to implement performance assessment and technology through electronic portfolios. *Action in Teacher Education*, 24(1), 90—97.
- Bass, R. (2012). Disrupting ourselves: the problem of learning in higher education. *Educause Quarterly*.
- Clark, J.E. (2010). The digital imperative: making the case for a 21st-century pedagogy *Computers and Composition*, 27, 27–35.
- Cohn, E. R., & Hibbitts, B. J. (2004). Beyond the electronic portfolio: a lifetime personal web space. *Educause Quarterly*, 27(4), 7-10.
- Day, R.A. (1998). How to write and publish scientific papers. Mem Inst Oswaldo Cruz, Rio de Janeiro, 93(3), 423-424.
- DiBiase, D. (2012). Using e-portfolios at Penn State to enhance student learning. E-education Penn State University.
- Lin, Q. (2008). Pre-service teachers' learning experiences of constructing e-portfolios online. *Internet and Higher Education*, 11(3-4), 194-200.
- Love, D., McKean, G., & Gathercoal, P. (2004). Portfolios to webfolios and beyond: levels of maturation. *Educause Quarterly*, 27(2), 24-37.
- Lowenthal, P. R., White, J. W., & Cooley, K. C. (2011). Remake/remodel: using eportfolios and a system of gates to improve student assessment and program evaluation. *International Journal of ePortfolio*, 1(1), 61-70.
- O'Keeffe, M. & Donnelly R. (2013). Exploration of eportfolios foradding value and deepening student learning in contemporary higher education. *International Journal of ePortfolio*, 3(1), 1-11.
- Penny, C., & Kinslow, J. (2006). Faculty perceptions of electronic portfolios in a teacher education program. *Contemporary Issues in Technology and Teacher Education*, 6(4), 418-435.

84

- Singer-Freeman, K., Bastone, L., & Skrivanek, J. (2014). Using e-portfolios to support transfer student success. *Diversity & Democracy*, 17(1).
- Strudler, N., & Wetzel, K. (2005). The diffusion of electronic portfolios in teacher education: Issues of initiation and implementation. *Journal of Research on Technology in Education*, 37, 411-433.
- Strudler, N., & Wetzel, K. (2008). Costs and benefits of electronic portfolios in teacher education: faculty perspectives. *Journal of Computing in Teacher Education*, 24(4), 135-142.
- Treuer, P., & Jenson, J. D. (2003). Electronic portfolios need standards to thrive. Educause Quarterly, 26(2), 34-42.
- Wade, R.C., & Yarbrough D.B. (1996). Portfolios: A tool for reflective thinking in teacher education? *Teaching and Teacher Education*, 12(1), 63-79.
- Ward, C., & Moser, C. (2008). E-portfolios as a hiring tool: Do employers really care? Educause Quarterly, 31(4).

#### APPENDIX A: LAB REPORTS OUTLINE AND RUBRICS FOR ASSESSMENT

#### Introduction and Objective

Introduction: It represents a theoretical background based on facts supporting the experiment's objective. It is also based on the importance of conducting this experiment (No more than one or two paragraphs at this level).

Objective: A statement of intent or purpose of the lab. It answers the questions: What do you want to demonstrate in this experiment? Or, what do you hope to learn from this experiment? It has to clearly identify the purpose of the procedure.

Rubrics to evaluate the introduction and the objectives:

Clearly addresses theoretical background, the importance of research and the purpose of conducting experiment	25 POINTS
The above three aspects are present but one is not clear	20 POINTS
The above three aspects are present but at least two are not clear	15 POINTS
At least one of the above aspects is missing	10 POINTS
Fail to address the above to three above aspects	O POINTS

#### Materials and Methods

It describes actual materials used for your experiment. It should not be long but as inclusive as possible. It shall contain concisely organized information that allows the experiment to be replicated (methods). It contains sequential information in an appropriate chronology but avoids unnecessary wordy descriptions. The results and conclusion should not be anticipated. It needs to be in a flow chart format to better explain methodology, procedures and techniques.

#### Rubrics to evaluate materials and methods:

- Clearly and concisely describe the materials and the methods used for the experiments;
- 2. Allows the experiment to be replicated;
- 3. Contains sequential information in an appropriate chronology;
- 4. Avoids unnecessary description;
- 5. The material and methods section MUST be presented in a flowchart format.

The five above aspects are fulfilled	25 POINTS
The five above aspects are present but one is not clear or concise	20 POINTS
The five above aspects are present but at least two are not clear or concise	15 POINTS
At least one of the above aspects is missing	10 POINTS
Fail to address the above to five above aspects	O POINTS

#### Results (Obtained data)

It includes quantifiable and qualitative experimental factors and/or defines quantitative units of comparison. The lab manual sheet will help you with the expected information to be documented. Displaying results in tables and graphs with correctly labeled axes when appropriate is expected. Graphs and figures must be labeled with numbers and briefly explained. Information must appear in the text as well. Write down ALL the calculations you did to obtain your results.

#### Rubrics to evaluate results:

- 1. Clearly addresses quantifiable and qualitative experimental factors and/or defines quantitative units of comparison
- 2. Displays results in tables and graphs with correctly labeled axes, numbers, and explanations
- 3. Clearly and concisely describes the results in text, including all the calculations

The three above aspects are fulfilled	25 POINTS
The three above aspects are present but one is not clear or concise	20 POINTS
The three above aspects are present but at least two are not clear or concise	15 POINTS
At least one of the above aspects is missing	10 POINTS
Fail to address the above to three above aspects	0 POINTS

#### Discussion and Conclusions

Discussion: this is the most thoughtful and creative part of the research. Students shall explain results by comparing them with the expected ones. Sources of mistakes should be explained when discrepancies come up after this comparison. Inferences based on logical reasoning using quantitative data are expected. Students shall offer explanations of the results and potential further directions when appropriate. Data must be presented honestly, distinguishing facts and implications, avoiding overgeneralizations and feelings. Data shall support or deny the hypothesis (the initial objective).

Conclusion: a final statement supporting or denying the hypothesis based on the above results and discussion is expected.

#### Rubrics to evaluate discussion and conclusions:

- Clearly and concisely explains results by comparing them it with expected results; discusses sources of mistakes when appropriate
- Presents the data honestly, distinguishes facts and implications, and avoids overgeneralizations and feelings
- Makes a statement to support or deny the hypothesis based on results; includes a discussion.

The three above aspects are fulfilled	25 POINTS
The three above aspects are present but one is not clear or concise	20 POINTS
The three above aspects are present but at least two are not clear or concise	15 POINTS
At least one of the above aspects is missing	10 POINTS
Fail to address the above to three above aspects	O POINTS

#### APPENDIX B: GUIDELINES TO REVISE TITRATION LAB REPORT

#### Titration Lab Revision

Rethinking the Laboratory Discussion (One page summary)

- 1. Indicate Lab name, your name, professor name and class number
- 2. Include lab goal
- 3. Include results (in a table), use lab manual format
- 4. Rewrite your conclusions by discussing possible sources of discrepancy between both end point titration volumes. Can you please further discuss the KHP percent obtained result based on your titration volume?
- 5. Regarding the virtual lab, discuss the following items:
  - What are the main differences (advantages and disadvantages or virtual lab in comparison with wet lab (regular lab session)?

- What were the advantages of having a ph determination in the virtual lab and using a different indicator?
- What are the advantages and disadvantages of doing the virtual lab after the wet lab session?
- 6. Enclose the original lab

One-two page summary format:

- Lab Name
- Student's name
- Professor's name
- Class number
- Lab goal
- Lab results (in a table format)
- · Lab conclusion (a 200-300 word paragraph) is expected

### Grading (100%)

This summary grade will be part of your lab quiz grade (lab grade component).

This summary will evaluate your capacity to make judgments based on quantitative analysis of data (Quantitative Literacy).

90-100%	Including all required items and making informed judgments based on quantitative analysis data. Consistently draws appropriate conclusions from the data and recognize the limits of analysis used.	
80-90%	Including all required items and making informed judgments based on quantitative analysis of data.	
60-80%	Including all required items and making judgments based or quantitative analysis of data. Sometimes makes errors or draws unwarranted conclusions.	
60% and less	Attempts to make judgments based on quantitative analysis of data. Frequently makes errors or draws unwarranted conclusions.	

### AN EDUCATIONAL OASIS IN AN URBAN FOOD DESERT: SERVICE LEARNING IN EXPOSITORY ENGLISH

### Elyse Zucker

In the fall of 2013, I structured my Expository Writing class to become a venue for bringing together many people and divisions of the college and beyond in new and productive ways and combinations, and turned this section of English 110 into a paradigm of interdisciplinarity. My construction of the course proved conducive for getting students to be more deeply engaged with their studies, and discover much about themselves in the process. What I put into place to achieve these ends was a Service Learning component and, with the backing of the Grassroots Environmental Education organization (plus donations gathered from The Golden Earthworm Organic Farm, Orient Organics and two Whole Foods Markets) an on-campus farmers' market I called The Hostos Garden Market (HGM). Linking the Service Learning and the HGM was the theme of the course: agriculture and food justice.

The Hostos Garden Market (HGM) was piloted during Thanksgiving week, but my students spent the months that led up to that event doing research on the phenomenon of farmers' markets in relation to the topics they were assigned to explore. The students then shared key concepts they had learned with the Hostos and local communities.

Although the central focus of the class was agriculture and food justice, I assigned essays, articles and other materials that reflected different disciplines and perspectives in relation to that theme so that I could help to prepare my students to handle the variety of subjects they would need to take on their educational journeys. For instance, I assigned a chapter from Rachel Carson's *Silent Spring* to touch upon some fundamental ecological precepts (while teaching students about and how to write cause/effect essays), and an Alfonso Morales' article, "Growing Food and Justice: Dismantling Racism through Sustainable Food Systems," to direct students to consider how politics and racial subtexts can shape neighborhoods and food systems (while illustrating how to quote MLA style). Students also read such essays as Derrick Jensen's "Beyond Hope," Cathrine Sneed's "These Green Things" and an

excerpt from Thomas Hobbes' *Leviathan*, to examine critical thinking and argumentation in linguistic, philosophical, psychological and political-science spheres—and to make connections between these pieces, which all challenge oppressive societal conventions, prompting students to question food conventions and culture.

My desire to include a Service Learning component in my English 110 classes was initiated by a realization I had after teaching an extended curriculum unit on Environmentalism in relation to the self. What dawned on me was that teaching students about the dangers of environmental destruction did render them cognizant about the health of our planet but often, ironically, feeling too defeated to take action. I hoped that by incorporating Service Learning into my 110 classes, I might enable students to believe they could take control and make a difference for the better in our deteriorating milieu: a belief I feel the youth of today need to have to be proactive in handling global challenges. I had also hoped that perhaps the students could learn writing skills more effectively since most likely would become deeply involved with the content being studied. Service learning encourages involvement by extending the perimeters of the classroom and eliciting empathy, and I believed interest in pertinent content might inspire them to want to find more accurate ways to explore and express their thoughts. I know that interest in content is what had inspired me, during my own college years, to learn to improve my writing.

Of all the topics pertaining to Environmentalism that were of interest to me, I felt that agriculture in relation to food justice was of prime concern and accessible and would lend itself well to service learning. Coupled with the advent of a farmers' market, an exploration of the topic could provide opportunities to promote student empowerment. I was certain that I wanted to continue to teach Environmentalism in some capacity since feel strongly that everything we do and pursue is predicated upon the foundation we call earth, which must be cleaned up and taken care of, to continue to provide for us so that we can continue. Focusing on the topic of agriculture and food justice provided a window to show our students ways they could "think globally, act locally," since Hostos is located in a food desert, which is a geographic location, usually impoverished and inner city or rural, in which fresh, healthy foods are difficult or impossible to come by. The students visited the local milieu, took notes on it and questioned its residents about their awareness of foodrelated issues. Afterwards they followed up by "educating" those interviewed about food deserts, and suggested alternatives to patronizing them, such as shopping at The Hostos Garden Market or other farmers' markets.

After reading selections such as those mentioned above, and writing –at least two times per class—in response to the readings, students were ready to transition to their Service Learning research projects. This section of Expository Writing, however, was not an officially designated Service Learning section, so students had the option to work individually on a more traditional research project (giving assignment options is, in general, something I like to do since people learn in a variety of styles). If students chose to commit to the Service Learning research project, they would have to work in groups and do primary as well as secondary research and give a class presentation for which they would be assigned a group grade. That aspect of the project had to include a Works Cited page, MLA formatted, as well as a hard-copy submission of the presentation. In addition, these students were also responsible for writing a Reflective Piece for an individual grade. Finally, students were

required to help organize and operate The Hostos Garden Market, which counted as part of their Service Learning. In spite of knowing that the Service Learning project could encompass what might appear to be considerably more work than its counterpart option, every student in this class decided to partake in it, which right away said something to me about the appeal of both group and experiential learning, an appeal stronger than avoiding the amount of work that the Service Learning option intimated had to be accomplished.

For the Service Learning project, I offered a choice of five research topics and assigned one to five student groups. To determine which students would be assigned to which group, I asked all the students to list their first, second and third choices, and luckily was able to give everyone his or her first or second choice. For balance, I tried to make sure that each was comprised of both male and female as well as stronger and weaker students, and was able to accomplish this goal as well. These pieces in place started things off on a good footing for everyone. The topics on the table for exploration were: food deserts; processed vs. unprocessed food, agriculture vs. agroindustry; farmers' markets; and urban as well as community food projects.

Each group had to take its topic and identify a problem in relation to it. It then had to seek content that would answer, resolve and/or explain the problem. The groups could not choose a no-brainer thesis such as "Processed foods are bad for health" and had to research their topic in the context of its impact on local communities. The students had to frame their findings in a sociological, political, cultural or environmental context, which my lessons from the first half of the semester helped prepare them to do. For instance, in discovering that people who live in food deserts often do not know that they do, one group did research supporting the premise that the engines behind food desert construction target people too disempowered to challenge them. My goal was to have students take ownership of their projects and empower those in the community as well as themselves. They were instructed to take note, in their reflective journals, of the processes they partook in, as well as their responses to those processes. No matter the topic or findings, each group had to relate its topic in some way to the benefits and/or functions of farmers' markets and let people know about the upcoming Hostos Garden Market. This last requirement made the students feel connected to The Hostos Garden Market and inspired to organize and operate it, which they did help to do-along with students, faculty and staff from across the college. Connecting their topics of study to the HGM also facilitated their integrating the various pieces of the class into a cohesive whole.

For the primary research part of the project, each group decided —collectively—which questions its members would ask interviewees both at and outside of Hostos, and the group members self-identified by wearing their Hostos IDs in visible places and the tee-shirts bearing the Hostos logo Mr. Jerry Rosa kindly donated for them. The secondary, scholarly research each group did was based on the primary research they discovered, so they could best "educate" those in the Hostos and local communities about agriculture and food justice issues. To help students research their topics I provided articles and names of or links to articles and lent them relevant books from my own "environmental" library. Students shared their research by contributing pithy points to the class brochure, which they then distributed at the HGM and in some cases, emailed to community members who indicated they would not be able to come to the HGM.

I frequently consulted about this class with Professor Sandy Figueroa, chair of The Service Learning Committee, and our conversations led to collaborative efforts between her Business Communications students and my English 110 students. Professor Figueroa also divided her 200-level class into five groups, so that the Business Communications students could "mentor" my students by commenting on the accuracy of my students' writing and efficacy of their claims. Professor Figueroa and I shuffled the student work and feedback back and forth –via email—and after checking the comments myself, dispensed it to the right groups. Some students in each of our classes also visited the other's class, and students from both classes met again at the debut of The Hostos Garden Market, where they all partook in Service Learning.

Fate had it that the days the Hostos Garden Market ran were two of the worst weather days of the year; the first day the market was open was near unendurably cold and the second day was dominated by a gloomy and sleeting sky. Yet not one student complained about working in the inclement weather and all the students were eager to take their assigned places at the market and help run it. They sold, among other items, the organic soups and fresh vegetables that comprised the soups' ingredients, and they distributed the brochure to the Hostos and local community members who stopped by. The students were eager to sell the food and "sell" what they had studied all semester. Hours before it was scheduled to close, the HGM had, on both days, sold out of everything (to this day, custodians, officers and other Hostos people come up to me and ask when they can expect the return of the market).

After returning from Thanksgiving break (during which many students and their families ate HGM food), the students presented their group projects to the class. All the groups chose to create and narrate Powerpoint presentations and all the groups relayed how much they had learned about their topic. They also revealed, inadvertently, how critically and contextually they had begun to think. Many of the students' Reflective Pieces and verbalizations indicated how impassioned they had become about the topics they studied, how much they had changed as a result of studying them and how frequently they were imparting what they had learned to others. One, for instance, wrote that she would no longer allow her three year old to eat junk food. Another said she now can taste "chemicals" in McDonald's dishes and a third wrote that she decided to become a vegetarian (something I never promoted). Many students mentioned how good they felt about themselves by educating others and gaining awareness of how alienated from themselves food culture has made them, and some expressed surprise by how much compassion they had for food desert inhabitants. Several students had written that they felt they learned best by reading texts in combination with experiencing first-hand what they were reading about. Others had indicated that they learned a lot by working in a group with their peers. All of the students indicated that they either "liked" or "loved" doing Service Learning and, clearly, all the students learned something new about themselves.

I cannot say that the student writing in this class improved more dramatically than in other English 110 classes I've taught. Furthermore, to expect my Service Learning course to be a magic bullet would mean that I've been seduced by the very conventions promoting and promising, at the cost of wholeness and integration,

expedited results: aspirations I structured this course to question. However, I believe that the engagement students experienced with the course positively impacted their desire to express themselves in writing, since they discovered they have many thoughts and feelings about the topics so relevant to their lives. Improving one's writing is an ongoing process and, as made clear by many of the selections we read throughout the semester, our culture, impatient, is product rather than processoriented. The gains my students garnered included a comforting awareness of the stages inherent to the writing process and the importance of embracing processes rather than eschewing them –something advocated, they learned, by such people as Wendell Berry and Karl Marx. Students' incipient cognizance of these notions may prove to be a tool to help their writing continue to improve.



### BIRDS, BEES, FROGS AND A GRASS CARPET: SEMI-RANDOM THOUGHTS ABOUT THE STATE OF OUR "HOUSE"

#### Julie Trachman

Dedication:

This article is dedicated to our recently departed colleague, Prof. Mike Vozick. He was an educator, an environmentally concerned citizen, a life-long activist and as one colleague put it, a "gadfly," in the best sense of the word.

One of the scenes that has remained most vivid in my mind since I read Stranger in a Strange Land in high school was the depiction of a living grass carpet in the living room of one of the characters (Heinlein 63-65). This was characterized as a luxury item in the book. I am starting to think that Heinlein was quite prescient. At least for those of us living in urban settings (and year by year, more of us human beings are proportionally dwelling in city landscapes), we are surrounded increasingly by concrete and other man-made materials and less by the trappings of nature. I am not sure if you have considered the extent to which this transformation has an impact on our well-being. There are studies such as the one recently published by Alcock and colleagues (1253 - 1254), which indicate that moving to a green space improves one's mental health and these effects are not short lived. Books have been written regarding how children growing up today in the technology era receive less exposure to nature and how this perceived lack of exposure has led to problems in their physical and emotional development (Louv).

We don't usually think about this but we are all interconnected. No, I am not just talking about the Six Degrees of Separation (Guare) interconnectedness but rather that all living things, human beings, plants, bacteria et al., share a relationship with one another, evolutionarily and in other ways (Bhattacharjee 153). To a good extent, I believe, many of us reared with Western thinking forget this and think that human beings are at the top of the "totem pole" with perhaps the exception of the gods as evidenced by the notion of the Great Chain of Being. However, at an instinctive level, I think many of us recognize this. The evolutionary biologist, E.O. Wilson, called this genetically based "hard-wiring" where we are fascinated by natural stimuli and affiliate emotionally with living organisms in our environment,

biophilia (Barbiero 11). Think about how many instances when you have time off, you escape to a natural setting like a park, a beach or even your backyard or garden. Even growing plants in one's home or having a pet are manifestations of this.

Rachel Carson captured the poignancy of this phenomenon in her book Silent Spring, which made our society rethink its excessive use of the long-lived DDT and

other insecticides.

DDT use on a large scale helped to control malaria-carrying mosquitoes in the U.S. and throughout the world (Carson 266; Wargo 175). Other practices also contributed to increased pesticide use by the mid-1900s. In many U.S. towns and cities, the stately Dutch elm trees lined street after street instead of having more mixed tree populations. Use of pesticides on a large scale was also prompted by increased occurrence of single-crop cultures (monoculture) to produce our food crops. With this decreased biodiversity in tree populations and food crops, the natural checks and balances are diminished thereby increasing the ability of their insect pests to flourish (Carson 10). However, rampant use of chemicals such as DDT, besides targeting insects relatively non-discriminatorily, "have the power ... to still the song of birds and the leaping of fish in the streams, to coat the leaves with a deadly film, and to linger on in soil ... " (Carson 7).

The effects of insecticides such as DDT (or as Rachel Carson's called these insecticides, biocides) on our environment demonstrate our interconnectedness via the food web (food chain) if by no other means. DDT was used to curb Dutch elm disease. Taken up by organisms relatively low in the food web, higher organisms feed on those organisms. In a process called biomagnification or bioaccumulation, DDT accumulates in fats and is passed along in the food chain because in each successive organism, the DDT becomes more concentrated leading to more deleterious effects in the animals higher in the food web (chain) (Carson 22; Wargo 177). With birds, perhaps the most notorious example, the shells became too thin and this caused problems with hatching. This almost drove the bald eagle to extinction. People also took notice when in spring, its harbinger, the songbirds, were not chirping as usual (Carson 103).

Human activity is changing the planet, not always for the good. Fortunately, individuals including Rachel Carson noticed the silencing of the birds and other detrimental environmental changes brought about by the wide-scale use of DDT. This was not easily accomplished but the work of Carson and others were instrumental in forcing our government to ban DDT. Likely, their efforts were helped by the fact that it was our national bird going extinct or the harbingers of spring disappearing. Or maybe, the scientific evidence that DDT was being found not just in cow's milk (Carson 22; Wargo 183 -184) but even in human breast milk was the

reason (Carson 23; Wargo 185).

And how about what might be going on more insidiously or perhaps occurring at even more widespread levels? Or how about what might be occurring in the here and now? Many of you have seen headlines regarding colony collapse disorder affecting bee hives. During summer months, we see honey bees flitting from flower to flower collecting nectar to bring back to their hives to convert into honey and collecting pollen for its protein content. We do not fully understand what is causing the bees to die off in massive numbers. Mites and other bee pathogens have been implicated but so has the use of neonicotinoid insecticides to coat plant seeds, a

practice done to minimize susceptible plants from being damaged by insect parasites (Tapparo 2592). The bees may be collateral damage in this case. We do not necessarily think of this outcome, but bees, which help in the cross-pollination of plants, many of which are vital to our food supply, are a mainstay of our ecosystem.

And then there are the frogs – potentially one of the canaries in the coal mine when it comes to global climate change. Although we in the tri-state area recently recognized a hitherto unknown species of frog living in our backyard (Foderaro A22), in many other parts of the world numerous species are dying off. They seem to be inflicted with a fungal disease, the spread of which is related to the changing climate in these locales (Rohr 1; Chachere). Because frogs are an integral part of the food chain (food web), I will hazard to say that their dying off will have numerous effects in the food web and will lead to an explosion in the population of certain insects (at least the ones these frogs dine on), which may very well be insect vectors of human disease.

So why should we care about the birds, the bees, and the frogs? Or about the polar bears losing their frozen habitats in the Arctic Circle or the coral reefs disappearing due to the acidification of ocean water by absorbed carbon dioxide gas? These examples serve as "tips" of proverbial icebergs (which, by the way, along with many other ice masses on this planet are melting at increasingly rapid rates threatening to alter our coastal and other landscapes). Much has been written about the importance of biodiversity on this planet in regard to disappearing coral reefs (marine biodiversity hotspots) and disappearing tropical rainforests (land-based biodiversity hotspots) which are being cut down so land can be used to harvest crops desired by human beings (Wilson 20). Besides the loss of biodiversity with respect to tropical rainforests, this practice has contributed to global climate change since this lush vegetation serves as a carbon dioxide sink (plants carrying out photosynthesis which needs carbon dioxide) which, with the wood being burned in the disposal process, contributes to air-borne carbon dioxide.

Because of human activities such as the destruction of tropical rainforests, there are many who believe this planet is in the midst of the sixth mass extinction (Quammen; Wilson 13). The food web will unravel undoubtedly. Ecologists recognize that biodiversity, with its manifold interconnections between the various living organisms make the ecosystem more resilient, especially when placed under extreme stress. Without this biodiversity that we have been privileged to have on this planet up until now, even small stresses might lead to catastrophic immediate or even delayed consequences (Foster). At the anthropocentric level, human beings will lose access to untold possible medicines that might serve as chemotherapeutic cures for various cancers, infectious diseases, etc. (Wilson 3).

Imbalances among flora and fauna will be created and other unforeseen consequences will likely arise including the increased appearance of emerging infectious diseases (a bad outcome at least from the human perspective). And yes, I have to confess to the fact that I, like you, am to some extent anthropocentric and it is to be expected (Bourdeau). However, I have become less so over time, as I have gained knowledge and become more appreciative of our ties to other living organisms on this planet and their inherent value (not just from the human perspective). Many other cultures including quite a few Eastern religions (Bourdeau) as well a number of the Native Indian tribal cultures (Momaday) have espoused the view that

all living organisms are all interconnected. They have also recognized the inherent value of land, water, air, their being non-living components of our ecosystem. Aldo Leopold in his seminal piece "The Land Ethic" reminds us that our well-being is directly linked to that of the physical environment around us and that these components all have an inherent value, which needs to be protected. Recognition of some of the damage we have done to our environment such as the Cuyahoga River set on fire in June 1969 was reflected in Congress's enactment of the Clean Water Act in 1972 and the establishment of the Environmental Protection Agency (EPA) in 1970 (Scott). These "agents" of the people and others like them help to safeguard our common environmental areas from the negligence of many industrial enterprises, which, if left to their own devices, think very narrowly of their own immediate needs. Such narrow thinking leads to issues discussed in Garrett Hardin's Tragedy of the Commons. In reading John Bellamy Foster's excerpt where he contextualizes the four ecology laws of Barry Commoner's with respect to capitalism, one gets a better understanding as to why capitalistic societies are increasingly at odds with nature (Foster).

Accidents such as the British Petroleum (BP) oil spill and natural disasters such as the 2011 tsunami that debilitated the Fukushima Nuclear Reactor in Japan do happen, and they severely damage the environment on a large scale. But one also hears of companies illegally (or even amazing, legally) dumping toxic wastes into streams and committing other similar indiscretions. Some of the damage due to such situations will have implications for many generations to come. This brings us to the wisdom of the Iroquois Indians sometimes referred to as the Seven Generation Sustainability (although some would quibble that the original text does not explicitly say seven generations). The point though is a good one. We should not just be thinking of today but also of the long-lived consequences of what we do to our environment. Because of their wide scope, the BP oil spill and Fukushima disaster are difficult enough to deal with in respect their aftermath. However, there may be even more serious challenges than these and other insults to the environment that will still require our attention.

We need to become less myopic and start thinking along the lines of the seven generation sustainability concept of the Iroquois. In some cases, we need to proceed in a downright more cautious fashion. The Precautionary Principle, which recommends that an action should not be taken if there is significant potential for deleterious consequences, is to some extent practiced by many of our government agencies such as the Food and Drug Administration (Lougheed). After testing, some drugs and food additives do not ever make it to the market. Others, with additional evaluation, get pulled if there are indications that there are problems when the drug or food additive are used on a larger scale. But in some cases it seems like all caution is being thrown to the wind, especially when there are strong lobbies pushing for their product or promoting their industry. For example, the majority of scientists today believe global climate change is occurring due to anthropogenic carbon dioxide release from the burning of fossil fuels, among other reasons; however, the coal, oil and gas industries in conjunction with certain legislators who do not want to seriously consider the evidence and instead want to promote economic interests, no matter what might happen to the environment, hold sway (Chameides 5766; Carpenter).

There are limits to how much "insult" this planet can take. Some of the previous mass extinctions appear to be due to natural disasters such as meteor strikes or large-scale volcanic eruptions. The type of life on this planet has dramatically changed as a result of these non-living (abiotic) interactions with the living (biotic). The type of life on this planet has also changed dramatically because of living forces (biotic influences). For example, production of oxygen by blue-green bacteria billions of years ago drastically decreased the presence of anaerobes at least on the planet's surface and these changes have been implicated in changing the non-living landscape as well (oxygen is very reactive chemically).

The interconnectedness of the living with the non-living environment forms the basis of the controversial Gaia Hypothesis (Moody) promoted by chemist James Lovelock. Lovelock and his proponents, one of whom is the eminent biologist Lynn Margulis, think of the Earth as one living organism. They believe that the long-term stability of the ocean's salinity, atmospheric composition, temperature regulation, etc. have been maintained by homeostatic mechanisms at the planetary level (Lovelock Gaia; Lovelock "Living Earth"). But even if he has tempered his statements somewhat in recent past (Moody; Johnston), Lovelock himself recognizes that due to man's actions such as the anthropogenic release of carbon dioxide into the atmosphere, we will be pushing the planet beyond the capacity of these homeostatic mechanisms.

Regardless of whether or not one is a proponent of Lovelock, the state of our "house" has undergone considerable "insult." We, human beings, need to look at the environment in a different light – not just to be plundered for our economic benefit. Some of these ways of viewing the environment have been explored metaphorically by environmental economists (Raymond). The five metaphors described provide a "continuum of perspectives on human – environment relationships." They range from a closed loop metaphor, which implies that humans have a right to use ecosystem services, as long as they are being used "sustainably or can be properly substituted with equivalent natural or human-made services" to an eco-cultural community metaphor where the "humans have a responsibility to manage ecosystems on the basis of the connections among the spiritual, physical, and social worlds." This last metaphor is reminiscent of how many Native Indian cultures and Eastern religions view their environment (Bourdeau). The humans living in these societies are often described as living in harmony with nature, an ideal that I feel we need to strive for if we do not want to destroy our planet, the only "house" we know.

#### TO THE READER:

As educators, we strive to provide our students with knowledge so that they will understand the world around them better and they will be able to develop their critical thinking skills. Introducing students to science achieves both. We also want to instill in our students an interest in life-long learning as well as the notion that when they graduate, they should become civically engaged citizens. Among the ways to do so is by introducing students to important real-life environmental issues that I have described in this essay. I hope I have provided you with some ideas to take into your classrooms.

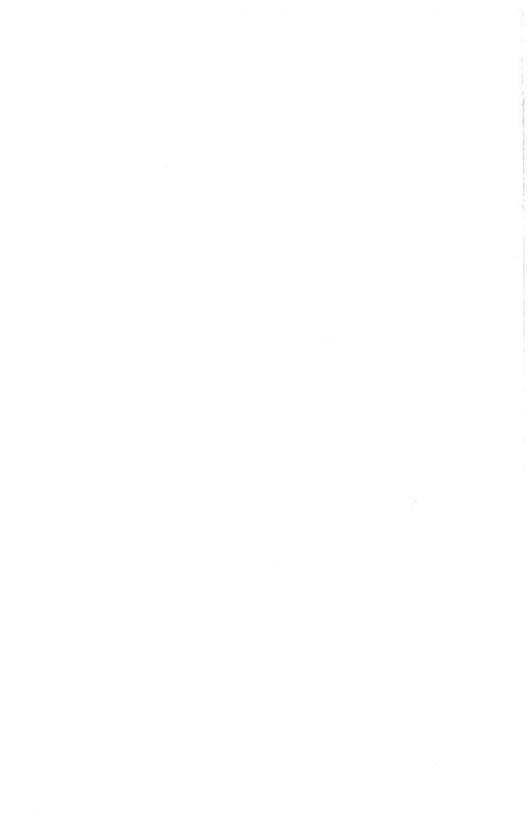
#### ACKNOWLEDGEMENT

I would like to thank Prof. Chris Paskoff for reading the manuscript and providing useful suggestions and insights on environmental philosophy issues.

#### REFERENCES

- Alcock, I., White, M. P., Wheeler, B. W., Fleming, L. E., & Depledge, M. H. (2014). Longitudinal effects on mental health of moving to greener and less green urban areas. *Environmental Science and Technology*, 48(2), 1247–1255.
- Barbiero, G. (2011). Biophilia and gaia: two hypotheses for an affective ecology. Journal of Biourbanism 1, 11-27.
- Bhattacharjee, J. K., Janssen, G. R. & Gregg, T. G. (2009). Darwin's theory of evolution and legacy [letter to the editor]. *Microbe*, 4(4), 153.
- Bourdeau, P. (2004). The man-nature relationship and environmental ethics. Journal of Environmental Radioactivity, 72, 9-15.
- Carson, R. (1962). Silent spring. Boston, MA.: Houghton Mifflin Company.
- Carpenter, Z. (2013). Scientific consensus won't change the politics of climate change. *The Nation*.
- Chachere, V. (Aug. 2012). USF Study: Frogs Getting Sick from Climate Change.
- Chameides, B. (2006). Humanity usurps nature. Science, 311 (5766): 1379.
- Foderaro, L. W. (Mar. 2012). A New Species in New York Was Croaking in Plain Sight. NY Times, A22.
- Foster, J. B. (1999). The Four Laws of Ecology and the Four Anti-Ecological Laws of Capitalism. Excerpt from The Vulnerable Planet, Chapter 6.
- Guare, John. (1992). Six degrees of separation. New York, N.Y.: Dramatists Play Services, Inc.
- Hardin, Garrett. (1968). The tragedy of the commons. *Science*, 162 (3859): 1243-1248.
- Heinlein, R. (1961). Stranger in a Strange Land. New York, N.Y.: Avon Book Division, Hearst Corporation.
- Johnston, I. (2012). 'Gaia' scientist James Lovelock: I was 'alarmist' about climate change. NBCNews World News.
- Leopold, A. (1949). A Sand County almanac. Oxford, U.K., Oxford University Press.
- Lougheed, T. (2009). Understanding the role of science in regulation. Environmental Health Perspectives, 117(3), A104-A110.

- Louv, R. (2008). Last child in the woods: saving our children from nature-deficit disorder. Chapel Hill, N.C.: Algonquin Paperbacks.
- Lovelock, J. (1979). Gaia: a new look at life on earth. Oxford, U.K.: Oxford University Press.
- Lovelock, J. (2003). The living earth. Nature 426, 769-770.
- Momaday, N. S. 1976. A first American views his land. In *American earth:* environmental writing since *Thoreau*, ed. Bill McKibben. New York, N.Y.: Penguin Group, Inc.
- Moody, D. E. (Dec.-Jan. 2011). Gaia comes of age. Natural History, 40-41.
- Quammen, D. (Oct. 1998). Planet of weeds: Tallying the losses of earth's animals and plants. *Harper's Magazine*, 57 -69.
- Raymond, C. M., Singh, G. G., Benessaiah, K., Bernhardt, J. R., Levine, J., Nelson, H., Turner, N. J., Norton, B., Tam, J., & Chan, K. M.A. (2013). Ecosystem services and beyond: using multiple metaphors to understand human-environment relationships. *Bioscience*, 63, 536–546.
- Rohr, J. R., Raffel, T. R., Blaustein, A. R., Johnson, P. T. J., Paull, S. H., & Young, S. (Aug. 2013). Using physiology to understand climate-driven changes in disease and their implications for conservation. *Conservation Physiology*, 1(1), 1-15.
- Scott, Michael. (2009). Cuyahoga River fire 40 years ago ignited an ongoing cleanup campaign. *The Plain Dealer*.
- Tapparo, A., Marton D., Giorio, C., Zanella, A., Soldà, L., Marzaro, M., Vivan, L., & Girolami, V. (2012). Assessment of the environmental exposure of honeybees to particulate matter containing neonicotinoid insecticides coming from corn coated seeds. *Environmental Science & Technology*, 46(5), 2592-2599.
- Wargo, J. 2009. Green Intelligence: Creating Environments that Protect Human Health. Ann Arbor, MI: Sheridan Books.
- Wilson, E. O. (1999). Biological diversity: the oldest human heritage. Albany, N.Y.: The New York State Biodiversity Research Institute of the N.Y. State Museum, Cultural Education Center.





## TOUCHSTONE

#### 2014 CALL FOR PAPERS

La piedra de toque de la enseñanza es el interés que produce...

In linking the power of teaching to a broadening of our vision, Eugenio María de Hostos affirmed the power of education. In honor of our namesake's belief, we have created Touchstone, a journal devoted to the scholarship of teaching and learning and published yearly by the Magda Vasillov Center for Teaching and Learning. We are now looking for contributions for our second edition.

### Call for Papers in English or Spanish:

- Original scholarship on teaching and learning (5-7 pages).
- Short articles (2-5 pages) on:
  - Best practices
  - Technology in the classroom
  - Assessment and evaluation
  - Classroom-based research
  - WAC and beyond

- Service Learning
- General Education
- Conference reports
- Teaching challenges
- Personal Reflections · Reviews of textbooks and scholarly works; and
- Creative works on teaching and learning.

Send your articles in APA style (endnotes only) to Touchstone's editors by December 31, 2014. For more information, contact: Carl James Grindley (cgrindley@hostos.cuny.edu) or Kim Sanabria (ksanabria@hostos.cuny.edu).

Visit us online at: http://www.hostos.cuny.edu/oaa/ctl touchstone.htm



The Professor Magda Vasillov Center for Teaching and Learning Eugenio María de Hostos Community College 500 Grand Concourse, The Bronx, 10451