

TOUCHSTONE



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PREFACE

Carmen I. Coballes-Vega

This is the fourth edition of *Touchstone*, the scholarly journal of the college. Its publication continues the vibrant and forward-looking aspirations of its founders and editors to provide a public medium of communication for all facets of faculty scholarship at Eugenio Maria de Hostos Community College. Ten years into the 21st Century the challenges for community colleges is clearly evident. More and more of this nation's first-year college-age students are enrolling at public two-year institutions. Hostos Community College, along with many other urban-based colleges throughout the country, has demonstrated the critical and strategic role it plays in preparing a highly motivated, articulate, and competent workforce. Hostos faculty, staff, and administrators have shown what they can do in preparing the future workforce. The scholarly writings in this journal are but a small indication of the commitment and the capability of Hostos as an institution to contribute to the nation's future prosperity.

The Division of Academic Affairs in collaboration with the Magda Vasillov Center for Teaching and Learning (CTL) has provided a number of opportunities for faculty engagement in scholarship and the improvement of teaching through workshops, conferences, Professional Development Institutes (PDIs), guest speaker series, and focused colloquia. The E-Portfolio Implementation Committee (EPIC) offered a number of sessions concentrated on mentoring orientation opportunities. The Committee on Beautiful Ideas (COBI) has continued and faculty projects were reviewed and will continue to be funded. The On-Line Facilitators' Investigation Group hosted a series of faculty and staff conversations regarding online teaching, assessment of online learning, promotion of advisement for students, and the development of student focus groups. The richness of these conversations is evident through faculty presentations both on and off-campus. The Office of Academic Affairs, the Office of Educational Technology (formerly the Office of Instructional Technology) and the CTL hosted the Technology Day with Dr. Helen Barrett as keynote speaker. Dr. Barrett is a well known expert on E-portfolios and former

faculty member of the College of Education at the University of Alaska Anchorage. She delivered an informative and engaging presentation on the development of E-portfolios. The sessions included presentations by Hostos faculty and the audience included faculty and administrators from public and private colleges in the metropolitan area. Hostos faculty remain dynamically and professionally engaged. They continue to prepare, deliver, and disseminate knowledge about their research and teaching practice at local, state and national levels.

In addition to the activities listed above, this year Hostos administrators, faculty, staff and students have been involved in a number of institutional review processes including national accreditation through the Middle States Association, strategic planning, and the Foundations of Excellence® in the First College Year Self Study. A major strength of these processes has been the involvement of a wide cross-section of individuals from various departments, units, and divisions. The level of engagement has re-energized the college and will, no doubt, bring the college closer to achieving new goals and outcomes as we move into the next phase of our history. Consistent with our mission, the college offers “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.” There is no greater time for our college to embrace the educational needs and aspirations of Bronx residents, particularly as we strive to reduce the achievement gap for Latino and other minorities who continue to lag behind other groups in the United States. The reaffirmation of the campus commitment to the mission will propel us forward and ensure a more hopeful and prosperous future for our diverse communities.

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

INTRODUCTION

Carl James Grindley
Kim Sanabria

It has been very exciting to shepherd this year's edition of *Touchstone* through publication, especially since the process has been more inclusive than ever, with new people joining the editorial team, and existing colleagues taking on additional duties. On the behalf of everyone involved, we would like to thank the authors--who represented nearly every department on campus: Business, Education, the Library, Humanities, Mathematics, Language and Cognition, the Natural Sciences, and the Leadership Academy. With such a wide range of contributors, it is not surprising that this issue of *Touchstone* features more cross-collaboration between departments than any of our previous issues.

We would like to recognize the support of the following individuals: Dr. Carmen Coballes-Vega, Provost and Vice President of Academic Affairs; Dr. Christine Mangino, Acting Associate Dean of Faculty and Curriculum Development; Professor América Trinidad, Chair of the Professor Magda Vasillov Center for Teaching and Learning; department chairs, who have always been so wonderful in encouraging their faculty to offer not only their research but their support; and our reviewers, Dr. Richard Gampert, Director of Institutional Research, and Professors Robert F. Cohen, Ruslan Flek, and Kate Lyons. Finally, we would like to offer a special thanks to Professor Jennifer Tang who coordinated the review process, and Professor Catherine Lewis, who has taken on the special role of *Touchstone's* new designer, typesetter and production coordinator. Her efforts are greatly appreciated.

Our opening article is by the Professor Magda Vasillov Center for Teaching and Learning's Assistant Director, Ms. Sarah Brennan and the Library's Professor Jennifer Tang. In their work, they consider the use of social media as a tool for student retention through e-mentoring.

Continuing with technology, Ms. Brennan teams up with Professor Sandy Figueroa from the Business Department and Professor Sherese Mitchell from the Education Department to examine the expansion of instructional and online

classroom technologies. Reporting on the good work of the Online Facilitator Investigation Group, the authors suggest some new strategies for ensuring student success in online courses.

Next, Natural Science Professors Julie Trachman, Nelson Nuñez-Rodríguez, Flor Henderson and Yoel Rodríguez team up with the Library's Professor William Casari and Mr. Jason Libfeld of The Leadership Academy to discuss service learning as it relates to helping to keep The Bronx green.

Mathematics Department Faculty are well-known for their proactive stance towards not only serving the needs of remedial students, but also bringing their students the latest in technological advances. In a collaborative effort, Professors Alice Welt Cunningham and Olen Dias work with Professor Nieves Angulo to examine the impact of small-group homework-completion tutoring on students in Math 10 and Math 20.

The Humanities Department's Professor Ian Charles Scott then gives us an examination of how he began to draw and paint the renowned Scottish poet George Mackay Brown. Professor Scott urges us not only to deliberately seek out our inspirations and influences, but to immerse ourselves in the study of our disciplines, working on the technical aspects of our craft.

In the first of two review articles, the Library's Professor William Casari, our College's archivist, examines one of the South Bronx's most troubling memories, the fires of the late 1970s. Professor Casari does a wonderful job condensing a very complex and controversial part of our city's history, and showing us how the events of our neighborhood shaped the city's overall political fabric.

Although all of our contributors are cherished, special recognition this year has to go to our colleague Hector Lopéz who has published in all four editions of *Touchstone*. Professor Lopéz has used *Touchstone* as a way to develop his ideas, and prepare them for publication in refereed academic journals. Indeed, his article in the first edition of *Touchstone* was later published in the *Texas Business & Technology Education Association Journal*--a refereed publication. This year, Professor Lopéz has contributed an insightful review article on occupational stress and burnout in academia, and would like to urge all faculty members to consider submission to *Touchstone* as an ideal way to gain valuable feedback from colleagues.

Next, the Natural Sciences Department's Flor Henderson discusses how small groups of students can work together in the Biology Lab to complete much larger projects cooperatively. Professor Henderson is able to offer her readers some great ideas on improving student learning and retention with a special focus on addressing some general education core competencies.

Finally, the Language and Cognition Department's Chair, Professor Robert F. Cohen, offers us a reflection on his years of teaching English as a second language. Professor Cohen helps to close out this edition of *Touchstone* by teaching his readers how language learning is experienced by our students.

Carl James Grindley
The Department of English

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FACEBOOK AVATARS, OR DOPPELGANGERS, FOR THE ACADEMICIAN: EMENTORING TURNED EDUCATIONAL CAMPAIGN

Jennifer Tang and Sarah Brennan

Facebook, an innovative digital communication tool, boasts more than 500 million active users worldwide. Faculty nationwide can testify to the popularity of this social networking site. Ask a group of students in any classroom if they have used Facebook the night before, and teachers observe that most, if not all, hands would go up (Bugeja). Contrast this with the response of students if a professor inquired, “Who completed the reading or assignment I gave last night?” The results would most likely be different, regardless of the level of excellence the faculty member brings to the classroom.

Facebook, social networking, and blogs, among other Internet technologies, now occupy a dominant role in students’ activities outside of the classroom. Interestingly, the use of Facebook, blogs and other networking sites require that students exercise the same critical skills that educators often demand of students in terms of classroom assignments: reading, writing, and critical thinking. Further, students are engaging in self-propelled research using the Internet—in essence designing their own educational plans, whether they know it or not. They are actively searching, referencing, cross-referencing, and fact checking; they are drafting, editing, re-reading, and re-writing. Whether social or academic, students are sharing perspectives, thoughts, and preferences with their peers and Internet-users worldwide without understanding the ramifications of their actions. Never before have individuals been able to share information instantaneously with such a wide audience. It is clear that social networking sites are defining a generation of learners in new and innovative ways. These changes suggest a need for faculty to re-evaluate classroom pedagogies.

“Facebook Mentoring: The Potential of Using Facebook to Increase Academic Learning and Retention Rates Among Hostos Students” is a COBI project that explores the possibility of using Facebook as an online mentoring tool. Our project was inspired by an article that recounted the experience of two nursing faculty at Mesa Community College who successfully used an avatar to mentor their students

on Facebook. They posted encouraging notes, informed them of upcoming exams, and congratulated them when they graduated.

Based on this encouraging experiment, we began thinking about the best ways to incorporate Facebook into the mentoring process. However, the overwhelming options and problems that make up the Facebook experience soon became apparent.

As we continued our research, we grappled with issues of privacy, boundaries and controlling access to information. Realizing the enormity of the online environment, we discussed the possibility of abandoning the idea completely. We read multitudes of cautionary tales that had Facebook at the heart of trouble for individuals who had lost their jobs (Hoffman), were expelled from academic institutions (Dorell), or had attempted or committed suicide as a result of information released on the web (Clementi).

As we scrutinized television ads, listened to random student conversations in the hallways and other public areas where students congregated, we began to re-think our project. We realized that the issues encompassed by this project had validity and could not be dispensed with lightly. While the literature showed that Facebook mentoring was possible, we realized that it was first necessary to address the concerns of faculty and student communities about Facebook.

SURVEYS

To do that effectively, we collected data about how Facebook is currently being used by faculty and students. We designed two 10-question surveys—one for faculty and one for students—to report frequency of use, concerns, and openness to using Facebook for educational purposes. We released the student survey on SurveyMonkey and collected responses during the Spring 2011 semester. Of the respondents, 78% were current Hostos students and 7% were Alumni.

The results were as follows:

- 100% indicated they used Facebook; 57% said they used it daily, 28% said “often” (once or twice a week) and 14% said either “sometimes” or “rarely”
- 100% said they used Facebook for keeping in touch with friends and family; 36% said they used it for professional networking and to participate in group discussions; 14% used it to join groups and get freebies, coupons and offers. Among its features, users praised Facebook’s ability to post photos and links and to send messages instantaneously.
- Over half of the respondents said they were linked to blogs.
- 57% currently use Facebook to keep in contact with their professors. Of these respondents, 21% said they discussed academics; 14% said they talked about career options; and 7% shared personal issues or concerns.
- 43% said they would consider using Facebook to communicate with their professors, while 21% said they would not use it to contact faculty.
- 7% admitted they looked up faculty profiles on Facebook
- 93% had concerns about privacy: “I don’t like that I can’t see who watches my Facebook page,” said one user. Another student complained about “the lack of privacy” and “gossip.” 57% worried about identity theft; 50% said they feared losing control over posted information.

- When asked, “What would you like to learn about Facebook?” students wrote: “how to do the privacy settings” and “how to prevent others from possibly stealing my information.”

These results confirmed our belief that Hostos students are actively engaged with Facebook even though they are concerned about privacy issues, identity theft, and the misuse of posted information.

E MENTORING PROJECT

We adopted the idea of using doppelgangers (Skiba), or avatars to represent the mentoring profile of faculty and students who want to use the newly-created eMentoring Facebook account for Hostos. To protect the anonymity and privacy of our students and faculty, we decided that mentors and mentees who joined this online mentoring community on Facebook would each be assigned a special user ID. Through this persona, one mentor and one mentee could theoretically share questions, stories, and comments candidly with each other. Faculty would dispense advice under the name of “Julián Sanz del Río,” a Spanish philosopher who mentored Eugenio Maria de Hostos, and the students would be assigned to be “Eugenio/a Maria de Hostos.”

Using an anonymous user ID to represent faculty would protect their privacy as well as that of others involved and could prove to be important to the project for many reasons: (1) student bias towards a particular faculty member could be avoided; (2) the ID could show a collective effort on behalf of faculty toward the development of all students; and (3) the ID could provide consistency for all faculty users. For the students, this anonymity could provide opportunities to: (1) share honest questions; (2) post candid feedback; (3) pose complex discussions; (4) maintain personal privacy, and (5) avoid public ridicule.

We shared our solution with colleagues, who, surprisingly, challenged us on the matter of these safeguards. They suggested reasons why students preferred to interact using their true identities on blogs and social networking sites. In particular, they expressed the view that online communities grow precisely because the players know who they are talking to and what they are talking about. They pointed out that there is incredible opportunity to support others by being open and revealing their true identities.

The first reaction was to defend our reasons for anonymity and point out the dangers and naivete of those statements. However, we soon realized that students and faculty do have varying comfort levels when it comes to online communication, and we acknowledged that our project needed to reflect these variables. We decided to implement a compromise: Faculty would always be anonymous, and students could choose whether or not to be anonymous. Moreover, faculty would be assigned to a rotating schedule to advise and answer the needs of mentees as they are posted in the online eMentoring community. At various times, then, students would be able to converse with “Julian Sanz del Rio,” the moniker under which all faculty mentors would work.

EDUCATIONAL CAMPAIGN

The final component of the project is the educational campaign designed to help Hostos Facebook users construct a safe and positive online presence. We learned that Hostos Career Services offered students a Facebook workshop entitled, “Beyond Facebook: Secrets You Must Know (Social Networks... the New Background Check Tool).” To prepare students for mentoring, we decided to create a hybrid workshop that would expand upon this seminar and focus on educating students on the uses and dangers of Facebook.

The face-to-face portion of the workshop, entitled “The Professional You: Using Facebook and Online Technologies to Build a Positive Online Reputation,” will include an online tour of Facebook functions; how to open a professional Facebook account; discussions about the use of appropriate language and etiquette in posting information; the shelf-life of posted information; social and academic boundary building; and an examination of the myriad consequences to one’s personal and private life when using a site like Facebook. The online tutorials offer detailed descriptions of Facebook functions and privacy policies. In addition, an online rubric designed to judge the strength of one’s online reputation will be included in both portions of the hybrid workshop.

By exploring the positive and negative uses of Facebook, we would give Internet users a needed sense of control in an uncontrolled environment where information is being shared with a world-wide audience. As a further incentive to participate in the hybrid workshops, students will earn Hostos Rewards Points (see college web site).

FACEBOOK AND PRIVACY

To understand what Facebook is, we realized that we had to step back and take a broader view of how Facebook’s popularity is related to the way people in the 21st century have learned to communicate. While viewers of the recent film *The Social Network* might assume Facebook is an innovative addition to everyday life, this view does not explain why the site is so popular and why so many users voluntarily sign up for it.

Facebook can be seen as symptomatic of our “confessional” culture (Hofmann “Confessional”). Inasmuch as candid memoirs, talk and reality shows, blogging and Twitter accounts have made private mutterings acceptable as public knowledge, Facebook could be seen as part of the *zeitgeist*. For the purposes of mentoring, however, its greatest danger lies in its decimation of relationship boundaries. Notably, Facebook has an absence of guidelines on how to separate a person’s personal and professional lives and encourages the merging of the two. For example, friends, intimates, co-workers and supervisors alike share the same “Friend” list on a Facebook account, and anyone’s postings can be viewed simultaneously regardless of the private or professional nature of the communication. While levels of intimacy continue to exist in real life (for example, what one shares with one’s spouse or significant other will always be of a deeper and more personal nature than that offered to an acquaintance), Facebook users are often tempted to forget that these social boundaries still exist (Helft).

Why does this happen? Though Facebook does have privacy settings, the smallest and most intimate group that can be defined on the site is that of “Friends.”

“Friends of Friends” and “Friends and Networks” represent ever expanding groups while the most public setting is that of “Everyone.” If “Friends” is the smallest group available, that means any posting still has the potential to reach thousands of people who are labeled simply as “Friend.” No further delineation can be made—a user cannot categorize a “friend” as being an (a) acquaintance (b) best friend or (c) significant other or (d) boss or co-worker. More disturbingly, a user’s Facebook privacy settings can be circumvented if one of your “Friends” allows “Everyone” to see their profile—like someone tunneling into your house through your friend’s open back door, a total stranger can end up viewing a piece of your Facebook profile without your knowledge. Though all “Friend” requests must first be approved by the user before more information can be shared, a potential stranger can still come up to your doorstep, so to speak.

The purpose of our project, in particular our educational campaigns, is to protect Hostos faculty and students from the use and misuse of their information by raising their awareness of the quality, content and reach of online communication. If Facebook doesn’t allow a user to refine access to private and personal utterances, the responsibility of posting comments and information falls squarely on the user. Though this field of instructional technology is not new and a great body of literature exists on the topic, recently developed Internet technologies are radically re-defining what it means for students to learn, study, and engage in learning inside and outside of the classroom.

CONCLUSION

The 21st Century world of education is radically changing and faculty must step forward to help define and give a structure to the online environment that is more chaos than structure. Because the consequences of these new technologies are yet to be fully understood, it is no accident that faculty and students alike feel trepidation at these new modes of communication. The anxiety that new technology tends to provoke may account for the major feelings of resistance that we have encountered from faculty in discussing Facebook or other Internet technologies as academic tools for learning. While students are well aware of the importance of fashioning effective resumes, CVs, and portfolios, we note there is a lack of education and awareness to protecting one’s online reputation, even as more and more employers use the Internet to make their hiring decisions. If our position as Hostos educators is to help students maximize their chances to succeed in the marketplace or to further their education in a world dominated by networking sites such as Facebook and other novel modes of communication, then it is upon us to train and guide students on the importance of seeing how to navigate what could be an online minefield. Refusing to address this reality may very well jeopardize student marketability as job seekers or future baccalaureate candidates.

The Facebook eMentoring site was announced publicly on February 14, 2011 during the Valentine’s Day Mentoring Match.com program and will debut at Hostos in Fall 2011.

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EVERYTHING YOU WANTED TO KNOW ABOUT TEACHING AND LEARNING WITH TECHNOLOGY BUT WERE AFRAID TO ASK: AN ONLINE FACILITATORS' INQUIRY-BASED INVESTIGATION GROUP

Sarah Brennan, Sandy Figueroa, Sherese Mitchell

BACKGROUND

Web-enhanced courses, or courses that include a web component in addition to traditional classroom requirements, debuted at Hostos in the early 1990s. Fully online (asynchronous) and hybrid courses were listed in the Hostos *Schedule of Classes* in 2002 (Schedule). The development and implementation of technologically enhanced courses was not an original Hostos idea. The Central Office of The City University of New York (CUNY) has been communicating University-wide goals for more than a decade using a document called the Performance Management Plan (PMP). Among the many goals identified by CUNY Central was the expansion of instructional and online technologies used in classrooms.

Each CUNY campus uses the University PMP goals to develop specific campus goals. At Hostos the process is for the college President to share the new CUNY Central PMP with the division vice presidents. In the division of academic affairs, the Provost and Vice President sets division targets and faculty and staff within the division are identified to report on the progress made toward accomplishing those targets. The Office of Instructional Technology (OIT) and the Committee on Academic Computing (CAC) have traditionally been charged with implementing and reporting on the instructional technology goals that focus on providing know-how workshops for faculty and students, developing support structures for technology users and expanding the presence and variety of online and instructional technologies used in classrooms across the disciplines. The Central PMP goals have been effective in helping Hostos CC to strengthen its efforts to incorporate technology in learning environments.

The Center for Teaching and Learning (CTL) emphasizes scholarship of teaching and learning by nurturing the faculty spirit of inquiry and fostering a culture of continuous improvement striving for excellence in teaching, scholarship and service. The Center has traditionally been charged with responsibility for fostering interdisciplinary sharing of pedagogical strategies to promote teaching excellence;

preparing tenure-track and tenured faculty to engage in reappointment, tenure, or promotion processes; celebrating faculty achievements in teaching, scholarship, and service; promoting teaching innovations inside and outside of the classroom. With this in mind, the CTL has joined the OIT and CAC movement to support users of instructional and online technologies by focusing on the teaching and learning processes involved in using these technologies in the classroom. The online facilitator investigation group (OFIG) arose from the vision and eagerness of two faculty to discuss teaching with technology with colleagues engaged in the practice. The CTL enthusiastically supported this endeavor.

In early 2000s, the number of technologically enhanced courses approved for students was relatively low. The *Fall 2002 Schedule of Classes* identified three asynchronous and eight hybrid courses offered for students. The catalog shared definitions for both types of courses: Asynchronous courses had at least 80 percent of class activities taking place online; hybrid courses had at least 30 percent of class activities taking place online. Online activities were considered to be completion of assignments online and participation in online discussions. Currently, those definitions are found online on the OIT website (see <http://www.hostos.cuny.edu/oaa/facdev.htm>). The 2003-2004 PMP documents show that more than 15 course sections were web-enhanced. Many web-enhanced courses qualified because they included a Blackboard component (Blackboard provides faculty and students with an online space to share important course information and communicate with each other. It is available 24 hours a day, seven days a week assuming the online Blackboard system is fully functional.)

The Committee on Academic Computing developed standards and guidelines for teaching web-enhanced courses. The standards were approved by the College-wide Curriculum Committee in the spring 2004 semester (2003-2004 Performance Goals). Bilingual online tutorials were posted for Blackboard users in 2005 (2004-2005 Performance Goals). In 2006, the Committee on Instructional Evaluation presented a set of guidelines for conducting peer-observations of asynchronous courses which was approved by the college Senate (Observation Guidelines). By 2008, the number of web-enhanced courses increased to more than 50 sections and the number of courses converted to asynchronous or hybrid formats totaled more than 60 (2007-2008 Performance Goals). Also in 2008, a set of standards for online instruction prepared by the Committee on Academic Computing was approved for adoption. By 2010 more than 300 course sections were designated as web-enhanced while the number of asynchronous and hybrid course remained steady (2009-2010 Performance Goals). Three degree or certificate programs, including the A.A.S. in Early Childhood Education, are available in asynchronous or hybrid (part online, part face-to-face) format.

ONLINE FACILITATOR INVESTIGATION GROUP (OFIG)

In fall 2010, the CTL began collaborating with Business and Education faculty members interested in starting an interdisciplinary dialogue and OFIG was born. The planning team determined the format of the dialogue to be a sustained conversation among a specific group of campus members held over a period of time. The number of participants was capped at ten so that the meeting schedule could be dictated by participant availability. The planning team drafted a call for participants

and an application form. Applicants were asked to share the reasons for their interest and confirm their promise to attend all planned sessions. The topics of four sessions were shared in the information materials.

The planning team conceptualized the dialogue, originally, as a Brown Bag Lunch series of conversations that would explore teacher, learner, and support staff attitudes, challenges, interests, and questions about teaching with technology. After reviewing the literature, Randy Bass' concept of scholarship of teaching was thought to best capture the essence of what the online facilitators group was trying to accomplish:

In scholarship and research, having a 'problem' is at the heart of the investigative process. . . . But in one's teaching, a 'problem' is something you don't want to have. . . . Asking a colleague about a problem in his or her research is an invitation; asking about a problem in one's teaching would probably seem like an accusation. Changing the status of the problem in teaching from terminal remediation to ongoing investigation is precisely what the movement for a scholarship of teaching is all about. (Bass)

The team realized there was a need to investigate the strengths, weaknesses, opportunities and threats (SWAT) of teaching and learning with technology, and began asking questions including: What is being done? What is going well? What needs improvement? The team wanted to understand better the academic preparedness and overall performance challenges of faculty and students with respect to online teaching and learning. The team saw the OFIG conversations and presentations as a way of thinking about student ability to comprehend and retain information using a different method of instruction and engagement with faculty. The team was concerned about the faculty's ability to identify students struggling with the technology while learning the material and the effect that balancing the two would have on course persistence rates. What would be the implications of technology on institutional retention and graduation rates? The team wanted the series of conversations to encourage faculty to reflect individually and collectively by sharing anecdotal stories and experiences. The planning team realized that even with multiple meetings not all of the questions would be answered. However, the four planned sessions would be a start.

A series of one or one and a half hour facilitated conversations were crafted to emphasize a different aspect of teaching with technology during each session. The first session focused on the faculty experience and included a brief presentation on student learning styles. Based on the planning team's observations, very rarely had planned discussions of online teaching been designed in the context of student learning styles or learning theories. Rather, the focus of most faculty development sessions had generally centered on the mechanics of online teaching or had been an apology for online teaching. The second meeting engaged a panel of student presenters who were experienced with online learning. The OFIG participants found the student panel session to be one of the most helpful sessions offered to date. On the rare event where online teaching was the focus of professional development, the voice of the student was not heard or even considered in planning or in the development of curriculum. The third session was constructed to touch on the idea of assessment and evaluation of online learning environments and included surveys completed at Queens College and College of Staten Island, both CUNY

campuses, regarding student and faculty attitudes towards technology. Because of the complexity of assessment, the presenter from the CUNY Graduate Center targeted context and implementation of assessment to begin the conversation. The final OFIG meeting is scheduled for May 2011 to explore faculty accomplishments and best practices and to give OFIG participants an opportunity to celebrate personal successes and share feedback.

SESSION OUTCOMES

The first meeting of the OFIG conversation yielded a list of proposed ideas including but not limited to:

- Prepare for academic advisors a recommended list of questions to use with students interested in enrolling in an asynchronous or hybrid course;
- Revive the quiz that assesses the level of student preparedness for online learning;
- Revive and disseminate the standards and guidelines created to promote excellence in teaching with technology; and
- Prepare a research article based on the OFIG experience.

The next two sessions were panel presentations. The panel of students held in February hosted students who successfully completed online or hybrid courses and were from allied health sciences, business, and education degree options. OFIG participants identified the following areas as needing further discussion/exploration:

- The skills/pre-requisites for students who want to take online courses;
- Level of student motivation needed to do well in online courses;
- Ways to raise student levels of motivation;
- Perspective of less well motivated students who enroll in online courses;
- Type of teacher who can effectively motivate online learners;
- Types of teaching structures that work best in online learning environments; and
- Ways in which the new computer generation is impacting faculty life.

The third meeting was a panel presentation of three CUNY faculty members from the College of Staten Island, Graduate Center, and Queens College, respectively. OFIG participants identified ways in which their strategies for approaching online teaching were impacted:

- Use fewer podcasts;
- Incorporate more social networking;
- Consider more seriously the use of wikis as a discussion board for online collaborative [projects]; and
- Make Blackboard more interactive in all classes.

The last meeting is designed solely for the investigation participants to discuss best practices and address overall issues, concerns, and interests with each other. In

addition to the in-person meetings, research articles were provided to OFIG participants and an online blog was created.

FUTURE STEPS

Traditionally academicians have struggled with questions about effectively engaging apathetic and overburdened students. Technology offers many opportunities to make curriculum delivery more efficient and student friendly. The type of change that is needed, however, for Hostos to be a competitive institution in the academic-technology market is beyond the scope of OFIG and would require an institution-wide collaborative response driven by faculty and staff. The college has made significant gains in increasing the use and presence of instructional and online technologies in the classroom, in large part, due to the achievement of aforementioned PMP goals. The OFIG represents the organic way in which individuals with common interests can come together to reach for excellence. The importance of aiming for excellence in teaching with technology needs to be in the forefront of planning and action moving forward.

Some recommendations arising from the OFIG conversations for future initiatives or topics for discussion include, but are not limited to:

- Development of an action plan to support faculty transitions from the traditional classroom to the online classroom;
- Design and implementation of an educational campaign that disseminates college standards and guidelines for online teaching faculty;
- Design and implementation of an educational campaign that informs at-large faculty about what it takes to convert courses to asynchronous or hybrid mode and the time and skills it takes to teach them;
- Convene a task force charged with identifying characteristics of an effective online learning classroom and disseminating that information division and college-wide; and
- Develop and implement a guide for conducting excellent peer-observations that provide online teaching faculty with effective feedback and recommendations.

CONCLUSION

The technology movement outside of the institution is advancing rapidly with new and innovative technologies arising regularly. These technologies are engaging student interests and have many implications for higher education. Academicians are constantly asked to keep up with the technological trends as well as with other educational trends making the field of higher educational most responsive to the ever-changing world.

The OFIG is one group that was formed to investigate the concerns of faculty engaged in online teaching, whether asynchronous or hybrid, and to promote the merging of instructional and online technologies with traditional classroom settings. The OFIG conversations and presentations uncovered many areas of need among teaching faculty. Realizing the enormity of this burgeoning field, OFIG only began to scratch the surface of teaching with technology at Hostos.

The members of OFIG, the Center for Teaching and Learning, the Office of Instructional Technology and the Committee on Academic Computing are eager to continue the conversation. Everyone is welcome to join the OFIG blog on Blackboard. Interested individuals are encouraged to make their request by sending an email with name and statement of interest to ctl@hostos.cuny.edu. Additionally, the CTL is open to faculty with other pedagogical issues or concerns that should be investigated.

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SATURDAY IN THE PARK WITH FRANZ AND JOYCE

Julie Trachman, William Casari, Nelson Núñez-Rodríguez, Flor Henderson, Yoel Rodríguez and Jason Libfeld

How many of you have walked north of the Hostos campus along the Grand Concourse beyond Giovanni's? You may not be aware that located just a couple of blocks beyond the school and Giovanni's exists a rather remarkable landscape, which is in marked contrast with all the concrete found in our local South Bronx environs. As you walk north, your eyes meet a rolling hillside covered with lush foliage. Those who have made the trek have experienced the delight of walking through the park on a warm spring afternoon or catching the autumnal change in leaf color. For those who have not, this lovely site, almost a stone's throw away from Hostos is Franz Sigel Park, named after a German immigrant who served as a Yankee major general during the Civil War and later as a government official in New York City. The site itself also has historical relevance. Besides serving as a part of a pathway for local Indians, one of the park's high rocky ridges served as a spot for George Washington's troops to monitor the British troops camped on the Harlem River. A few more steps further north still heading up the Grand Concourse—just beyond the Court House—is another city park. This park is named after the journalist and poet (Alfred) Joyce Kilmer, most famous for his poem "Trees:"

I think that I shall never see
A poem lovely as a tree.

A tree whose hungry mouth is prest
Against the sweet earth's flowing breast;

A tree that looks at God all day,
And lifts her leafy arms to pray;

A tree that may in summer wear

A nest of robins in her hair;

Upon whose bosom snow has lain;
Who intimately lives with rain.

Poems are made by fools like me,
But only God can make a tree. (Kilmer 19)

Joyce Kilmer gave his life for his country—dying in France during World War I. The park that bears his name is very European in its style—quite befitting a park located on the Grand Concourse, which is sometimes referred to as the Champs Elysée of the Bronx (Rosenblum C25). Many park benches are spaced along the carefully landscaped trees, shrubs and manicured lawns. At its south end stands the whimsical Lorelei Fountain, protected by an iron fence and its “moat” of flowers. Also found in the park is a statue dedicated to Louis Heinz, a park commissioner of the late 1800s, who had the vision to design an inviting public park in this part of the Bronx.

These city parks provide denizens of the South Bronx a refuge—a place to commune in a more natural setting. However, these parks do suffer wear-and-tear from outside forces. Natural elements, such as winter blizzards and summer thunderstorms, wreak havoc on trees every year and contribute to the deterioration of fences and other park structures. Human abuse such as littering and vandalism is evident in many sites in these parks contributing to the need for park maintenance. This is especially worrisome considering that Joyce Kilmer Park underwent a five million dollar rehabilitation in the last decade (Montague CY7).

As such, the New York City Department of Parks and Recreation partnered with the City Parks Foundation to create Partnerships for Parks in 1995. Partnerships for Parks sponsors “It’s My Park Day” each fall and spring to encourage local residents to volunteer for clean-up, painting, and flower planting (among other seasonal needs) in neighborhood parks. Professor William Casari began the organization Friends of Franz Sigel and Joyce Kilmer Parks in 2007, working with Partnerships coordinator MariaLuisa Cipriano and Parks Keeper Julio Colon. In the spring the members painted park benches with neighborhood residents.

About a year ago, Professor Casari reached out to the Hostos community to bring others on board—including Profs. Julie Trachman, Nelson Nunez-Rodriguez, Flor Henderson and Yoel Rodriguez of the Natural Sciences Department.

Depending on where the need is the greatest, Partnerships for Parks works with the Parks Department and the volunteer coordinator to determine what tasks will be completed in a specific park. In 2010 Joyce Kilmer Park received a sprucing in the spring and Franz Sigel Park benefited from similar extra-special care in the fall.

The needs of each park are somewhat different given the different landscapes. In the spring, several faculty and members of the Hostos Environmental Sciences Club picked up trash and helped repaint the iron fence around the Lorelei Statue. The fence had begun to rust since being installed in 1999. In fall 2010, several faculty members were joined by both Mr. Jason Libfeld, Hostos student leadership coordinator, and a large cohort from the Hostos Student Leadership Academy. In

addition to picking up litter and painting trash cans green, the volunteers were asked to plant daffodil and tulip bulbs and tend to the street trees growing alongside the park on the Grand Concourse. Many of these trees had been planted recently and were not doing so well—constrained somewhat by concrete-like, sun-baked soil that was lacking in nutritional value and were somewhat impervious to water as a result. Students and professors alike joined together to gently loosen and break up the soil so as not to harm the surface roots, removing stone blocks to expand the soil area and, finally mulching and watering the trees. Volunteers finished caring for one tree pit before moving onto the next while other students watered trees in the park using plastic buckets. A faculty member observed that water was only available at one place in the park and that it became very heavy in the five-gallon buckets being used to water trees, making the group aware of the physical demands of the task. Thanks to the efforts and enthusiasm of the Hostos Student Leadership Academy, the fall 2010 “It’s My Park Day” was the most successful one yet.

BUILDING ON OUR EXPERIENCES

So far this activity has helped our school’s efforts inculcating GenEd skills in a small group of students and has increased their awareness of sustainable ways of living. Students have been given some exposure to environmental issues and how we can act as citizens to improve the world around us. Students were also able to demonstrate leadership as well as teamwork skills, not just alongside their peers but amongst the faculty members that were working side by side with the students. In turn, the faculty members enjoyed this opportunity to serve as mentors to the students.

As many of you are aware, a buzz word that has popped up on campus recently is “service learning”. After a campus presentation entitled “Service Learning Awareness Day seminar” in fall 2010 sponsored by the newly created Hostos Service Learning Committee, faculty are beginning to have a clue as to what service learning means and the value of this instruction style to student education. We even have inklings on how to incorporate service learning into our classroom instruction. As presented and supported by the pedagogical literature (Kuh; Ehrlich; Battistoni, Longo, and Jayanandha), service learning engages students by showing them how classroom studies relate to the real world. Activities that permit students to perform community service are carefully tied to academic content. After engaging in these activities, students are then asked to reflect on these activities after they have been performed. Ongoing research (Swaner and Brownell; Astin, Vogelsang, Ikeda and Yee; Wolff and Tinney; Simonet) shows that service learning translates into student academic success during that semester and beyond, having an especially strong effect on students who come from educationally underserved backgrounds. Participating in these types of classroom activities increase the odds that students will persist in their academic studies to graduate (Simonet; Wolff and Tinney; Yeh). Additionally, students who have participated in service learning activities while in school are more inclined to become civically engaged adults (Battistoni, Longo, and Jayanandha; Simonet; Astin, Vogelsang, Ikeda and Yee). Finlay and Flanagan note that academically successful young adults are more likely to be civically engaged. They suggest that “...sustained civic involvement such as volunteer service may be a means whereby young adults (especially those who grew up with fewer advantages)

are encouraged to continue their education and helped with navigating hurdles to educational progress” (Finlay and Flanagan). By incorporating service learning into the classroom, more of our college students might become life-long learners (an added benefit) as a result of a virtuous cycle.

We invite you to join us in considering ways to incorporate “It’s My Park Day” into your curriculum and some ideas are provided for your convenience in an addendum. One of the park supervisors, Mr. Abismael Rivera, suggested the possibility of Hostos working with the Parks Department to have students participate in activities at other Bronx park sites such as Mill Pond Park, the newly created park along the Harlem River.

Hostos is part of a larger community beyond the campus walls and the participating faculty members feel “It’s My Park Day” helped build community and raise visibility by getting us outside and into the local parks. Volunteers wore Hostos T-shirts during the activity and several local residents and passersby took notice. Furthermore, students in spring 2010 even had a chance to interact with State Senator Jose Serrano and communicate their concerns about local and global environmental issues as well as funding for higher education. Consequently, the public became aware of Hostos Community College as a dedicated community member who cares about the local environment.

ADDENDUM

This article primarily addresses the service learning aspect and how students helped with park maintenance. However, the parks can serve as a resource in other ways. Faculty can tie these resources into their classroom instruction as follows:

- a. Joyce Kilmer was a famous poet and his poetry can be explored.
- b. Franz Sigel Park has historical relevance. Students can walk through the park and see if they can locate where George Washington’s troops were situated during the Revolutionary War and then discuss the interaction between the American forces and the British forces occupying New York.
- c. A portion of an Indian pathway is located in the park. A discussion can occur about the interaction between the Europeans and the Indians. Students can also consider how Indian populations view nature as compared to Europeans.
- d. Franz Sigel and Joyce Kilmer participated as soldiers in two important wars—the Civil War and WWI, respectively. Students can discuss both wars after visiting the parks named after these two soldiers.
- e. Franz Sigel was a German immigrant, who ended up serving his newly adopted country in many capacities besides serving as a major general during the Civil War. Students can discuss the role immigration has played in this country’s history.

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EXPERIMENT IN SMALL-GROUP HOMEWORK TUTORING FOR REMEDIAL MATHEMATICS STUDENTS: PRELIMINARY RESULTS

Alice Welt Cunningham and Olen Dias with Nieves Angulo

INTRODUCTION

This paper presents the preliminary results of an 18-section experiment conducted during the Fall 2010 semester regarding the impact of small-group homework-completion tutoring on the performance of Hostos' remedial mathematics students. The research in question was performed pursuant to a grant, *Improving Undergraduate Mathematics Learning: The Effect of Small-Group Homework Tutoring on Remedial Mathematics Learning*, from the CUNY Central Office of Academic Affairs. Permission from Hostos' Institutional Review Board was granted for the conduct of the experiment and for the dissemination of the results.

The remedial mathematics classes in question are the two courses, Math 010 (Basic Math Skills) and Math 020 (Elementary Algebra), directed toward passing the two levels of the CUNY-wide COMPASS exit test (M1 and M2, respectively) which are necessary for graduation and college level work. Such courses meet four days per week, three times with an instructor and the fourth with a tutor. Traditionally, the tutor-led meeting, called the Math Lab, has followed one of two formats: (1) additional pencil-and-paper exercises related to that week's class-work or (2) tutoring using Pearson Publishing's MathXL interactive online textbook-based homework assignments. Most of the full-time and many of the adjunct instructors of these courses now require the use of MathXL.

This experiment focused on the tutoring component of the two remedial mathematics courses. Prior research indicates that small-group homework-completion tutoring improves student performance not only in the current but in subsequent mathematics courses (e.g., Hagedorn, Sahger, Siadhat, 2000; Perrin, 2004; Harootounian Quinn, 2008). In addition, an earlier Hostos study showed the efficacy for mathematics performance of using MathXL homework (Menil Dias, 2008). Thus, we hypothesized that having additional tutors available in the weekly Math Lab meeting of each course to lower the tutor/student ratio would facilitate the students' completion of their MathXL homework, improving their performance

on both the COMPASS and in class. Moreover, because mathematics learning is cumulative (e.g., National Academy of Education, 2009; National Mathematics Advisory Panel, 2008; National Research Council, 2001), and requires active student problem-solving rather than passive note-taking (e.g., Menil Dias, 2008), we took the view that assistance in completing assigned homework as soon as possible after each class was particularly important. Thus, the tutoring component of the course constituted the independent variable, and COMPASS performance and final class grades the dependent variables. These issues are important, as difficulty completing mathematics courses constitutes a significant contributing factor to low graduation rates, both at CUNY (e.g., Hinds, 2009; Hostos Community College, 2008) and nationwide (Biswas). This paper reports on the COMPASS component of the study.

METHOD

Study Design

As each of the participating students self-selected the respective sections through online registration without previous knowledge of the experiment, the research reflects a quasi-experimental design (DePree, 1998). The research involved 18 sections, 9 for each of the two remedial courses. Of those nine, six (three experimental with five tutors per section and three control with one tutor per section), used the Math Labs for MathXL homework-completion tutoring. The remaining three of the nine sections for each course, again with one tutor each, used the Math Labs for the departmentally prepared pencil-and-paper exercises. Thus, for each of the two remedial courses, the Math Lab classes involved three experimental sections with multiple tutors using MathXL for the Math Lab classes (E), three control sections with the traditional single tutor using MathXL (C1), and three control sections with the traditional single tutor using pencil-and-paper exercises (C2).

Classes ranged in size from 27-30 students. For the Basic Math Skills course, the experimental sections had 89 students, the C1 sections had 90 students, and the C2 sections had 86 students, for a total of 265 students. For the Elementary Algebra course, the three experimental sections had 88 students, the C1 sections had 89 students, and the C2 sections had 87 students, for a total of 264 students. Thus, overall, the experiment involved 529 students, of whom 177 (or 33.5%) were in the two experimental cohorts.

Data were collected regarding the gender and ethnic background of the students, as well as the number of their previous attempts at passing the COMPASS exit exam. Approximately ten percent of the students were under the age of 18. As the Hostos IRB required documentation of student consent only for those students under the age of 18, no data were collected regarding the ages of the remaining students.

In order to control for teaching variations, each of the pairs of sections using MathXL homework completion tutoring (E and C1) was taught during early morning hours by the same full-time daytime instructor. The pencil-and-paper sections were taught, again during early morning hours, primarily by adjunct instructors. With one exception, all of the instructors had substantial previous experience in teaching their respective courses. Additional non-experimental sections not included in the

original 18-section study design were taught by the instructors involved in both the C1 and C2 sections. Results from such sections may be taken into account as our analysis expands.

Study Effectuation

Due primarily to state budget constraints that delayed receipt of the grant funding, the research was not effectuated entirely in accordance with its design. While both sets of control sections (C1 and C2) had tutors available for the Math Lab sections by the third week of the 14-week semester, tutors for the experimental sections were not available until the sixth week of that semester. Therefore, the Math Lab tutors supplied to both sets of control sections came from a pool of pre-existing tutors, all with previous experience in teaching the respective courses, and many with higher-level credentials. By contrast, the new tutors were drawn primarily from Hostos students working towards their own degrees and therefore with no previous experience in teaching these or other courses. Finally, again because of the delay in hiring the experimental tutors, training by Pearson Publishing of the tutors in the use of MathXL was deferred from before the beginning of the semester until midway through the semester (the 7th of 14 weeks) and occurred just once rather than twice.

PRELIMINARY RESULTS

Initial results for each course (Basic Math Skills and Elementary Algebra) are attached as Appendices I and II at the end of this article.

Basic Math Skills

Table 1 reflects three comparisons for the experimental and two control groups: the COMPASS certification rate, the COMPASS pass rate of those students certified, and the COMPASS pass-rate of the whole class. (Instructors determine their students' eligibility, or certification, to take the COMPASS based primarily on the students' scores on a departmental midterm designed for this purpose.) In each instance, although the C1 group performed better than the experimental group (56% v. 51% certified; 81% v. 67% certified pass rate; and 43% v. 35% whole-class pass rate), the experimental group uniformly outperformed the C2 (pencil-and-paper) group (51% v. 45% certified; 67% v. 52% certified pass rate; and 35% v. 24% whole-class pass rate). Thus, the data strongly support not only the efficacy of student problem-solving using the interactive MathXL homework software, but

also the importance of beginning homework-completion assistance as early in the semester as possible.

Table 1

MAT 010: Average Percentages of certification rate and pass rate for each group.

Groups	Certification rate	Certified COMPASS pass rate	Class COMPASS pass rate
Experiment (89 students)	51%	67%	35%
Control-1 (90 students)	56%	81%	43%
Control-2 (86 students)	45%	52%	24%

Elementary Algebra

As shown by Table 2, the results for the upper level remedial course are less probative. Although the experimental group outperformed the C1 groups in terms of the COMPASS certification rate (53% v. 52%), both the COMPASS pass rates of those students certified (57% E v. 73% for C1 and 69% for C2) and of the whole class (31% E v. 38% for C1 and 43% for C2) were higher for the two control groups than for the experimental group.

Table 2

MAT 020: Average Percentages of certification rate and pass rate for each group.

Groups	Certification rate	Certified COMPASS pass rate	Class COMPASS pass rate
Experiment (88 students)	53%	57%	31%
Control-1 (89 students)	52%	73%	38%
Control-2 (87 students)	62%	69%	43%

ANALYSIS AND SUMMARY

Without taking into account the delay in the provision of tutors and the differential experience level of those tutors for the experimental cohorts for both courses, the C1 groups (using MathXL with a single tutor) performed better than

the experimental groups (using MathXL with multiple tutors). For Basic Math Skills, the COMPASS certification rate for the experimental group was only slightly lower (9%) than for the C1 group (56% C1 cert rate minus 51% E cert rate = 5 percentage point difference; 5 p.p. difference/ 56% C1 cert rate = 9% lower E cert rate). However, the certified pass rate for the experimental group was 17% lower than for the C1 group (81% C1 pass rate minus 67% E pass rate = 14% p.p. difference; 14% p.p. difference /81% C1 pass rate = 17% lower E pass rate). Similarly, the whole-class pass rate for the experimental group was 19% lower than for the C1 group (43% C1 pass rate minus 35% E pass rate = 8 p.p. difference; 8 p.p. difference/ 43% C1 pass rate = 19% lower E pass rate).

For Elementary Algebra, the results are substantially similar. The COMPASS certification rate was 2% higher for the experimental than for the C1 group (53% E cert rate minus 52% C1 cert rate = 1 percentage point difference; 1 p.p. difference /52% C2 cert rate = 2% higher). However, the certified COMPASS pass-rate was substantially higher (22%) for the C1 group than for the experimental group (73% C1 pass rate minus 57% E pass rate = 16 p.p. difference; 16 p.p. difference/73% C1 pass rate = 22% lower E pass rate), as was the whole class COMPASS pass-rate (38% C1 pass rate minus 31% E pass rate = 7 p.p. difference; 7 p.p. difference/38% C2 pass rate = 18% lower E pass rate).

Most importantly from the standpoint of the importance of the homework completion tutoring being tested in this study, however, in Basic Math Skills the multiple-tutor MathXL groups outperformed the pencil-and-paper lab groups notwithstanding the later tutoring start date. As shown by the table below, this result occurred in all three categories: certification rate; certified COMPASS pass rate; and whole-class pass rate.

Groups	Certification Rate	Certified COMPASS Pass Rate	Class COMPASS Pass rate
Experimental (n = 89)	51%	67%	35%
Control-2 (n = 90)	45%	52%	24%
Percentage Point Difference	6	15	11
Percent Difference $\left(\frac{P.P. Difference}{Control - 2Rate} \right)$	13% (6/45)	29% (15/52)	46% (11/24)

Specifically, the experimental group's certification rate was 13% higher than the C2 certification rate (51% E cert rate minus 45 % C2 cert rate = 6 percentage points difference; 6 p.p. difference /45% C2 cert rate = 13% higher E cert rate).

Similarly, the experimental group's certified Compass pass rate was 29% higher than the C2 pass rate (67% E pass rate minus 52% C2 pass rate = 15 p.p. difference; 15 p.p. difference/52% C2 pass rate = 29% higher E pass rate). Again, the experimental group's whole-class pass rate was close to 50% higher than the C2 pass rate (35% E pass rate minus 24% C2 pass rate = 11 p.p. difference; 11 p.p. difference/24% C2 pass rate = 46% higher E pass rate).

The same pattern did not hold true for Elementary Algebra, where both the MathXL and the pencil-and-paper control groups outperformed the experimental groups. Nevertheless, the Basic Math Skills result, showing across-the-board improved performance for the homework-tutored groups, both corroborates earlier research on this issue (Menil Dias, 2008) and strongly supports the importance to remedial mathematics performance of homework completion tutoring begun as early in the semester as possible.

CONCLUSION

For the most part, the preliminary results of our experiment are not robust. For both remedial courses, the single-tutor MathXL groups performed better than the multiple-tutor MathXL groups in both COMPASS pass-rate categories (certified and whole-class). These conclusions could be interpreted to suggest that a single tutor is more effective than multiple tutors for homework-completion assistance in the two remedial math courses' Math Lab classes. Nevertheless, we regard our preliminary results as pointing in the other direction. As noted above, mathematics learning is cumulative. Due to the state budget constraints that led to the delay in the provision of tutors to the experimental group as compared to both control groups (6 weeks as compared to 3 weeks into the semester, or close to half-way through the 14-week semester), students in the experimental cohort were unable to obtain the full benefit of the Math Lab tutoring classes. Because the cohorts that received homework tutoring earlier outperformed those that received such tutoring only later in the semester, we believe that our results support the importance for remedial mathematics students of homework-completion tutoring, the earlier begun, the better.

ISSUES FOR FURTHER EXPLORATION

Issues Still Outstanding from the Current Study

Another measure of performance in addition to the COMPASS pass rate, the final class grades in each cohort, has yet to be analyzed. Other data available from the current study but not yet analyzed include the effects of gender and ethnic background on performance in the various cohorts. The same is true of withdrawal rates and lab attendance rates. The literature suggests that, in the case small-group support of the type provided in our experimental sections, even those students who clearly understood that they were not doing passing work decided to continue with the course (Hagedorn, et al., 2000). In our study in particular, one of the instructor's paired MathXL classes reflected a substantially higher Math Lab attendance rate in the Experimental (multi-tutor) than in the C1 (single tutor) cohort, thus suggesting that her students valued the availability of more tutors to assist in homework completion. In addition, it might be helpful to consider the characteristics

of entering students. For example, although students self-selected their respective classes without knowledge of the experiment, one of the instructor's paired classes showed that 35% of the students in the experimental class entered having passed neither the M1 nor the M2 level of the COMPASS, while only 13% of the C1 control group entered with that characteristic. Similarly, comparing the numbers in each cohort of students repeating the course with those taking the course for the first time might further elucidate the results.

Issues for Subsequent Research

The literature suggests that students benefiting from mathematics homework-completion assistance show improved performance not only during the semester in which such assistance occurs but in subsequent mathematics courses and other courses as well (Hagedorn, et al, 2000, pp. 134, 151)). However, because of the impact of financial constraints on the results of this study, additional research regarding these students may not be probative on this issue.

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CRAFT AND CREATION

Ian Charles Scott

Under the last dead lamp
When all the dancers and masks had gone inside
His cold stare
Returned to its true task, interrogation of silence.
—George Mackay Brown, “The Poet.”

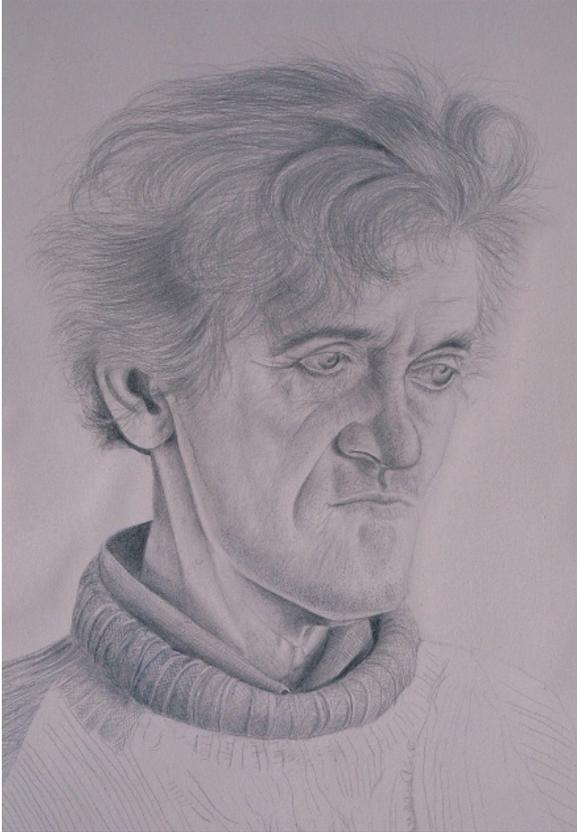
The cliché is that surprise meetings and unforeseen circumstances can shape our futures, that long-lasting influences build from stray moments, from chance. This is not one of those stories, indeed, it is the very opposite. This is the story of planned serendipity. I meant for this to happen.

In Scotland, George Mackay Brown’s presence is inescapable. He was my country’s greatest twentieth century poet, the only one able to capture perfectly its landscape, people and rhythms, even though he did so by focusing his life’s work entirely on one remote place, the Orkney Islands.

The Orkneys are a chain of about 70 craggy islands that ease out from the extreme northernmost point of Scotland. Serving as a dotted line separating the North Sea from the Atlantic, the Orkneys are home to puffins, harriers, whales, seals. The capital, Stromness, George’s lifelong home, is a windswept place, but surprisingly mild considering its northern exposure, rarely above 60 degrees in the summer, and rarely below freezing in the winter. In the summer, the sun shines for 18 hours, but in the winter, night ends at 9:00 am and begins again at 3:00 pm. Despite or perhaps in spite of this, the islands have been inhabited for 10,000 years, by the Picts, by the Vikings, by the Scots. George used every single fiber of Orkney history in his writing, from the sagas of the Vikings to the rituals of the Celtic missionaries, and before he died in 1996, he found acclaim as a poet, novelist, short story writer, librettist.

George was born in 1921, and with the exception of time he spent at Newbattle Abbey College and The University of Edinburgh, never strayed from his beloved

Orkneys. His breakthrough book of poetry, *Loaves and Fishes*, was published in 1959, and he published regularly for the next four decades. His last book of poetry, *Following a Lark*, was published in 1996.



Ian Charles Scott. *Life Drawing of George Mackay Brown*. c. 1986. 12" x 16". Silverpoint on prepared paper. Scottish National Portrait Gallery, Edinburgh, Scotland, UK.

I had been reading George's poetry for several years, but it was whilst I was studying in Dundee Art School that I finally put some of his lines into my own work, making a series of intaglio etchings. After graduating with my MFA, I felt confident enough to contact him. After hemming and hawing, I phoned him, and asked if he would be willing to pose for me. Now, George always had an exact circumscribed telephone manner, so I got a straight-forward reply: "Why alright, but I can't see what you would make out of my face, it's no Mona Lisa. Contact me when you're in Stromness."

At the time of that first phone call, I was in London on a scholarship to study old diving helmets in the National Maritime Museum at the time, but the next morning I was on the early train from Euston to Inverness. Nervously, and with great trepidation I knocked on the door of 3, Mayburn Court. The door opened and

there he stood. The poet looked just like his work, face and word had merged the inner and the outer.

The fisherman's sweater cable stitched its way up to that immortal chin. Set inside the head were a pair of remarkable eyes, huge blue grey orbs with a depth I had never seen before close up. After climbing the mountain of the face what startled me was the hair. Seeming as if it was in contact with elemental forces beyond my ken, it spiraled and gently ascended to the heavens in a flake grey cumulus cloud—it was only much later as George became more comfortable that he revealed that he had washed his hair specially for the occasion and whatever Orkney seaweed shampoo he used always caused this extraordinary effluvia.

In retrospect, George was in as much trepidation as I was. For me, he was the first famous person I had met who I actually admired. I had a Fabriano sketchpad and a huge arsenal of pencils. As I began sketching, George slowly became more reassured and the atmosphere unwound.

Ian Charles Scott. *Life Drawing of George Mackay Brown*. c. 1986. 12" x 16". Silverpoint on prepared paper. Scottish National Portrait Gallery, Edinburgh, Scotland, UK.

Those first drawings had awkward, difficult births, and that first evening had its own deep rhythm. George in the luminous gloom of his front room perched in his ecclesiastically purple draped rocking chair. A space had been carved out of the massive piles of books on the top of the couch for me to sit and draw. Interspersed every so often was the low undersong of the wind coming down the chimney, its uncanny tune joining into the scene just to remind us how far North we were, how isolated, how remote.

I had planned the whole venture as a one-day trip to get two or three good close studies of George; however, after the first day it was obvious from the ambience that I had that sensation that only emerges when a situation has become truly creative. A sure sign of acceptance in Mayburn Court was when the tea began to be diluted with Highland Park single malt whisky. Our proposed one afternoon evolved into five glorious days after which I left reluctantly.

That first meeting proved to be one that would resonate throughout the next 25 years of my career. I went on repeat visits, we kept in touch, exchanging many letters. As a subject, George has grown in importance to me, culminating in my participation in Simon Hall's award-winning book, *The History of Orkney Literature*. This is a book dedicated to history of the islands, and presents George as an iconic figure. It collected a large number of my images of George, and late last year, it was a joint recipient of the Saltire Society's Royal Mail Scottish First Book of the Year award.

George was the ideal mentor to meet when one was a student. He gave his time and inspiration flowed from him freely. He was someone who had forged his talents in the far North of Scotland as I was in the process of doing. Very few artists have emerged from this area into the international art world so it was wonderful to have the last great living writer as a friend and mentor. I am forever indebted to him for his magnanimous guidance:

I believe in dedicated work rather than in "inspiration;" of course on some days, one writes better than on others. I believe writing to be a craft like carpentry, plumbing, or baking; one does the best one can. Much mischief has been caused by

a loose word like ‘culture,’ which separates the crafts into the higher arts like music, writing, sculpture, and the lowlier workaday arts (those, and the many others like them, that I have mentioned above). In “culture circles,” there is a tendency to look upon artists as the new priesthood of some esoteric religion. Nonsense—and dangerous nonsense moreover—we are all hewers of wood and drawers of water; only let us do it as thoroughly and joyously as we can. (Brown)

George taught me how to value my craft and link it to heart and intellect.



Ian Charles Scott. *In the Sun's Last House*. c. 1986. 18" x 24". Mixed Media. Aberdeen Art Gallery, Scotland, UK.

Every word that George wrote was finely honed on the anvil of his experience and beautifully laid in place with the precision of a tapestry weaver. In my work in Hostos I have taken that same ethos into the painting classes. Complete absorption in the craft, linking it with intellect and experience. If one can create this context those students who are willing to explore will find true originality. In this dedicated concentrated voyage original ideas emerge through love and hard work. This is the miracle of true art that enriches and ennobles mankind.

George and I wrote to each other every week for 10 years or so, but one day, a little after Easter in 1996, I turned on the radio and the broadcaster announced

his death that morning. On my writing desk in Edinburgh was a letter I had been writing. Of course, it was never posted. Instead, that letter became part of an obituary I would scabble together for that the next day's edition of *The Scotsman*, which was due to carry copious accounts of the life of Scotland's greatest twentieth century writer.

George's autobiography was published after his death and although interesting it was not until the publication of *A Life*—Maggie Fergusson's biography—that a total account of George's pains, trials, tribulations and triumphs would be available.

Nothing in that book came as a surprise to me. I had always known that George's fame had come at a high cost. His depressions and failed love affairs and eventual monastic existence in his little council house in Stromness (albeit with a nice Swiss girlfriend down the road to attend to his every need!) were all necessary to forge the great work that emerged.

He was a man who suited old age as it was the best period for the magnitude of his vision. It would have been great to get another 10 or 20 years of brilliance from George's pen; however, there seems something very complete about the cycle. George's mystical number was 7 and he went in his 70th year. April as well for a Catholic Christian mystic, the perfect time to go, and which resulted in him being buried on St Magnus's Day—the patron saint of Orkney who George immortalized in his works.

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NOT SO FUN CITY

William Casari

When the handsome and charismatic John Lindsay is elected mayor of New York in 1966, he inherits a city whose residents still see hope for positive change despite the tumult of a notorious decade and gnawing fiscal problems. On his first day as mayor, the Transport Workers Union (TWU) goes on strike against New York City Transit and shuts down bus and subway service. In response the mayor walks from his hotel room to City Hall and remarks “it’s still a fun city.” The “fun city” line becomes the catch phrase of his term (The Fun City). Up in the Bronx, which Lindsay had visited during his campaign, things are changing. Many white-ethnic Irish and Jewish families are leaving the borough; their Puerto Rican and African-American replacements tend to have a lower educational and socioeconomic level than their recently departed neighbors. The Bronx continues to grow as a broad multi-racial working class area and the Grand Concourse, a higher income area until about 1963, sees its first black resident move into a Concourse apartment in the mid-1960s. At the same time, specific blocks in the South Bronx are showing signs of strain, though the picture isn’t yet crystal clear. Race and ethnicity aren’t too far from anyone’s mind in New York City at the time, in the two years before Martin Luther King is assassinated.

The social fabric of certain neighborhoods is fraying with a rise in street crime and drug use coupled with population and economic shifts that result in vacated apartments and eventually, abandoned buildings. However, as late as 1971 most of the Bronx is physically intact. The worst is yet to come and will be a result of strategies the city implements based on faulty data supplied by the fire department to unquestioning consultants; a massive out-migration of Bronxites; and other factors resulting from the early 1970s urban swirl. By 1977, during Mayor Abe Beame’s administration, the South Bronx is known worldwide as a desolate, burned-out wasteland, site of the worst non-war-related urban carnage any inner-city neighborhood has ever known.

Sound like a fictional TV drama or a fantasy version of the computer game Sim City? Sadly, it's exactly what happened, as detailed in two books that go in depth "sounding the alarm" about why so many buildings and lives were destroyed in the Bronx as a result of fires. How did this happen to an area that had been a secure and stable neighborhood just a few years earlier? What really caused the fires in the South Bronx and what role did the city and its consultants play in the devastation?

In 2007, I was finishing my master's thesis, *Concourse Dreams: A Bronx Neighborhood and Its Future*, and my friend J.J. Brennan—an amateur Bronx historian—asked if I was including anything from a book called *A Plague on Your Houses* about the housing abandonment and subsequent fires that had consumed large swaths of the South Bronx. I had never heard of the book and immediately began reading about the connection between new fire alarm call boxes that actually resulted in less manpower responding to fires; a consulting firm called RAND that recommended closing/combining fire companies where they were needed most; and the connection between fires and contagious disease. My interest was piqued about the origin and spread of these destructive fires, of which only seven percent were attributed to arson. It was a missing chapter from my thesis.

I also read Joe Flood's *The Fires*, which details the rise of citywide Fire Commissioner John O'Hagan, who presided over the worst of the 1970s fires, a period known as "the wars" in FDNY lore. When Lindsay was elected mayor, O'Hagan, "who strongly believed in the use of statistics and systems analysis to organize the department, became one of his leading allies" (*The Fires*). Lindsay also sought the advice of the RAND Corporation (a contraction of the words research and development) and "on the surface it was a perfect alliance as RAND needed new clients, Lindsay needed a blueprint for rational government and O'Hagan needed support for his ideas for making firefighting a scientific discipline" (*The Fires*). It turned out to be a disastrous combination for poor and minority neighborhoods in New York, especially the South Bronx, already redlined by banks and left to fend for itself by the City of New York. Reading both books gives the reader a new understanding that many of the fires that consumed the Bronx south of Fordham Road could have been contained better, and—even more shockingly—that in some ways the city was a silent partner in the area's destruction, wanting to clear land for more appropriate uses. In presenting these two books along with other related sources I intend to explain the role of Housing Commissioner Roger Starr, an advocate for planned shrinkage in declining neighborhoods, and show how media portrayals often created, then perpetuated, stereotypes about the residents and the area. The authors of the following book, no strangers to numbers as trained epidemiological researchers, add up the data to create a social analysis of what happened.

A PLAGUE ON YOUR HOUSES

A Plague on Your Houses: How New York Was Burned Down and National Public Health Crumbled, by Deborah Wallace and Rodrick Wallace, "is a scorching indictment of the decision to close fire companies in New York in the 1970's and a frightening study of the way misguided and malevolent social policy can spark a chain reaction of enormous and unforeseen urban collapse." (Wallace). The authors outline how the destruction of neighborhoods through abandonment and fires

eventually led to the spread of crime and disease not only in those neighborhoods but in the entire greater New York metropolitan area. The authors and reviewers also cite the social policy of “planned shrinkage” advocated by Housing Commissioner Roger Starr. While Senator Daniel Patrick Moynihan advocated for “benign neglect” of neighborhoods that were suffering, Starr went even farther pushing for policies that would accelerate the demise of built environments so the land could be cleared for other light-industrial uses like the Hunts Point Food Market (which today brings 60,000 truck trips a week through the area). In *Plagues*, the Wallace’s devote an entire chapter to “benign neglect” and “planned shrinkage,” linking those policies to the destruction of neighborhoods like the South Bronx where waves of conventional and arson fires followed.

In reviewing the book for the *Journal of Public Health Policy*, David Rosner writes that this thoughtful book integrates both a technical quantitative analysis with a profound social analysis of the “ways that the urban market for land, the capitalist use of space, and the social relations of class all conspire to undermine the health of the rich and poor alike.” (114). Taking a look at the South Bronx during the time period of 1974-1977 shows there was an “epidemic” of fires clustered in place and time. Thus there was a slow destruction of the community that resulted in out-migration (116). Loss of housing and homelessness were the most obvious manifestations, along with a swelling of welfare clients burned out of their homes and then re-housed in places like the Concourse Plaza Hotel near Yankee Stadium, which since 1923 had been a social gathering place for weddings, bar mitzvahs, Rotary meetings and an “apartment hotel” for Yankee ballplayers during the season. The eight-building Noonan Plaza Apartments in Highbridge, considered an Art Deco showplace by architectural historians and an address of distinction, was also used to house displaced people. As the City of New York began to move the newly homeless in, both of these properties began deteriorating causing longtime tenants and residents to move out as the quickly changing demographics reinforced racial and social fears during the Lindsay administration in the late 1960s. Disintegration of the social fabric in many neighborhoods was accompanied by the physical destruction of apartment buildings, a process that had begun in the mid-1950s as the Bronx began to change racially and post-war demographics shifted as children who had grown up in the area rejected the world of their parents and began to move to Westchester, Long Island and the newly opened Co-op City, a massive housing development near Pelham Bay Park in the Bronx.

The Wallace’s first published their findings in academic journals and were written off by RAND as “leftist ideologues with an axe to grind” (Flood 208). The Wallace team was accusing RAND and the Lindsay administration of a malicious attempt to burn down poor neighborhoods. While some felt the Wallace’s political claims were baseless, their technical criticisms of the models, which RAND largely ignored, were correct (209).

THE FIRES

Brown University Urban Studies Professor Samuel Zipp wrote a book review in *The Nation* about Joe Flood’s 2010 book. In *The Fires: How a Computer Formula, Big Ideas, and the Best of Intentions Burned Down New York City*, Flood explains how New York City Mayor John Lindsay hired consultants from the RAND Corporation

to help modernize municipal service delivery. Applying their formulas and number crunching to the fire department—and relying heavily on faulty, self-serving, inaccurate information supplied by the Fire Department—the RAND “whiz kids” recommended an overhaul of fire station locations and the number of engines responding to fires, based on flawed firefighter response time data (Zipp 39). These decisions would have tragic consequences. The city instituted service cuts and reallocations that created dangerously unprotected spots in the South Bronx like Charlotte Street, East New York in Brooklyn and the Lower East Side in Manhattan—all poor, minority neighborhoods ravaged by housing abandonment. “Mayor Lindsay’s experiment in systems analysis, Flood says, ‘burned down New York City.’” (39).

When interviewed about his book, Flood tells Marc Ambinder the following about “what happens when politicians paint by the numbers:”

According to the models, they [New York City] could close busy fire companies in fire-prone areas without much impact on overall service. For the city, that meant saving money, focusing budget cuts in politically weak areas and supposedly not losing much fire protection. That was exactly what everyone wanted to hear, and they ran with it. It just happened to be wrong.

Flood details John O’Hagan’s rise to Chief of the Fire Department and how his philosophy fit in perfectly with Mayor Lindsay’s desire to try and bring control to the city using models and numbers.

Both *Fires* and *Plagues* prominently cite Roger Starr, Mayor Beame’s Commissioner of Housing Preservation and Development and former RAND employee, as a central character in this drama. In an article Starr authored for the *New York Times* titled “Making New York Smaller” he argues for reducing the footprint of city services in grim economic and fiscal times. Granted the fiscal crisis during this time was severe and the city needed new sources of revenue that didn’t involve new taxes or help from Washington, but what he writes near the beginning of the article is telling: “we could simply accept the fact that the city’s population is going to shrink, and we could cut back on city services accordingly, realizing considerable savings in the process” (Starr). Of course this begs the question of what neighborhoods were targeted for a reduction in city services and how were they chosen. Were these the areas that were already seen to be in decline or had quickly-changing demographics? Many people were leaving the Bronx because of unsafe conditions brought on by housing abandonment and fires that were themselves a result of reduction in fire services and the social breakdown of neighborhoods. Yet, there was actually a need for new housing at the time apartments in the Bronx were burning down.

In another startling sentence Starr gives up on the American Dream altogether: “essentially planned shrinkage is a recognition that the golden door to full participation in American life and the American economy is no longer to be found in New York” (Starr). The reader is left to wonder if Starr and his generation were the “last pioneers” to participate in the dream of urban America and now the huddled masses will have to look elsewhere. Readers may also question why Starr invests no intellectual capital answering the very questions he poses; the final solution is

accelerated shrinkage of the South Bronx in order to clear the land. The solution is presented by Starr with no alternative discussion or questions.

The article authored by Starr is just one example of how media portrayals were used to stereotype neighborhoods and advocate for their demise from downtown city planners and consultants. The media are often mentioned as another culprit in the demise of the South Bronx because local newspapers and national magazines like *Newsweek* highlighted housing abandonment and incited racial fear, well before the major fires consumed neighborhoods. Was the media simply reporting what was happening, or was it fanning the flames, so to speak? Did the conversation move to a more serious level after people read major articles in the *New York Times* and other leading periodicals? Bronx history buffs and others would argue that the media was complicit. This also begs the question of which came first—the fires or the abandonment? Or was it a combination of the two?

Steven V. Roberts, writing in the *New York Times* in the summer of 1966 after John Lindsay was elected, reports the following:

In the last decade Negroes and Puerto Ricans have gradually moved north and west from the ghettos of the South Bronx and Morrisania, looking for better housing in the narrow, well-kept avenues parallel to the Concourse. A recent study by a social service agency predicted that the area, 98% white in 1950, would be less than 50% white in 1975. The flight of the white middle class, almost imperceptible for years, has started to pick up. The slow exodus that opened good apartments to minority families has been accelerated by their presence. In certain spots a familiar pattern has begun to recur. Buildings managers have grown careless about maintenance. City services—police protection, sanitation, and recreational facilities—have grown less reliable (28).

Another excellent example is “City Disease,” an editorial written by Stewart Alsop for *Newsweek* magazine in February 1972, six years after the Roberts story. The date is important, as much of the South Bronx was still standing; however, many apartment buildings were abandoned which caused the fall, like dominoes, of other buildings in the same neighborhoods. Roger Starr served as Alsop’s Bronx tour guide and one building in particular on Washington Avenue made Alsop’s point succinctly: “there is no mystery about what happened to 1176 Washington Avenue. The black people who lived there were terrorized by heroin addicts in need of a fix. When life became unlivable, they escaped, and there were none to replace them. The owner of the building abandoned it”(96). The thread of racism is barely hidden: a building so bad even black people can’t live there and implying that building abandonment came before the fires.

Alsop expands on junkies who moved in and stripped the building of anything valuable, and then set fire to the structure. Later he compares the Bronx to an unlivable desert where city and federal “slumlords” own the buildings abandoned by private owners as the neighborhood deteriorates further into an urban cesspool. Alsop claims this process is killing our great cities. “The disease spreads

out inexorably from the black slums to the downtown areas, and even threatens the close-in suburbs. Can the disease be halted”(96)?

This echoes the Wallace’s point about contagious diseases spreading out from inner city areas to white suburbs. The dramatic tone of the article also plays on any *Newsweek* readers’ fears of “dark” inner city neighborhoods populated by drug addicts and black and brown people. These and many other media portrayals set the tone for the “new” public image of Bronx neighborhoods juxtaposed against the Grand Concourse itself, once a sought-after address considered the Park Avenue of the Bronx.

I was so surprised to read Alsop’s editorial written well before the wave of fires reduced many South Bronx streets to rubble and the destruction became known worldwide that I asked lifelong Bronxite and scholar Sam Goodman, who grew up in the Mt. Eden area of the Concourse, to read the Alsop piece and give me his reaction. Goodman is currently an urban planner with the Bronx Borough President’s Office and lives on the lower Grand Concourse:

This article reminds me of the hundreds of similar writings. The material impresses me on two counts. First it appears to blame drug addicts for much of the problem, failing to note that these people were placed into the Bronx by the city itself and then abandoned, allowing them to shoot anyone with any resources in order to shoot up. Second, Roger Starr is the person who actually advocated for policies that today we consider the prime cause for the very conditions outlined by the author. Hindsight is always 20-20, still it’s interesting to note that much of the Bronx was still intact in 1972. It would be at least another five years before things really worsened and another ten years for the borough’s population to drop by 303,000 residents. You might say that like so many previously printed articles, the intent of the writer was to encourage the destruction by often referring to the Grand Concourse as being threatened, without suggesting that anything was being tried to stem the process. Of course, we know nothing was. (Goodman).

Based on the writings of Roger Starr, Stewart Alsop and other journalists as well as evidence presented in *A Plague on Your Houses* and *The Fires* readers can infer—but not guarantee—that this thinking, planning and media reporting led to the municipally approved destruction of the South Bronx; the many pieces of the jigsaw puzzle came together to create urban chaos. While this information must be considered in the context of what was happening in the entire city and nation at the time, no other urban area was as devastated as the South Bronx. While many external factors were also at work during this urban swirl, John Lindsay was the man in charge. With that in mind, the role of the RAND Corporation and the manner in which its data were interpreted and used by Fire Commissioner John O’Hagan with the mayor’s approval cannot be underestimated. John Lindsay had hoped crunching the numbers and computer modeling would help him get a stronghold over the City of New York but those hopes were lost on the streets of the South Bronx.

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OCCUPATIONAL STRESS AND BURNOUT OF ACADEMIC STAFF—A REVIEW OF CURRENT LITERATURE

Héctor López

INTRODUCTION

This article broadly addresses job-related stress and burnout with emphasis in the area of education. However, a comprehensive review of the literature on job-related stress and burnout is beyond the scope of this article (Lopez, 2000). Conversely, science and scientific practice that predates 2000 is used as a baseline and the article builds upon that groundwork from leading research in the past 10 years. The past decade has brought a host of new developments in job-related stress, burnout research and scientific practice. These new developments have also confirmed many aspects of earlier research and findings in the field.

Extensive research has been conducted and published related to occupational or job-related stress and job burnout (Toppinen-Tanner, 2002). While the literature may be characterized by with disagreement and confusion over the definition and measurement of stress and burnout, most investigators often agree that burnout is a negative reaction to occupational stress.

Stress, an adaptive response, is often defined as the relationship between the person and the environment that is appraised by the person as taxing or exceeding one's resources and endangering one's well-being (Demerouti, 2010). Continued stress over time can not only have a depressing effect on an individual's job satisfaction and performance, it can also negatively affect many areas of one's personal life as well. The longer the stress process is sustained over a prolonged period of time the more harmful it becomes. Unending and unmitigated stress also acts as a breeding ground for burnout.

While stress is considered an adaptive response, burnout is a psychological syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who work with other people in some capacity. It is characterized by physical and psychological fatigue resulting from prolonged exposure to job-related stress (Melamed, 2006). Burned out employees are

fatigued, depressed, irritable, and bored. They have become indifferent to the world around them—their work responsibilities, family, friends and colleagues alike.

Occupational stress is not always negative. Eustress represents a low level of work stress that is good or produces a positive outcome, such as enhanced drive and increased self-motivation. Depending on an individual's tolerance for stress, referred to as 'hardiness' in the stress and burnout literature, a certain level of stress is needed for individuals to function at their peak. It is the unmitigated high levels of stress that cause individuals to burnout and dissociate themselves from their specific responsibilities.

Many sources of stress have been linked to a variety of occupations, i.e., health care and emergency room professionals, firefighters, police officers, librarians, lawyers, and even blue-collar workers but particularly to education (Barkhuisen, 2008). Researchers have identified job dissatisfaction, diminished professional performance and health concerns as manifestations directly associated with stress and burnout (Biron, 2008).

The experience of stressors at work created by job demands or job strain, such as excessive work demands or unrelieved work overload, lack of support from immediate supervisor, performance and time management anxiety, misunderstanding of communications, and rapid personal and work environment changes often results in depressed mood, exhaustion, poor performance, attitudes and personality changes.

The personal costs of burnout include divorce, substance abuse, emotional disruption and loss of health (Pandey, 2011). A significant portion of the cost of burnout for employers, estimated in the billions of dollars, is the monetary cost of medical expenses resulting from job stress and burnout-related disorders—e.g. absenteeism, lower productivity, over-utilized health benefits, turnover and workers compensation claims due to occupational accidents (Ongori, 2008). It is estimated that organizations, profit and non-profit, underwrite an average cost of \$75,000 per employee due to stress and burnout-induced disorders.

STRESS IN ACADEMIA

Many studies conducted in different countries have shown that education is generally accepted as being a highly stressful profession and of specific relevance in the teaching profession today. In addition, they must deal with career development, stress arising from attempts to cope with ever increasing job demands and expectations of superiors. Furthermore, widespread criticism of our educational system, fiscal constraints, heightened job pressures and reduced professional satisfaction has contributed to the prevalence of stress and burnout (Schaufeli, 2009). Studies examining the effects of job-related stress and burnout on faculty single out their intention to ultimately or voluntarily leave the teaching profession (voluntary turnover or premature retirement), or look for alternative sources of satisfaction and explore other career possibilities (Houston, 2006).

According to a 1998 study (Hunter, 2007), fifty percent of America's beginning school teachers leave the classroom within their first seven years of experience and never return. Their pre-teaching ideals fade quickly when they are faced with the realities and hassles of the everyday classroom environment. Additionally, many public colleges and universities insist that marginally prepared students be allowed

in the classroom. Faculty finds that dealing with these unmotivated, underprepared students is a consistent source of stress.

Faculty is expected to perform complex work in an increasingly demanding environment. Traditionally, higher education have defined the role of faculty according to the three domains of teaching, research, and service, with primary emphasis placed upon the teaching and research aspects and secondary emphasis upon service or administration. Add to this the impact on the workloads of faculty given increased expectations for measurable outputs, responsiveness to student and community needs, and overall performance accountability.

The growing literature on faculty work-life has come in response to a series of highly critical public criticisms of higher education and faculty performance, i.e., graduates from post-secondary programs lacking adequate reading, writing, and critical thinking skills. There is the general feeling in American society that schools are not doing as well as in the past in educating students. In the eyes of the public teachers and faculty share some of the blame. The great majority of studies on faculty work-life describe a high degree of satisfaction among faculty; however, they also describe faculty as dispirited, fragmented, and devalued.

There also appears to be an erosion of the morale of faculty as a result of the attack on their professional priorities, time pressures, publish or perish syndrome, excessive administrative paperwork, faculty workload and what tasks faculty should work on, working with inadequately prepared students, poor reward systems, lack of confidence in their institutions in terms of administrative and professional support, and the erosion of their quality of life (Byrne, 1998). Teachers and faculty are expected to teach, counsel, research, lecture, publish, participate in community service, serve on committees, and prepare new curricula. Equally important is the impact of continuous fiscal constraints of funds for education. Overall, this has created a situation with significant potential for stress and burnout among educators.

In order to alleviate the negative consequences of workplace stress, and its ultimate manifestation, burnout, administration need to play a more central role in helping employees achieve higher performance levels. Once stress has been identified, there is a need to introduce workplace stress management interventions and successful individual techniques for coping with stress. These efforts should be directed at buffering the effects of stress, humanizing a work climate that maximizes employee performance and minimizes the negative aspects of job stress and burnout present in the work environment.

INTERVENTION STRATEGIES AND COPING WITH STRESS

There is a need to increase awareness of the stress and burnout syndrome, and describe and recommend effective methods of preventing and reducing the negative effects of burnout. This can be achieved through a joint initiative between administration, chairpersons and faculty.

Individuals must develop effective personal strategies to regain control and reduce their level of stress. Similarly, organizations must help their employees by using organizational strategies to reduce work stress and restructure the effects of burnout in the work environment (Sidle, 2008). Awareness and behavioral efforts to master, reduce or tolerate the internal/external demands that are created by stress must be introduced and made readily available in the immediate work environment.

Coping strategies and styles refer to consistent and stable preferences for particular strategies for dealing with stress. Coping behaviors (or processes) represent efforts to effectively deal with demands that are created by a stressful situation.

Whatever coping strategies, styles or processes are used as the stress response and coping mechanism, by successfully coping with a stressor, individuals are able to re-establish control over their life. Additionally, these individuals are able to more effectively manage a situation and protect or enhance their well-being (Brunel, 2010).

Personal and job stress intervention techniques abound in stress literature. Of interest is that the particular intervention technique(s) used by an individual in a stressful situation are themselves modified by the individual and subsequently evaluated by the individual as to the efficacy or outcome of the stress response: What triggered the stressful situation? What stress response or coping strategy did I use? Did it lead to a healthy or unhealthy consequence?

The following personal four-step approach may help individuals initially cope with the negative effects of a stressful situation:

1. Being aware of the problem.
2. Taking active responsibility for doing something about it.
3. Achieving some degree of clarity on those factors or situations that trigger personal stressors.
4. Developing new tools for coping with and improving the range and quality of tools for adapting positively to the pressures stress generates rather than attempting to completely eliminate it.

Though there are no easy solutions for handling stress, there are some preventative and/or remedial efforts that help to ‘buffer’ the negative effects of stressful personal and/or job demands on health and psychological strain. Effective coping techniques or skills can be developed, and existing styles reconstructed to fit a particular situation. Critical is what works best in workplace stress management interventions and works best for the individual.

Other specific examples of intervention strategies, intervention techniques and stress management training programs are discussed below.

INDIVIDUAL TECHNIQUES FOR MANAGING WORK STRESS

Planning—Planning is a central skill for managing the stress of one’s personal work environment, commonly referred to as person-environment fit (P-E) (Liu-Qin, 2008). In the work setting, personal planning involves looking into the future, identifying goals and possible job stressors, and developing a strategy to achieve goals, while avoiding the negative impact of anticipated stressors. Individuals should plan ahead to avoid distressful mismatches between job demands and personal skills and interests and between their values and those of the organization. The goal is to manage your workload—work smarter, not harder.

Overload Avoidance—Because work overload (having to do too much in too little time) triggers physiological reactions with related adverse health effects for the individual, managing one’s total workload to avoid overload is desirable. This may be accomplished in a variety of ways, such as identifying and eliminating busywork

and learning to delegate tasks, declining whenever possible requests that are unreasonable or overwhelming, and renegotiating obligations that are no longer feasible. Considerable skills and experience may be required to control one's obligations in a demanding or insensitive environment.

Social Support—Refers to the overall levels of helpful social interaction available from both co-workers and supervisors, family and friends. It also includes a variety of behaviors by which an individual shows consideration, acceptance, and concern for the needs and feelings of other people in the context of demanding and stressful jobs. Active social support may help a person in managing the personal work environment in at least two ways: first, through dialogue with colleagues and coworkers, the person is able to reframe how a stressor is experienced and second, colleagues and coworkers may provide instrumental support by sharing demands, which helps ease the stress load on the individual. The role of social support is one of the most frequently mentioned mediators in stress and burnout research (Beehr, 2010). Research generally supports the notion that social support can help with coping and that it can have beneficial effects on various health outcomes, problem-solving efforts and personal accomplishment (Kahn, 2006).

STRESS MANAGEMENT TRAINING PROGRAMS

Organizations can also introduce stress management training, also referred to as Stress Management Interventions (SMIs), for preventing job strain and channeling job stress into healthy and productive outcomes. The following activities are widely used in organizations today:

Time Management Training—Deadlines, productivity objectives, and project timetables bring individuals face to face with time and time urgency. This confrontation can create significant level of stress. Time management represents a set of skills and attitudes that can be highly effective in reducing time stress and improving productivity. While there are many approaches presented in time management literature (Hafner, 2010), strategies are often associated with the recommendation to set personal goals and prioritizing importance over time urgency. The wide scope of activities include planning, allocating time, setting goals, delegation, analysis of time spent on activities or projects, monitoring work activities, scheduling, and prioritizing job demands (Morgenstern, 2004). Increased job satisfaction and peace of mind and organizations that are more efficient are important consequences of effective time management. In addition, time management training can lead to an increase in perceived control of time and a decrease in perceived stress.

Knowledge Acquisition Programs—These programs provide techniques that help individuals in the work environment deal with such stressors as work overload, uncertainty, role demands, ambiguity of organization changes, introduction of new programs and cutting edge education technologies, and workplace incivility (Sidle, 2009); i.e., co-workers with abrasive and offensive personalities, rude interruptions and discourteous behavior, sarcastic teasing, personal insults, humiliation and public shaming, and a lack of regard for others. Workplace incivility can have a negative effect on employee morale and productivity and can lead to stress, distraction, and low job satisfaction. Administrators need not wait for employee complaints, but should install mechanisms that will prevent uncivil conduct or behavior in the work environment (Andersson, 1999).

Comprehensive Health Promotion Programs—These are increasingly being set up as health promotion and skill-based programs or ‘Wellness Programs.’ Examples at Hostos CC include: Balance—The Newsletter for Health and Wellness, Wellness Yoga Classes, Wellness Tai Chi Classes, Stress Reduction Sessions, Mindfulness Meditation Sessions, and the Hostos Walk/Stairs Group Campaign coordinated by Professor Iris Mercado, Health Education Unit. These programs/activities teach individuals how to enhance their lifestyle, including techniques aimed primarily at smoking and weight control. While these programs may get short-term attention, greater awareness and consideration to health promotion programs or preventative management actions may be instrumental in coping with the debilitating effects of job-related stress.

IMPLICATIONS FOR EDUCATIONAL PRACTICE

Successful stress and burnout awareness, prevention and treatment efforts often require both individual and organizational changes (Sutton, 2007). Similarly, organizations must help their employees by using coping strategies to reduce work stress and diminish the effects of burnout in the work environment. Review of the literature on stress and burnout clearly point out the following implications for faculty and administrators as essential.

Administrators should play a critical role in recognizing, diagnosing and reducing the organizational factors that produce stressors and the associated effects of work stress and burnout.

Administrators should be aware of the stress, and its ultimate manifestation burnout, that faculty experience in academia. An understanding of the nature of faculty stress can assist administrators in their efforts to minimize the levels of stress and burnout experienced in the academic environment.

Administrators who are responsible for hiring and evaluating the job productivity of faculty and other teaching-staff should be mindful of those factors associated with job-related stress among faculty and chairpersons. By understanding these factors, administrators can develop mechanisms to minimize the stress for faculty and chairpersons in the academic environment.

Administrators need to introduce successful organization intervention efforts. These efforts should be directed at humanizing a work climate that maximizes faculty performance and minimizes the negative aspects of faculty stress and burnout.

Finally, administrators should encourage faculty members, chairpersons and other administrators to attend stress management seminars. By attending stress management seminars, these organization members can develop coping strategies and coping styles for handling stressful situations.

SUMMARY

The effects of stress and burnout are varied and have received extensive attention in recent years. As educators progress through the first and second decade of the twenty-first century, organizational change will continue to be a major source of stress for organization members in terms of work overload, lack of control, insufficient reward, absence of fairness or equity, and work-home demands. Stressed and burned out employees are less productive, less energetic, and less interested in their jobs. They are fatigued, depressed, irritable, and bored.

There is a need to increase awareness of the stress and burnout syndrome, and to describe and recommend assessment and effective methods of preventing and reducing the negative effects of stress and its ultimate manifestation burnout—an unmitigating health impairment process. Finally, administrators need to increase awareness of the impact of job stressors on well-being from the perspective of job satisfaction, commitment, and job performance. This can be achieved through a joint initiative between administration, chairpersons and faculty.

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SMALL GROUP INTERACTION AND COOPERATIVE LEARNING IN BIOLOGY LAB SETTINGS

Flor Henderson

Students in most science classes at Hostos bring a wide range of experiences, interests, and pre-requisite skill levels. Faculty, therefore, have to teach the foundations of scientific knowledge and scientific inquiry to a student body with different levels of preparation (Stayer, 2007). Although there is plenty of literature on teaching strategies, among them jigsaw technique, gallery walk, concept sketch, role playing to name some (Tewksbury, 2005), not many of these widely-used strategies are easily applicable to fields where knowledge builds upon previous knowledge. In teaching foundational courses it is especially important that basic concepts are fully understood. Therefore instructors have to explore strategies that will improve the delivery of concepts and to enhance student learning. My experience teaching in introductory biology for several years had been a colossal adventure with mixed outcomes.

This article describes one of the teaching strategies I designed for general biology laboratory sessions. General Biology is a course that contains copious material which has been divided into fourteen labs. Some are too ample to cover in a single session. I solved the dilemma of reducing content or cutting portions of the experience by organizing working groups. These working groups are organized randomly to allow students to acquire lab skills, follow procedures and teach each other. Each group is responsible for a portion of the lab content, which could be a particular step in a procedure or an entire technique. Groups are responsible for reviewing protocols, learning the procedure, conducting the practical part and explaining their work and results to the class.

ACADEMIC GOALS

The goals of this collaborative group work in introductory biology laboratory are intended to improve student learning and retention, and to build up general education skills such as analytical thinking, collaborative work, and oral communication.

THE METHOD

Labs are ideal for conducting group work because their settings are more relaxing than the environments of typical lecture rooms. Students are allowed to interact with their classmates and move from one place to another. Lab benches facilitate group formation with four to six per group facing each other.

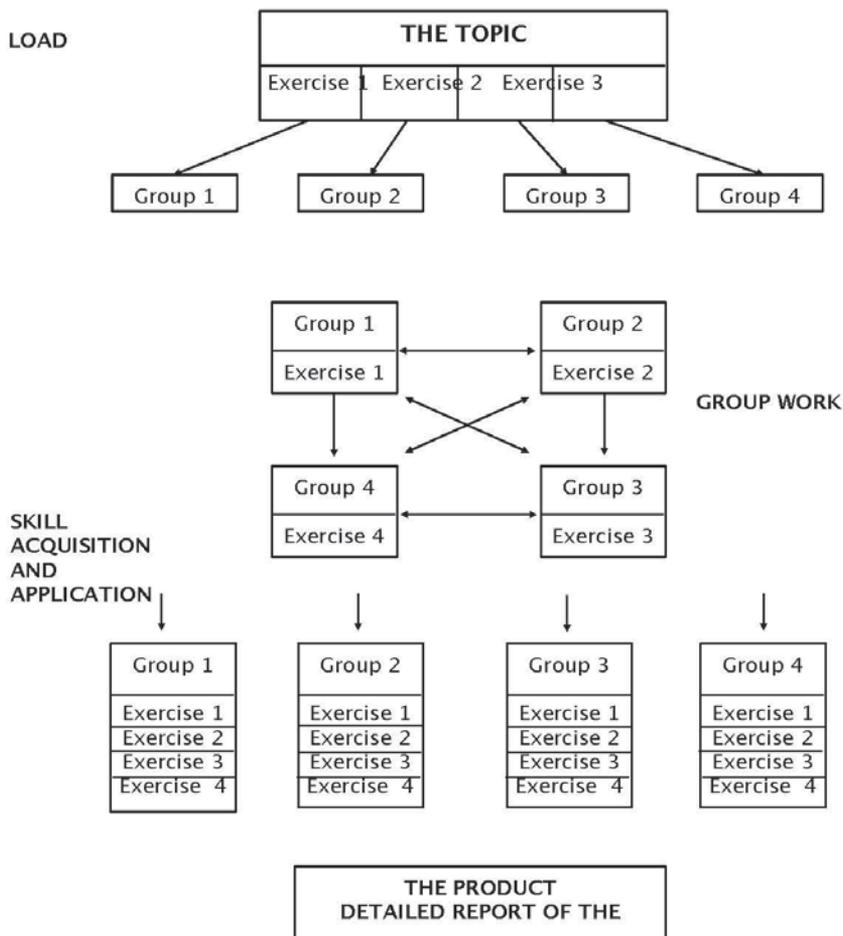


Figure 1. Work load distribution and skill acquisition in a biology laboratory.

The model described in this article is a practice conducted in the lab on organic molecules (this methodology is also applied in diffusion and osmosis, photosynthesis, and DNA extraction lab experiences). The objectives of the laboratory are to learn to perform various tests to detect the presence of proteins, simple sugars, starch, and lipids. Students are introduced to the theoretical concept during lecture

and review the same topic during the first portion of the lab. After the topic has been revisited the instructor highlights the parameters of the experience (see Figure 1).

Part 1

The class is divided into four groups of 4-5 students. Each work group is assigned one technique to learn. Simultaneously, all the groups begin by reading the protocol in their lab manuals. With the help of the instructor they conduct the experiment and learn to interpret the results. Group members interact with each other, they read and re-read the procedure, and check the list to select the correct materials and chemical solutions. They distribute tasks such as gathering lab materials, measuring and adding solutions, making observations, taking notes, collecting data, analyzing data, interpreting results, and drawing conclusions. The first part of the lab experience is completed after the instructor has visited each group to ensure that directions have been followed and to listen to the oral report of the student who has been selected as the speaker for the group. The instructor provides feedback, ask questions and makes necessary corrections. The group reviews the protocol until each member understands the technique.

Part 2

After a short interval each member of the group is ready to explain experience to their classmates. Groups break down and students visit each one of the four “stations” independently. Members of each group take turns to explain the procedure to every visitor while the rest visit other stations. At least one student is required to remain at the station while his/her partners obtain information from other groups. They all collect information, and ask questions to the presenter in order to get the correct information for their lab report. The reports must contain detailed information of all four experiments.

Part 3

After the teaching and sharing period, and assuming that each student has learned the details of each procedure, the groups are ready to test their newly acquired ability by using the four techniques to test food samples. Each group receives a sample, cookies, eggs, chips, cereal, or any other familiar product. After a brief discussion, the group agrees in a hypothesis and proceeds to run the four tests. The sample extract is separated into four test tubes, each tube is tested for one of the organic molecules under study. The instructor creates a blank chart on the board and invites the groups to record their results. Once the chart is completed students interpret results and write conclusions.

THE PRODUCT

Each student is required to write a laboratory report for the following week. The report must follow the structure of a biology lab report, including introduction, objectives, materials, procedure, results, and conclusions. Although the number of pages is not established, most reports contain between 5-8 pages. Reports contain the description of each one of the four techniques, illustrations or digital images of the experiments and tables. Some students comment on the activity or a particular procedure: “*the method used to separate each test per group was valuable because we were on the knowledgeable side when we have to explain our test*”; others realized the need to be more inquisitive: “*I would have asked more informative questions to help*

me compose a better lab report"; while others thought the experience as a whole was beneficial: "*overall the lab experiments were very engaging and interactive*"

CONCLUSIONS

This is a highly interactive experience. It allows learners to retain scientific knowledge and apply it to understand a recognizable factor. It allows the development of problem-solving skills by means of exploration beyond the common boundaries of instructor assistance. It leaves room for interaction, practice of note-taking and oral communication skills.

The interaction is lively and enthusiastic. The instructor walks among the benches to ensure everybody is participating and provides suggestions. Students act as masters of their technique while visitors are relentless questioners because they are entitled to get the correct information to prepare their reports. The happiest group is the group that performs the test on to detect reducing sugars because they get to use a hot plate and the chemical reactions are colorful; the unhappiest group is the lipid group because the differences between positive and negative reactions are strikingly different.

Overall, this group work experience has been rewarding. I apply the same strategy in other lab topics. The only downside is the limitation on materials. Ideally each student could benefit from handling his/her own material, but this limitation has not diminished the level of satisfaction of the class. The amount of lab materials used by the groups generates lots of dirty glassware and the benches need extra cleaning time, but this has never been a cause of dissatisfaction among the students.

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NOTES FROM MY JOURNAL: EMBARKING UPON A “PHILOSOPHY” OF TEACHING

Robert Cohen

Throughout the years that I have been teaching English as a Second Language (ESL), I have kept a reflective journal on all kinds of issues related to methodology, curriculum design, and teaching objectives. In the following paragraphs, I reveal some of my “internal responses” to the teaching journey.

THE ESL TEACHER’S UNIQUE CHALLENGE: BRIDGING STUDENTS’ CULTURAL DIVIDE

Language teaching, like all other teaching initiatives, is effective only when the learner’s identity is gradually transformed. Throughout an individual’s efforts to learn the phonemes, morphemes, and syntactical structures that distinguish his or her native language from a particular target language, he soon begins to appreciate and understand the cultural cues to which native speakers of the new language normally respond. Within all language learners, therefore, bridges for cross-cultural communication are continually being established as they become more and more capable of “comparing” their native language with the newly acquired one.

This intense process of “cross-cultural exchange” takes on even greater proportions in the second language classroom, where one individual joins as many as twenty-five other individuals on such a “*meta-linguistic/meta-cultural*” voyage. As the facilitator of this multilingual/multicultural event, the ESL teacher must therefore create a class atmosphere that readily permits his students to find comfort in their diversity while they strive at the same time to make English a part of their lives. Since the contours of each class’s profile are shaped by the unique qualities of its individual members, the individual plays a very important role within the dynamics of the group. Nevertheless, because it is the creative potential of the class as a collective whole that brings the teacher’s lessons to life, the teacher must first assess his students’ common needs and then address those needs when developing his teaching strategies. In fact, it is through his direct response to his students’ immediate and long-term goals that a teacher can foster his students’ mutual cooperation, a condition that naturally breeds success in the learning situation.

CURRICULUM AND METHODOLOGY

The special character of the class unit should therefore determine what methods a teacher decides to use and what curricula he will ultimately design. Rather than subscribe to a specific pedagogy, a teacher must remain flexible and should select or create the method that works best for the particular class in question. In addition, he must inject substance into his lessons by designing a curriculum that interests the students and challenges them at the same time.

To be sure, discovering what engages one's students is not as easy a task as one may imagine. However, because pleasing everyone is not always possible even in the best of all possible worlds, the fear of displeasing his students should not be so strong as to cause a teacher to eliminate lessons from his curriculum that he believes will be beneficial to his students in the long run. An experienced teacher knows how to pique his students' curiosity and spark their enthusiasm in regard to subjects that they may heretofore have considered to be "boring," and he should not lose confidence in his ultimate authority as an educator.

THAT UGLY WORD: GRAMMAR

As students become fully conversant with particular issues and develop their vocabulary considerably, they also become motivated to come to terms with the rudiments of grammar. That many students have studied English grammar for years without having learned it can probably be attributed to the fact that they were taught grammar as a "topic" unto itself rather than as the "tool" that brings the lexicon to life through speaking and writing. A grammar lesson, therefore, cannot be presented in a vacuum, but must be given within a meaningful context if it is to be an effective one. Moreover, its success will be guaranteed only if the teacher has created a listening, speaking, reading, or writing activity that motivates his students into "realizing" on their own their need to learn the particular grammar point!

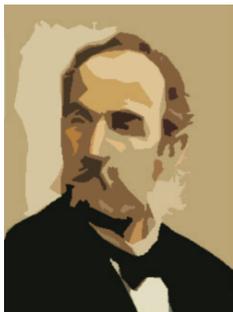
THE ESL TEACHER AS DIRECTOR OF A LIFE-CHANGING PROCESS

As important as the give-and-take is between teacher and student, the teacher is without a doubt the director of the learning process. If, at the beginning of the semester, his students have not already perceived the significance of their common bond, the teacher needs to make them aware of the fact that they are all working together toward a common goal, that of learning English and using it masterfully within the American context. Let this truth ring loud and clear: The objective of second language teaching is to have students learn to understand the new culture in order to be able to function successfully within its bounds. No matter what their reasons for coming to their new country, all second language students must learn to use their new language properly within the context of their daily activities. Consequently, the second language teacher is responsible for helping his students do battle with the various linguistic, social, and cultural inhibitors that can become obstacles to them as they create a new life for themselves. The province of the ESL teacher therefore goes beyond the confines of the classroom into the less structured and more chaotic arena of the real world outside its walls.

CULTIVATING THE SPIRIT OF AN EMPOWERED LEARNER

Through his professional expertise, the teacher sets goals for his students and tries to give them a realistic assessment of what they can be expected to achieve within a given period of time. However, it is important to remember that as partners in this language-learning effort, both the teacher and his students need to remain humble before the magnitude of this great adventure. The teacher needs to make sure his students understand that what they learn in class, although important, only prepares them for the additional and infinitely more demanding work they must do "out there" on their own in the "greater language laboratory" of the real world. At every step of the learning process, he should consider repeating the following mantra gently but firmly to his students: "If you do not conscientiously attempt to make English an integral part of your lives, by taking risks in the language and using it in social contexts, whatever you will have learned during your formal classroom hours with me will lose significance." Apparently, because no teacher, no matter what his area of expertise, can teach his students everything, a teacher's primary goal is not necessarily to impart knowledge, but to teach methodology. Without a doubt, guiding his students into becoming their own best language teachers should therefore be the ESL teacher's principal concern.

Thus, in his efforts to cultivate the empowerment of the learner, the ESL teacher becomes a resource person, an expert who not only shows his students how to continually improve their language skills, but who also provides them with links to various other resources in the community and the academic world. Under the teacher's guidance, students become aware of the initiatives they can take on their own so that one day they will be able to understand the nuances of their new culture and thereby "speak" the language effortlessly and fluently. Indeed, the learning process reaches its just culmination once students understand that it is up to them to "take the bull by the horns" if they want to go beyond the scope of the formal classroom setting and transform their identity into that of competent writers and speakers of English.



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