**Affordable Learning Georgia Textbook Transformation Grants**

**Final Report**

*Instructions:*

*A. Your final report submission must include three separate component files:*

1. *Completed report form. Please complete per inline instructions. The italicized text is provided for your assistance; please delete the italicized text before submitting your report.*
2. *Supporting data on the impact of your Textbook Transformation (survey, analyzed data collected, etc.)*
3. *A photograph of your team and/or your students for use in ALG website and materials*

*B. Go to [URL] to submit these three components of your final report. Follow the instructions on the webpage for uploading your documents. You will receive a confirmation email. Based on receipt of this report, ALG will process the final payment for your grant. ALG may follow up with additional questions or to request your participation in a publication, presentation, or other event.*

**Date: May 26, 2015**

**Grant Number: 41**

**Institution Name(s): Georgia Regents University**

**Team Members:**

**Charlotte Chatto, PT, PhD Assistant Professor, Department of Physical Therapy, College of Allied Health Sciences,**[**cchatto@gru.edu**](mailto:cchatto@gru.edu)

**Jeff Mastromonico, Director, Educational and Collaborative Technology,** [**jmastromonico@gru.edu**](mailto:jmastromonico@gru.edu)

**Project Lead: Charlotte Chatto, PT, PhD**

**Course Name(s) and Course Numbers: PTHP Integration for Practice: Neuromuscular**

**Semester Project Began: Spring Semester, 2015**

**Semester of Implementation: Spring Semester, 2015**

**Average Number of Students Per Course Section: 39**

**Number of Course Sections Affected by Implementation: At this time, one**

**Total Number of Students Affected by Implementation: 40**

**1. List of Resources Used in the Textbook Transformation**

All of our material was created or modified from original handouts from class. We considered using a resource from the web for the respiratory chapter and I went so far as to get permission from the author. I received documented permission for unlimited reproduction for the iBook. At this point, we decided that we would create our own so that it would exactly meet our needs.

At this point, the videos that are included in the iBook/eBook are only those that have been created without patients. We were planning on using clips from an old (20+ years) video with patients, who at that time, most likely signed a consent form allowing videotaping for educational purposes. In speaking to the legal office at GRU about this, I was told that it the length of time would probably be acceptable for use of the videos, with the possibility that many on the videotape might actually have died, so further consent would not be possible. With this information in mind, we decided to go a different route. Consent for educational purposes does not, unless explicitly indicated, mean consent for open-access purposes. So, I contacted an Emergency Room physician at GRU who is now posting you-tube videos of patient encounters, for educational purposes. I have a consent form that he uses, that I need to modify specifically for our purposes.

**To access our product, click on this link:** [http://www.gru.edu/art/pt](http://www.gru.edu/art/pt" \t "_blank) and this is what you will see. You can choose to download the PDF or the iBook file.

# Physical Therapy Applications for Individuals with Neurologic Dysfunction

## Chapters 1-2

[Click here to download the ibook file](http://www.gru.edu/art/pt/PTTextbookChapter%201-2.ibooks). The file is large and may take some time to download.

[Click here to download the PDF file](http://www.gru.edu/art/pt/PT%20Textbook%20Chapter%201-2%20v%202.pdf). The file is large and may take some time to download.

**Chapter 3**

[Click here to download the ibook file](http://www.gru.edu/art/pt/AffordableTextbookChapter3.ibooks). The file is large and may take some time to download.

[Click here to download the PDF file](http://www.gru.edu/art/pt/Affordable%20Textbook%20Chapter%203.pdf). The file is large and may take some time to download.

**2. Narrative**

A. Describe the key outcomes, whether positive, negative, or interesting, of your project. Include:

* Summary of your transformation experience, including challenges and accomplishments:
  + I think we produced an impressive product, although I wish we had been able to include more chapters. This became a work in progress that is still progressing. At the beginning of the project, I had a table of contents that seemed to make sense that we would create…then I realized, with Jeff’s suggestion, that there would be a big challenge to be able to make it work for this year in that sequence. So, instead, we changed our plan to create as we went, creating and releasing the chapters that were particularly relevant—especially when video clips of techniques would be helpful for the students.
  + We learned how to work the GoPro camera for video capture. and it will continue to be used in our textbook development. Although we had some older videos that we transformed into a digital format, the quality was just not good enough. The time
* Transformative impacts on your instruction:
  + I was so excited to be able to tell them they could use the videos for review. I felt like they would be able to learn the techniques better and ultimately, their patients would benefit from their skills.
  + I left out some activities in the class that I normally do…and there were not detrimental effects. This leads me to believe that they may not be that effective, anyway. However, creating the iBook stimulated me to figure out some ways that would be more effective in engaging the learners more.
* Transformative impacts on your students and their performance
  + See below for comparison and comments for performance 2015 and 2014
    - **Students requiring Mastery Support Process (MSP\*) in PTHP: 8351 Integration for Practice: Neuromuscular**, **Spring 2015 (with AFLG Neurological ibook/ebook)**
      * *\* MSP is a process that occurs for students following an unsuccessful attempt at a graded activity. In our curriculum, this is defined as Fail, if the activity is Pass/Fail and a score of less than 80, in written and practical examinations. This year, no one needed MSP for the written exams (I, II, and II). Although it is difficult to know for sure, it is notable that no one needed MSP for this skills check-off, all of which had either text and or voice-over videos in the chapters we released of the iBook/eBook. Also, of note, is that proportionally, more MSP was necessary for the Motor Learning Check-off in 2014 and 2015, as compared to other skills check-off. The textbook for Motor Learning is very expensive and was not required this year. Although the numbers are about the same for who needed MSP, NOT requiring it did not seem to make any difference. Also, this was an area that was requested in the student survey to be included in a digital text.*

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| STUDENT | Movement Analysis  Check-off | Stroke and PND Check-off | Motor Learning Check-0ff | SCI MMT, PNF Transfer  Check-off | Practical I | Practical II | Practical II  (as patient) | Practical III |  |
| 2015A |  |  | x |  | X |  |  |  |  |
| 2015B |  |  |  |  | X X |  |  |  |  |
| 2015C |  |  |  |  | X | X | X |  |  |
| 2015D |  |  | X |  | X |  |  |  |  |
| 2015E |  | X |  |  |  | X |  |  |  |
| 2015F |  |  |  |  |  | X |  |  |  |
| 2015G |  | X |  |  |  | X | X |  |  |
| 2015H |  |  |  |  |  |  |  | X |  |
| 2015I |  |  |  |  |  |  |  | X |  |
| 2015J | X |  |  |  |  |  |  |  |  |
| 2015K |  | X |  |  |  |  |  |  |  |
| 2015 L |  |  | X |  |  |  |  |  |  |
| 2015M |  |  | X |  |  |  |  |  |  |
| 2015N |  |  | X |  |  |  |  |  |  |
| 2015O |  |  | X |  |  |  |  |  |  |
| 2015P |  |  | X |  |  |  |  |  |  |
| Total # of MSP sessions | 1 | 3 | 7 | 0 | 4 | 4 | 2 | 2 | Total 23 |

**Students requiring Mastery Support Process (MSP\*) in PTHP: 8351 Integration for Practice: Neuromuscular**, **Spring 2014 (*without* AFLG Neurological ibook/ebook resources)**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| STUDENT | Exam I | Exam II | Exam III | Movement Analysis  Check-off | Stroke and PND Check-off | Motor Learning Check-0ff | SCI MMT, PNF and Exercise Check-off | Practical I | Practical II |  |
| 2014A | X |  | X |  |  |  |  |  |  |  |
| 2014B |  | X |  | X |  | X |  | X |  |  |
| 2014B |  | X |  |  |  | X |  |  | X |  |
| 2014B |  |  |  |  | X | X |  |  |  |  |
| 2014B |  |  |  | X |  | X | X | X |  |  |
| 2014B |  |  |  |  |  |  |  | X |  |  |
| 2014B |  |  |  |  |  |  |  | X |  |  |
| 2014B |  |  |  |  |  |  | X | X |  |  |
| 2014B |  |  |  |  |  |  |  | X |  |  |
| 2014B |  |  |  |  |  |  |  | X |  |  |
| 2014B |  |  |  |  |  | X |  |  |  |  |
| 2014B |  |  |  | X |  |  |  |  |  |  |
| 2014B |  |  |  |  |  | X |  |  |  |  |
| 2014B |  |  |  | X |  |  |  |  |  |  |
| 2014B |  |  |  |  |  |  | X |  |  |  |
| Total # MSP sessions | 1 | 2 | 1 | 4 | 1 | 6 | 3 | 7 | 1 | 25 |

B. Describe lessons learned, including any things you would do differently next time.

* After about three or four attempts, I figured out a good way to present the material to Jeff, in order to have ease of organizing the material into the iBook. This will be a lesson that I learned, that I will pass on to other faculty in my Department who now want to develop their own.
* I learned that we need to practice the skills we are videoing BEFORE we video…we did one set of videos that I felt were not as “perfect” as I wanted them to be and will redo and post new ones next year.
* There were way too many download problems, which was very frustrating for the students. Although I wanted to create only the iBook version, with thoughts that students would have or be able to access an iPad, I soon realized that this would be something to hope for the future. I am also thinking ahead to the possibility of providing iPads with resources full PT curriculum for a program I am helping to develop in Haiti. Although some of my current students had iPads, they had trouble downloading onto them. Many of my students do not have Macs or iPads, so in order for them to have access, Jeff and I had to figure out how to give them access, so we found out about how Adobe PDFs allow embedded videos.
* I think that before I release the next version, we must be more clear about the requirements of the system to be able to view it…however, Jeff and I might need to do some more experimenting to determine the instructions we would post for the students.

**3. Quotes**

**In response to the question: “Yes or No…I would like to have more free digital textbooks in the Physical Therapy Curriculum. And if yes, describe what classes in which these resources would be most effective.”**

“Yes. I feel like these would be very helpful in our core classes such as foundations, ortho and all the med con courses.”

“It would be helpful for material that is covered but a book isn't utilized for every chapter. For example, The Spinal Cord book for Somers I would not want electronically because it is nice to actually have the book, but for instances such as the motor learning book it would have been nice to have a free digital textbook rather than having to purchase the book.”

“Ortho for special tests, Neuro for PDFs - the videos were so so helpful, so being able to go back and view those was great!”

**4. Quantitative and Qualitative Measures**

* Please see the attached document titled: “Students requiring Mastery Support Process 2014 and 2015 for ALG grant comparison for final report” and the Excel Spreadsheet titled: “ALG final report Student Survey Results” with Survey Data for the following questions, including all comments. The following table represents the most important findings on student’s perception of effectiveness of the product:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Answer Options** | **Not effective** | **Minimally effective** | **Moderately effective** | **Very effective** | **Extremely effective** | **I did not download this chapter** | **Rating Average** | **Response Count** |
| Chapter I Section I: Strength, Reflexes, and Flexibility | 0 | 0 | 8 | 8 | 3 | 5 | 3.74 | 24 |
| Chapter 1 Section 2: Functional Mobility (Transfers, Mat/Bed mobility, Gait) | 0 | 0 | 7 | 8 | 4 | 5 | 3.84 | 24 |
| Chapter 2: Respiratory Assessment and Interventions (Assisted Breathing and Coughing Techniques) | 0 | 1 | 10 | 9 | 1 | 3 | 3.48 | 24 |
| Chapter 3: Proprioceptive Neuromuscular Facilitation | 0 | 0 | 3 | 12 | 8 | 1 | 4.22 | 24 |

**5. Sustainability Plan**

* *Describe how your project team or department will offer the materials in the course(s) in the future, including the maintenance and updating of course materials.* 
  + *By next Spring, I plan to have at least two more chapters completed, with high quality videos. I also plan to determine all the details of downloading.*
  + *Updating and maintenance will occur each year. I also plan to release some of the chapters earlier in the curriculum than the course in which they were released this time. I expect that this will only help with carryover of the concepts.*

**6. Future Plans**

* *Describe any impacts or influences this project has had on your thinking about or selection of learning materials in this and other courses that you will teach in the future.*
  + *I reflected heavily on the huge impact providing quality resources for physical therapy students may have on patients. Our students will have access to them now and in their practice after graduation. I envision our open access chapter on transfers to be used to train patients and caregivers, too, as well as a good review for PTs.*
* *Describe any planned or actual papers, presentations, publications, or other professional activities that you expect to produce that reflect your work on this project.*
  + *I have been encouraged by the Chair of my Department to present a workshop at one of our National Physical Therapy conferences on the creation of these materials. I will plan on doing this. I think the process, especially those lessons learned may be worthy of a publication in an educational journal, but the textbook itself will need to be peer-reviewed.*

**7. Description of Photograph**

* *Jeff Mastromonico, Director of* Educational & Collaborative Technology Department *and Dr. Charlotte Chatto, Assistant Professor of Physical Therapy are on different campuses and were unable to meet for a group photo.*

