**Title and Focus of Activity**: Integrating and Interpreting Research and Didactic Content Using Case Study

*Intervention*

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**Course Information:**

Neuromuscular Physical Therapy; 5 credits; 4th Term; Fall, Year II; follows courses in pathophysiology, neuroanatomy, and differential diagnosis. This course introduces both theory and practical applications of motor control and motor learning to neuromuscular movement disorders.

**Learning Experience Description:**

Context: This activity utilizes case examinations from Shumway-Cook and Woollacott’s1 *Motor Control: Translating Research into Clinical Practice* text. At the end of each of the chapters pertaining to “Abnormal” in each of the major Parts II-IV (Postural Control; Mobility Functions; Reach, Grasp, and Manipulation) of this text, the authors have used case studies of several typical neurological diagnoses to explore case specifics related to the Part’s area of study. An instructor could, alternatively, choose to use this assignment for a single Part as suited to the course’s objectives. An instructor may also opt to select case studies from other texts, keeping in mind the deficits of interest to the study.

The activity can be used as a leaping point for didactic discussions about *clinical management* of postural control, mobility, or reach | grasp | manipulation.

Purpose: The purpose of the activity is to guide students in evaluating evidence, applying evidence, interpreting graphic representations or data, utilizing text concepts, and integrating sources of information into case study for patients with specific diagnoses.

In advance of the active learning session:

1. Students are asked to read the cerebral palsy, stroke, and Parkinson’s disease case examples for the Part under study.
2. Each student also reads an article specifically assigned to him/her (see sample articles below).
3. Each student responds, independently, to a number of instructor prepared questions (see sample questions below).
4. Students meet with others who have read the same article to share independent responses (i.e., the “alpha” group assignment from the “Sample Student Group Assignment Table” below; 5 students from a sample cohort of 30 students). Students are *strongly encouraged* to consult with the instructor if there are questions about the accuracy of their interpretations. Students are held accountable for the accurate dissemination of information to peers.
5. The group creates a synthesized version of the group’s responses. This group product becomes the instructional tool that each representative of the article will share with a mixed-article group (referred to as the “numerical” group) during the active learning session.
6. The group submits their shared product to the instructor. The submission is graded using the “Single Article Teaching Tool Rubric” matrix (see below). Independently generated responses prepared to work on the group teaching tool are not graded. Any instructor identified errors in the tool are corrected prior to dissemination with the larger group.

During the in-class active learning session:

1. A representative from each of the “alpha” article groups is assigned to a mixed-article group (i.e., the “numerical” group assignment from the “Sample Student Group Assignment Table”; in a sample cohort of 30 students, with 2 articles per case diagnosis [6 articles total], 5 groups of 6 will be formed; see “Sample Student Group Assignment Table,” below, for clarification).
2. Teaching tools developed within each same-article “alpha” group are distributed among mixed-article “numerical” group members, and each member of the “numerical” group uses this opportunity to educate others. Allotting 15-20 minutes/group [1.5 – 2.0 hours; approximately 15-20 minutes for each alpha group to share its teaching tool within the numerical group] should be sufficient, depending upon the questions developed by the instructor.
3. Following the teaching and sharing session, group members complete a peer review survey to offer constructive feedback related peer effectiveness in presenting article specifics in an easily understood, well organized, clear, and concise manner. Peer reviews can be averaged and used as weighted contributors to the final grade, depending upon the instructor’s objectives. The instructor may also prompt reflection from peer-teachers using a written assignment or through a group-debriefing meeting.

If an instructor chooses this activity for all three Parts of the text, groups are arranged to ensure each student works on a different case diagnosis for each of the three Parts under study.

**Sample Student Group Assignment Table**

|  |
| --- |
| **Articles 1-6 due \*\*DATE\*\*; Articles 7-12 due \*\*DATE\*\*; Articles 13-18 due \*\*DATE\*\***Case Studies: Postural Control, SC/W pp 268-270; Mobility, SC/W pp 408-412; Reach, Grasp, and Manipulation, SC/W pp 549-550 |
| **Mixed Article Group** (“Numerical” Group) | **Same Articlea Group** (“Alpha” Group) |
| **A: Articles****3, 11, 13** | **B: Articles****4, 12, 14** | **C: Articles****5, 7, 15** | **D: Articles****6, 8, 16** | **E: Articles****1, 9, 17** | **F: Articles****2, 10, 18** |
| **1** | Amanda | Francis | Katherine | Peter | Ursilla | Zeke |
| **2** | Bill | George | Liam | Quinn | Victoria | Abraham |
| **3** | Cory | Harry | Mary | Rachel | William | Bobby |
| **4** | David | Inid | Nancy | Sarah | Xaviera | Carrie |
| **5** | Edwin | Julia | Orville | Tom | Yolanda | Daniel |

aSee Readings/Other Preparatory materials for sample articles and help with assigned article numbering system

Sample Assignment Instructions

You have been assigned an article for each of three content units (postural control, mobility functions, and reach, grasp, and manipulation [RGM]). At the end of each chapter addressing “abnormal” postural control, mobility, or RGM, case information is presented about Jean (CVA), Mike (PD), and Thomas (CP). You will address each of these different pathologies (CVA, PD, and CP) in one of three assignments requiring you to link an assigned journal article to your case presentation. In advance of our scheduled class meeting, you will independently respond to instructor-generated questions about your assigned article. You will then meet with others who have responded to the same questions about the same article and pathology. Prior to the scheduled class meeting, you will synthesize your group’s responses to generate a single, same-article teaching tool (guided by instructor questions) that will be submitted to your instructor for grading and shared with your classmates in small-group discussions. In class, you will join a new group of students who have read different articles. This new group of six will provide briefings from six different article instructional tools (2 people in each group will have been assigned the same diagnosis but different articles). You will use your instructional tool as a guide to sharing your information within this mixed-article group, teaching others what you have learned while reading the article and applying information to a case. As a follow-up, members of the mixed-article group provide a peer evaluation to offer constructive feedback about the success of the instructional tool’s delivery to others.

Sample Instructor-Directed Questions for the “Single-Article Teaching Tool” Assignment:

1. Postural Control (Unit II) instructor-directed questions:

a. Case Questions; Using the ICF Framework

i. What are your case study patient’s impairments of body structure and function? Activity limitations? Participation restrictions?

2. Article Questions

a. What is the bibliographic article citation?

b. Study summary

i. What is the study purpose? Who are the subjects? What are the general procedures (i.e., how did they do the study, statistical tests used)?

ii. What tests/outcome measures were utilized for this article? For what population is/are these tests appropriate (been validated/ found reliable)?

iii. What intervention does the article study? What is the underlying reasoning for using this intervention?

iv. Describe the study participants.

v. What are the results? Include a brief summary of the results including the statistical values (i.e., ICC = .78). This can be done in a table format, but you should create the table yourself vs. copying/ pasting from the article. Remember this section should be the results, not the descriptive data of the subjects in the study.

vi. What is the grade of evidence? Include your grade of the evidence using a scale like Physiotherapy Evidence Database (PEDro; [http://www.pedro.org.au](http://www.pedro.org.au/)) or Trombly & Ma.2

vii. What is the clinical bottom line? Describe your critical evaluation of the evidence (i.e., was it high/low on the grading scale) and how the results of this study will impact your future practice as a physical therapist.

viii. What are the study limitations? Do you have any reservations about the methods, data, or outcomes of this study?

3. Interpretation of data depictions

a. If you read the article by Ledebt et al:

Snip Figure 3 (page 465) from your electronic article or cut and paste from this

document and replicate into your individual instructional tool submission. In typed text, explain significant differences between the Training Group and the Control Group. You are strongly encouraged to write or otherwise indicate on the graphs to illustrate these points. Resize the Figure as needed.

b. If you read the article by Christovão et al:

Replicate Table 2 data in your Instructional Tool. Use comments or other means to point out where, in the table, the following results are found:

INTRAGROUP ANALYSIS

1. The EG demonstrated significant reductions in the time required to execute the TUGT
2. The EG demonstrated significant reductions in body sway in the anteroposterior direction with eyes open.
3. The EG demonstrated significant reductions in body sway in the mediolateral direction with eyes open.

c. If you read the article by Lee et al:

Replicate Table 2 data in your Instructional Tool. Use comments or other means to point out where, in the table, the following results are found:

1. Sway velocity of the COP and moment velocity under eyes open were significantly decreased in the light touch compared to no light touch.
2. Sway velocity of the COP and moment velocity under eyes closed were significantly decreased in the light touch compared to no light touch.
3. Rates of decrease of sway velocity and moment velocity under eyes closed condition were higher compared with those under eyes open condition.

d. If you read the article by Yu & Park:

Snip Figure 2 (page 365) from your electronic article or cut and paste from this document and replicate into your individual instructional tool submission. Use the results and discussions from this article to point to and interpret significant findings depicted in the figure. You are strongly encouraged to write or otherwise indicate on the graphs to illustrate these points. Resize the Figure as needed.

e. If you read the article by Wong-Yu & Mak:

Replicate Table 2 data in your Instructional Tool. Specifically identify where the significant differences described under the manuscript’s “Short- and long-term effect in primary and secondary outcomes” are found in the table.

f. If you read the article by Malling and Jensen:

Snip Figure 3 from your electronic article or cut and paste from this document and replicate into your individual instructional tool submission. In typed text, explain significant differences described in the results section and depicted in this figure. You are strongly encouraged to write or otherwise indicate on the graphs to illustrate these points. Resize the Figure as needed.

4. Integrating Case and Article

a. Based upon the information you’ve been given about your case study patient, is your patient a “match” for the population used in this study? Why or why not? What considerations are important when considering whether you will use this intervention with your patient?

b. Design an intervention for your patient utilizing the findings of this study; describe how your intervention utilizes the findings of your assigned study.

5. Integrating Article and Chapter Concepts

Apply the findings in your assigned article to a postural control concept introduced in this unit.

REFERENCES

Shumway-Cook A, Woollacott MH. *Motor Control: Translating Research into Clinical Practice.* 4th ed. Philadelphia PA: Lippincott Williams & Wilkins; 2012.

Trombly CA, Ma H. A synthesis of the effects of occupational therapy for persons with stroke, Part I: Restoration of roles, tasks, and activities. *AJOT*. 2002;56:250-259.

Time for student to complete the activity:

1. preparation for activity outside of/before class:
	1. All students must read each of the cerebral palsy, stroke, and Parkinson’s disease case examples at the end of each of the “Abnormal” chapters within Parts II, III, and IV (Postural Control; Mobility Functions; Reach, Grasp, and Manipulation) of Shumway-Cook and Woollacott’s *Motor Control: Translating Research into Clinical Practice* text.
	2. Each student reads a single article assigned by the instructor. Each student independently responds to instructor-generated questions in advance of scheduled class time.
	3. After independently generating responses to article-specific questions, each student meets with a small group of others who have also been assigned the same article and same instructor-generated questions. Together, the small group shares their independent responses to develop a synthesized response to instructor’s questions. The document is drawn up as a single, synthesized instructional tool to be shared with others in class.
2. class time completion of the activity:
	1. A representative from each of the article groups is assigned to a mixed-article group. Instructional tools developed within each “alpha” [same-article] group are distributed among “numerical” [mixed-article] group members, and each member of the group uses this opportunity to educate others about their assigned article. Allotting 15-20 minutes/group [1.5 – 2.0 hours] should be sufficient, depending upon the questions developed by the instructor.

Readings/other preparatory materials:

1. Shumway-Cook A, Woollacott MH. *Motor Control: Translating Research into Clinical Practice.* 4th ed. Philadelphia PA: Lippincott Williams & Wilkins; 2012.

Specific Text References:

*“A Case study Approach to Understanding Postural Dyscontrol,” pp. 268-270.*

*“A Case Study Approach to Understanding Mobility Disorders,” pp. 408-412.*

*“A Case Study Approach to Understanding Upper-Extremity Disorders,” pp. 549-550.*

*If this text has not been adopted, instructors may select case studies from other texts that emphasize deficits of postural control, mobility, or upper extremity use. De-identified clinical cases selected for their postural control, mobility, and upper extremity issues may also be used.*

1. Selected articles specific to intervention for diagnoses under study *(update as needed to remain contemporary):*

Posture and Balance (same-article instructional tool due \*\*Date\*\*; mixed-article synthesis due \*\*Date\*\*)

|  |  |  |
| --- | --- | --- |
| **Cerebral Palsy** | **1** | Ledebt A, Becher JG, Kapper J, Rozendaal RM, Bakker R, Leenders JC, Savelsbergh GJP. Balance training with visual feedback in children with hemiplegic cerebral palsy: effect on stance and gait. *Motor Control.* 2005:9(4):459-468. |
| **2** | Christovão TCL, Pasini H, Grecco, LAC, Ferreira LAB, Duarte NAC, Oliveira CS. Effect of postural insoles on static and functional balance in children with cerebral palsy: a randomized controlled study. *Braz J Phys Ther.* 2015:19(1), 44-51. Epub February 03, 2015. <https://dx.doi.org/10.1590/bjpt-rbf.2014.0072> |
| **Stroke** | **3** | Lee SH, Lee DG, Lee YB, Jee YJ, Lee GC, Park DS. Influence of light touch using the fingertips on postural stability of poststroke patients. J Phys Ther Sci. 2015:27:469-472. |
| **4** | Yu SH, Park SD. The effects of core stability strength exercise on muscle activity and trunk impairment scale in stroke patients. *J Exercise Rehab*. 2013:9(3):362-367. |
| **Parkinson’s Disease** | **5** | Wong-Yu ISK, Mak MKY. Task and context-specific balance training programme enhances dynamic balance and functional performance in Parkinsonian non-fallers: a randomized controlled trial with six-month follow-up. Arch Phys Med Rehab. doi: 10.1016/j.apmr.2015.08.409 [Epub ahead of print] |
| **6** | Malling ASB, Jensen BR. Motor intensive anti-gravity training improves performance in dynamic balance related tasks in persons with Parkinson’s disease. *Gait Posture* (2015), http://dx.doi.org/10.1016/j.gaitpost.2015.09.013. |

Mobility Functions (same-article instructional tool due \*\*Date\*\*; mixed-article synthesis due \*\*Date\*\*)

|  |  |  |
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| **Cerebral Palsy** | **7** | Lee M, Ko Y, Shin MM, Lee W. The effects of progressive functional training on lower limb muscle architecture and motor function in children with spastic cerebral palsy. *J Phys Ther Sci*. 2015:27(5):1581-4. doi 10/1589/jpts.27.1581. Epub 2015 May 26. |
| **8** | Taylor NF, Dodd KJ, Baker RJ, Willoughby K, Thomason P, Kerr Graham H. Progressive resistance training and mobility-related function in young people with cerebral palsy: a randomized controlled trial. *Dev Med Child Neurol*. 2013:55(9):806-812. doi: 10.1111/dmcn.12190 |
| **Stroke** | **9** | Hollands KL, Pelton TA, Wimperis A, Whitham D, Tan W, Jowett S, Sackley CM, et al. Feasibility and preliminary efficacy of visual cue training to improve adaptability of walking after stroke: multi-centre, single-blind randomized control pilot trial. *PLoS One*. 2015:10(10):e0139261. doi: 10.137/journal.pone.0139261. |
| **10** | Won SH, Kim JC, Oh DW. Effects of a novel walking training program with postural correction and visual feedback on walking function in patients with post-stroke hemiparesis. J Phys Ther Sci. 2015:27:2581-2583. |
| **Parkinson’s Disease** | **11** | Kim MS, Chang WH, Cho JW, Youn J, Kim YK, Kim SE, Kim YH. Efficacy of cumulative high-frequency rTMS on freezing of gait in Parkinson’s disease. *Restor Neurol & Neuro.* 2015:33:521-530. doi: 10.3233/RNN-140489. |
| **12** | Schenkman M, Hall DA, Barón AE, Schwartz RS, Mettler P, Kohrt WM. Exercise for People in Early- or Mid-Stage Parkinson Disease: A 16-Month Randomized Controlled Trial. *Phys Ther*. 2012:92(11):1395-1410. doi:10.2522/ptj.20110472. |

Reach, Grasp, and Manipulation (same-article instructional tool due \*\*Date\*\*; mixed-article synthesis due \*\*Date\*\*)

|  |  |  |
| --- | --- | --- |
| **Cerebral Palsy** | **13** | Lampe R, Thienel A, Mitternacht J, Blumenstein T, Turova V, Alves-Pinto A. Piano training in youths with hand motor impairments after damage to the developing brain. *Neuropsychiatric Disease and Treatment*. 2015;11:1929-1938. doi:10.2147/NDT.S84090. |
| **14** | Xu K, Mai J, Yan X, Chen Y. Muscle recruitment and coordination following constraint-induced movement therapy with electrical stimulation on children with hemiplegic cerebral palsy: a randomized controlled trial. *PLoS One*. 2015:10(10):e0138608. doi: 10.1371/journal.pone.0138608 |
| **Stroke** | **15** | Woodbury ML, Howland DR, McGuirk RE, Davis SD, Senesac CR, Kautz S, Richards LG. Effects of trunk restraint combined with intensive task practice on poststroke upper extremity reach and function: a pilot study. *Neurorehabil neural repair*. 2009:23(1):78-91. |
| **16** | Kim SS, Lee BH. Motor imagery training improves upper extremity performance in stroke patients. *J Phys Ther Sci.* 2015:27:2289-2291. |
| **Parkinson’s Disease** | **17** | [Mateos-Toset S](http://www.ncbi.nlm.nih.gov/pubmed/?term=Mateos-Toset%20S%5BAuthor%5D&cauthor=true&cauthor_uid=26079867), [Cabrera-Martos I](http://www.ncbi.nlm.nih.gov/pubmed/?term=Cabrera-Martos%20I%5BAuthor%5D&cauthor=true&cauthor_uid=26079867), [Torres-Sánchez I](http://www.ncbi.nlm.nih.gov/pubmed/?term=Torres-S%C3%A1nchez%20I%5BAuthor%5D&cauthor=true&cauthor_uid=26079867), [Ortiz-Rubio A](http://www.ncbi.nlm.nih.gov/pubmed/?term=Ortiz-Rubio%20A%5BAuthor%5D&cauthor=true&cauthor_uid=26079867), [González-Jiménez E](http://www.ncbi.nlm.nih.gov/pubmed/?term=Gonz%C3%A1lez-Jim%C3%A9nez%20E%5BAuthor%5D&cauthor=true&cauthor_uid=26079867), [Valenza MC](http://www.ncbi.nlm.nih.gov/pubmed/?term=Valenza%20MC%5BAuthor%5D&cauthor=true&cauthor_uid=26079867). Effects of a single hand-exercise session on manual dexterity and strength in persons with Parkinson’s disease: a randomized controlled trial. *PM R*. 2015 Jun 14. Pii:S1934-1482(15)00290-7. Doi: 10.1016/j.pmrj.2015.06004. [Epub ahead of print] |
| **18** | Rand MK, Van Gemmert AWA. Coordination deficits during trunk-assisted reach-to-grasp movements in Parkinson’s disease. *Exp Brain Res*. 2014:232:61-74. doi: 10.1007/s00221-013-3720-0 |

Learning Objectives:

1. Critically appraise an intervention-based article.
2. Integrate information from several sources (research article, text content, case study) to lend to an understanding of patient care management.
3. Effectively communicate interpretations of graphic representations of data or data tables.
4. Develop a teaching aide to effectively instruct fellow student learners.
5. Participate in a discussion with others about interventions and their application to patients with neurological diagnoses.

Methods of evaluation of student learning:

The rubrics below can easily be established with formulas in Excel.

**SAMPLE PEER FEEDBACK SURVEY**

*(for use with “numeric” group)*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 5Strongly Agree | 4Agree | 3Neutral | 2Disagree | 1Strongly Disagree |
| The peer educator generated a comprehensive list of case patient impairments of body structure and function, activity limitations, and participation restrictions (given the information provided in the case study). | 🗆 | 🗆 | 🗆 | 🗆 | 🗆 |
| The peer educator summarized the main points of the study in way that was clearly understandable to me. | 🗆 | 🗆 | 🗆 | 🗆 | 🗆 |
| The peer educator shared with me the data depictions specifically identified by my instructor for interpretation and provided me with an interpretation of the depiction that I am able to easily understand. | 🗆 | 🗆 | 🗆 | 🗆 | 🗆 |
| The peer educator shared relevant information that linked the utility and feasibility of the article intervention for the selected case patient.  | 🗆 | 🗆 | 🗆 | 🗆 | 🗆 |
| The intervention designed for the case patient based upon the article was sensible, clinically feasible, relevant to patient functional gains, and individualized (given the information provided in the case study). | 🗆 | 🗆 | 🗆 | 🗆 | 🗆 |
| The peer educator effectively linked course content to the article’s purpose and findings. | 🗆 | 🗆 | 🗆 | 🗆 | 🗆 |
| TOTAL POINTS | /30 |

**INSTRUCTIONAL TOOL RUBRIC**

*(for use with “alpha” group)*

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Excellent Work****(90 < score < 100)** | **Quality Work****(80 < score < 90)** | **Baseline Work****(70 < score < 80)** | **Unacceptable Work****(score < 70)** | *Percent Score* | *% x .01* | *Weight* | *Subscore* |
| *Case Study Questions; Using the ICF Framework* | Student group response shows an excellent understanding of impairments, activity limitations, and participation restrictions based upon the case information provided. | Student group response shows a good understanding of impairments, activity limitations, and participation restrictions based upon the case information provided. | Student group response shows a fair understanding of impairments, activity limitations, and participation restrictions based upon the case information provided. | Student group response shows a poor understanding of impairments, activity limitations, and participation restrictions based upon the case information provided. |  |  | x 10 |  |
| *Article Questions: Citation* | Citations conform completely to AMA formatting requirements. | A single AMA citation error is identified. | Two or three AMA citation errors are identified. | More than three AMA citation errors are identified. |  |  | x 5 |  |
| *Article Questions: Study Summary*  | The student group thoroughly but concisely represents the study purpose, subjects, methods, and results with full accuracy. | The student group represents the study purpose, subjects, methods, and results with accuracy but may benefit from greater thoroughness. | The student group represents the study purpose, subjects, methods, and results with some degree of inaccuracy. | The student group has misrepresented the study purpose, subjects, methods, or results. |  |  | x 10 |  |
| *Article Questions:**Interpretation of Data Depictions* | The student group interpretation is ACCURATE, easily read and understood and acts as an excellent teaching tool to share with peers. | The student group interpretation is ACCUTATE, easily read and understood but would benefit from greater organization or visual presentation to improve its use as a learning aid for peers. | The student group interpretation not particularly clear or easily understandable, but the information is ACCURATE and peers can learn from it. | The student group interpretation is poorly displayed, difficult to understand as it is depicted, or serves as a poor learning aid for peers. Presented information contains inaccuracies. |  |  | x 10 |  |
| *Integration Case and Article* | Links between article and case are strong and well contemplated. Analysis reflects solid effort to understand use and implication of intervention to case presentation. | Links between article and case are evident and there is clear effort to understand the use and implication of the intervention to the case presentation. | Links between article and case are not particularly strong or implications of the intervention to the selected case are not evident. | Student group has overlooked links between article and case or has not demonstrated an understanding of the implications of the intervention to the case. |  |  | x 10 |  |
| *Integrating Article and Chapter Concepts* | Student group has paid attention to important content concepts, has tied them in to the analysis and case application. Strong reflection and obvious effort to understand article through these concepts. | Student group has used some unit concepts to analyze the article and apply to the case, but some key concepts may have been overlooked. | Little attention is given to unit concepts when discussing the article or applying to the case or limited reflection and effort have been devoted to understanding relevance of unit content to the project. | Student group does not link unit concepts to the article or the case presentation.  |  |  | x 10 |  |

*… continued.*

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Excellent Work****(90 < score < 100)** | **Quality Work****(80 < score < 90)** | **Baseline Work****(70 < score < 80)** | **Unacceptable Work****(score < 70)** | *Percent Score* | *% x .01* | *Weight* | *Subscore* |
| **Overall Presentation** |
| *Overall Organization* | Content is presented in an easily understood format. Format design shows forethought and an attention to readability/ understandability through a well-planned organizational structure. | Content is presented in an easily understood format. Format design is generally consistent, and it is evident the students have considered the audience when organizing the work. | Content is not always consistently organized; however, information is presented with some amount of organizational planning. | Content is presented without a specific or consistent organizational plan. |  |  | x 5 |  |
| *Overall Organization* | Content is presented in an easily understood format. Format design shows forethought and an attention to readability/ understandability through a well-planned organizational structure. | Content is presented in an easily understood format. Format design is generally consistent, and it is evident the students have considered the audience when organizing the work. | Content is not always consistently organized; however, information is presented with some amount of organizational planning. | Content is presented without a specific or consistent organizational plan. |  |  | x 5 |  |
| *Editing* | Work shows attention to details, including layout, language, spelling, and grammar. | Work shows limited or little attention to details, including layout, language, spelling, and grammar. Numerous errors found in finished work. |  |  | x 5 |  |
| **TOTAL SUBSCORE POINTS** | **/70** |