Review of Literature on the efficacy of handout use in undergraduate nursing classes

Amy Chartier BA RN-BC

Dr. Cheryl Williams PhD RN CNE NP-C

Objectives

- Discuss purpose for this review of literature

- Discuss select studies that were done on classroom handouts

- Cornell note-taking system

- Discuss what was found on the retention of information during class and its relevance to handouts

- Review the methods used

- Recommendations that came from the research

Purpose of review of literature

- To find concrete evidence that handouts are necessary for nursing classes

- Within that evidence, is there a positive correlation between handouts and grades?

- If handouts are necessary, how should they be designed?

- What recommendations have come of the research done?

Moellenberg and Aldridge (2010)

- Conducted a study on the format of handouts

- Interactive outlines, fill in the blanks

- Material discussed in class would help fill in these gaps

- Showed interactive class style, showed a format that reaches any kind of learner

Example of Incomplete Outline from Moellenberg & Aldridge (2010)

Table 3. Example of Interactive Outline on Asthma

Asthma

Asthma is the most common _____ _____ of childhood.

Etiology

Asthma is caused by multiple factors, including environmental exposures, viral illnesses, allergens, and a genetic predisposition.

Triggers

Risk Factors

Clinical Manifestations

Peak Flow (peak expiratory flow rate [PEFR])

- Measures the maximum flow of air that the child can push forcefully out of the lungs when cooperating. Medications can be based on PEFR readings, and the effectiveness of treatment can be confirmed by improved PEFR numbers.

  Green/mild: (70%-90% of personal best) These values signal all clear. The asthma is under reasonably good control. No symptoms are present, and the routine treatment plan for maintaining control can be followed.

  Yellow/moderate: (50%-70% of personal best) These values signal caution. The asthma is not well controlled. An acute exacerbation may be present. Maintenance therapy may need to be increased. Call doctor if the child stays in the yellow zone.

  Red/severe: (<50% of personal best) These values signal a medical alert. Severe airway narrowing may be occurring. A short-acting bronchodilator should be administered. Notify doctor if the PERF does not return immediately and stay in yellow or green zones.

- KEY: Why do you think home monitoring is so important in children with asthma?

Treatment

  Allergen control

  Following parental teaching, the nurse is evaluating the parents' understanding of environmental control for their children's asthma management. Teaching has been understood by the parents if they state:

    (a) "We will replace the carpet in our child's bedroom with tile."
    (b) "We're glad the dog can continue to sleep in our child's room."
    (c) "We'll be sure to use the fireplace often to keep the house warm in the winter."
    (d) "We'll keep the plants in our child's room dusted."

  Drug therapy

  Quick relief

    (1) Bronchodilator
    (2) Anti-inflammatory

  Long-term control

    (1) Bronchodilator
    (2) Mast cell inhibitors
    (3) Corticosteroids
    (4) Leukotriene modifiers

Case Study

Three-year-old Jordan is hospitalized for an asthma exacerbation. Upon your morning assessment, Jordan had decreased breath sounds and wheezing bilaterally. After lunch, you notice no wheezing.

Is this a good sign? Why or why not?

As a new nurse, what would you do first in this situation?

Who would you notify?

Nowak, Speakman, and Sayers (2016)

- Studied the delivery of information on PowerPoint

- Recovered 37 presentations from nursing curriculums

- Determined that there should be standards in the way PowerPoint slides are done

- Nursing curriculum is content heavy, the use of PowerPoint makes delivery of this information digestible

- Students experienced "text overload"

Two Content Layout with Table

Table 1: PowerPoint Planning and Best Practice Criteria

Planning	Consider addressing this in the planning:
	• Who is the target audience?
	• What do they already know about the material?
	• What do you want students to learn?
	• How will the classroom be set up?
	• What educational conditions exist (e.g., presentations prior to exam or semester break)?
	• Where will the presentation take place and under what conditions?
Criteria 1, **Cover Slide Labeling**	The first slide should contain:
	• Topic or title.
	• Name of the author.
	• Credentials of the author.
	• Date.
Criteria 2, **Educational Objectives**	Educational objectives should be:
	• Clearly stated in few words.
	• Placed toward the beginning of the presentation.
	• Use SMART or Bloom's format.
	(Note: Although there are many ways to construct educational objectives, Bloom's taxonomy or SMART educational objectives are commonly used.)
Criteria 3, **Color Template**	Incorporate questions within the slide show. The color used in the slides should be consistent. High-contrast colors with cool backgrounds (blue or green) are pleasing to the eye (Gabrielle, 2010).
Criteria 4, **Animation and Interaction**	Incorporate animation by developing:
	• Movable pictures.
	• YouTube videos.
	• Prezi program.
	• Movie-maker programs.
	• Music (interactive activities can be incorporated by placing show on construct mode to enable movement of pieces).
	• Use of audience response systems.
	• Interactive activity breaks.

Continued

Zdaniak, Gruman, and Cassidy (2017)

- Discussed how students relate the delivery of handouts to their educational experience

- "Perceived preparedness," (p. 470)

- Idea that physically having handouts will better prepare them for the material taught

Mueller and Oppenheimer (2014)

- Compared note-taking with reviewing material already printed on the handouts

- Students that studied from long-hand notes did much better on quizzes vs. those who took electronic notes

- Cornell note-taking system

Wilson (2019)

- Found "interactive," (p. 2) handouts provided the opportunity for students to retain what is being taught

- Large number of students forget all class material "within one day…," (p. 2)

- Supports the practice of note-taking and raising the question of should we have students learn how to take notes in anticipation of higher learning?

Methods

- Databases used: "Medline, health source: nursing/academic edition, CINAHL, CINAHL Plus with full text"

- Combination of search words were: "nursing education and handouts, nursing education and PowerPoints, nursing student education and handouts"

- Over 400 articles found

- Reviewed articles that were specific to material provided during class

Recommendations and Conclusion

- Handouts should be provided for nursing students

- Note-taking should be reviewed throughout educational experience

- What is written by the student during class is what is retained

- Handouts should be combination of material highlights, blank outlines, and practice questions

- Discussion is imperative to the classroom, especially with nursing curriculum

Thank you for listening

For any questions or thoughts related to this presentation, you may email me at a_chartier@salemstate.edu

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