Note Taking Skills: Everybody Needs Them

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Abstract: Note Taking Skills: Everybody needs them, reviews the current literature from the definition of note-taking to what is involved in the note taking process. This article also explores the role of the faculty member and examines note taking shorthand, abbreviations and symbols, and why the limited use of abbreviations and symbols is recommended. Today's student wants to take notes using an app for their smartphone or tablet. So, the article explores what note taking apps are available for the student.

Key words: note taking; abbreviation method

JEL codes: Y80, M10

1. Introduction

Note taking is an extremely important part of the learning process. A good set of notes will not only help students do better in school, but it will also help students enter virtually any of the careers that they may be planning to enter (Note Taking Introduction, 2012). Therefore, note taking is one of the most important skills students can use to improve their understanding and retention of material they read and are taught in class. Yet it is also one of the most erratic and unmonitored student activities that occur in the classroom (Glencoe, n.d.). The purpose of this article is to review the literature and purpose of note taking, explore the role of the faculty member, examine the abbreviation method of note taking, and look at digital note taking software.

2. Literature Review

"Note taking is the practice of recording information captured from a transient source, such as an oral discussion at a meeting or a lecture." (Liquori, 2012, p. 1). In discussing students, they take notes to record information that they will need to learn later (Boch & Piolat, 2005). According to "Shop Talk," note taking is used to record important information that students are trying to understand and need to remember (2010). "Note taking facilitates both recall of factual material and synthesis and application of new knowledge, particularly when notes are reviewed prior to exams." (Dezure, Kaplan, & Deerman, n.d, p. 2). In spite of its widespread use note taking has been ignored as a skill that should be taught, not at the university level or the secondary level, but in an ideal world, at the elementary school level. Instead it is assumed that students know intuitively how to take notes or it is assumed that learning has taken place somewhere in the curriculum. Note taking involves listening to information,

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often new and unfamiliar, transcribing that information quickly enough to keep up with a lecture, then organizing that information into proper form. According to Dezure et al., faculty can improve note taking skills by focusing on three areas: lecture strategies, handouts, and strategies for engaging students. Taking notes is a process in the classroom for active learning to take place. Instructors can emphasize that good notes: "(1) Are correct (or have been corrected); (2) Identify all main points and selectively include subsidiary points or support; (3) Connect supporting materials to the appropriate main point; (4) Connect examples or stories to the concepts they demonstrate; (5) Summarize the main points of class discussions; (6) Describe interactive experiences in the classroom; (7) Include student comments; (8) Use abbreviations (Dezure et al., n.d., p. 6)." Research strongly indicates students who take notes increase their retention levels (Rutgers Preparatory School, 2011). Rutgers believes strongly in this as students are introduced to note taking skills before their first research project.

> . . . the result of taking notes is much more than the production of a passive "external" information store, as the note taking action itself is part of the memorization process and results in the creation of a form of "internal" storage (Boch & Piolat, 2005, p. 104).

Note taking should be used as part of Writing Across the Curriculum for two reasons: it helps students learn, and it helps students learn to write, according to Boch and Piolat (2005). Also the reasons note taking skills are taught very little or not at all is that "Teaching how to condense information through the use of abbreviations leads to classes at two levels: (a) between teaching correct spelling, which is never completely successful, and abbreviation techniques that alter words; (b) between the syntactical organization of ideas and the telegraphic style (p. 107)."

The Common Core State Standards sets up the need and shows the importance of note taking. "…the CCSS were developed to provide a clear and concise framework to prepare students in the K-12 environment for college and careers (Holmes, 2012, p. 9)." The Common Core State Standards focus on core conceptual understandings and procedures starting in the early grades, thus enabling teachers to take the time needed to teach core concepts and procedures well—and to give students the opportunity to master them.

As an example, the Common Core State Standards for Grades 3 and 4 are: "G-3 Recall information from experiences or gather information from print and digital sources, take brief notes on sources and sort evidence into provided categories." "G-4 Recall information from experiences or gather relevant information from print and digital sources, summarize or paraphrase information in notes and finished work, and provide a list of sources (National Governors Association Center for Best Practices, Council of Chief State School Officers, 2010)."

3. The Purpose of Note Taking

Note taking consists of two major functions. The initial function is the actual process of taking notes. The second function is the management and/or organizing of notes for the purpose of studying. It is important that the student be actively engaged in both functions for learning to be maximized.

The purpose of taking notes is to actively engage the student in the learning process, by taking as many notes as possible in the shortest period of time, without being distracted from the listening and observation process.

Note taking helps maximize learning by:
- Increasing retention levels by moving information into long-term memory
- Assisting in studying for exams
- Being reminded of the key points of a lecture
- Recording information for future reference

- Building a better understanding of the subject
- Clarifying ideas that are not fully understood
- Listening better (more actively) in class
- Helping students to become actively involved in the learning process
- Increasing reading comprehension
- Condensing information

    The management and organizing of notes includes:

- Making notes readable
- Having a starting point when studying
- Helping ideas flow and helping in planning
- Listing words that need to be looked up in a dictionary
- Providing a record of where information comes from
- Organizing notes in folders/files by subject¸ topic, date, etc.
- Summarizing the notes enough to explain them to someone else
- Integrating multiple sources from files, mind maps, images, etc.
- Organizing notes in order to memorize them

4. The Role of the Faculty Member

Note taking is not all on the shoulders of the students. Faculty can help facilitate note taking by writing on the board, speaking at dictation speed, listing information, reading or citing definitions, and using organizers, such as first, second, etc. (Boch & Piolat, 2005). As well making students aware as to why they are taking notes aids the process.

Another way that students can be helped is by providing them with guided notes. Guided notes can come in the form of an outline of the lecture, or keyword notes. Students then can complete the notes as they listen to the faculty member present the material. Guided notes are better than providing the students with copies of complete PowerPoint (or another presentation software) handouts. This relieves the students of having to take notes and they rely solely on what is on the PowerPoint thus causing the students to be passive learners instead of active learners.

Taking notes assists students in being active during class. But taking notes does not end the process, it is just the beginning. After the notes are taken the students must review them to transfer the material from short term memory to long term memory. In addition to reviewing the notes students must organize them so they may be easily retrieved to study for an exam or as reference material while studying other notes.

5. Use of Abbreviations

Dr. Walter Pauk, developer of Cornell Notes, Educational Testing Service, colleges such as Harvard, Columbia, Cornell, Dartmouth, Princeton, Stanford and the University of Chicago, MIT, Oxford, the Imperial College of Science, Technology and Medicine, the University College of London, the University of Pennsylvania, Caltech, the University of Michigan and international universities such as Cambridge and Staffordshire to mention some all recommend taking notes using abbreviations (*U. S. News and World Report*, 2012). "Develop your own abbreviations for words you commonly use. Be careful not to go overboard with abbreviations, however. Abbreviating words may save you time to begin with, but you don't want to waste that time later trying to decipher your unfamiliar shorthand." (Pauk & Owens, 2011, p. 369). Each of us should have our own means of

taking notes as it can be an important part of all of our learning (Importance of Taking Notes, 2009). This is referred to as personal shorthand. It is a practical intelligence strategy that enables you to write faster. You can misspell words in ways that only you can understand. Therefore, reviewing your notes shortly after writing them is essential (Carter C., Bishop J. & Kravits S. L., 2009).

It is very important to use abbreviations because the average business speaker or school lecturer speaks at 120-160 words per minute. The average person writes at 25-30 words per minute (ERA Learning, 2004). If using digital note taking software however, the average person types at 42.67 words per minute (rankmytyping.com, 2009). When students use abbreviations, symbols, and paraphrases they are encoding or transforming information into their own comprehension system. This is referred to as efficiency in Carrell, Dunkel & Mollaun (2002). This efficiency only works when the students remember their abbreviations or paraphrases correctly. These abbreviations should be developed for words and phrases that appear frequently in the students' subject area. These abbreviations should not be developed too quickly and they should be used consistently (Kanar, 2008). By using abbreviations students can simultaneously take notes and listen more quickly and efficiently (King, 2012). In addition to creating their own abbreviations students should make their notes as legible as possible (Virginia Tech, 2009).

There is one time that notetakers do not want to use their personal abbreviations and that is when they are taking notes for visually impaired students. It is possible that the software on the students' computer will not recognize the abbreviations (University of Cambridge, 2011). Following is a table of symbols and abbreviations one might use.

Table 1   Symbols and Abbreviations Used in Note Taking

!	Important	Emp	Employee
"	Inches	Et al	And others
%	Percent	Etc	And so on
**	Remember this	Frdm	Freedom
:	Follow	Hosp	Hospital
^	Increasing	Ibid	In the same place
~	Approximately	Illus	Illustration
+-	Give or take	Inst	Institute
<>	Does not equal	K	Thousand
-->	Leads to	Lb	Pound
Admin	Administrative	Mgmt	Management
Aka	Also known as	Na	Not applicable
Ass'n	Association	Para	Paragraph
Avg	Average	Pp	Pages
b/c	Because	Re	Regarding
B4	Before	Sch	School
Bkgrd	Background	Soc	Social
c/o	Care of	Sts	Students
Ch	Chapter	Tech	Technology
Cnst	Constant	V	Decreasing
Coop	Cooperative	Vs	Versus
Def	Definition	w/i	Within
Dist	District	w/o	Without

6. Apple Store Apps

The following are iPhone or iPad apps located in the App Store under the heading: note taking retrieved on 7/31/2012. Today it is more efficient to keep notes on a computer because the notes are easier to search and sort through (Anthony, 2011). It appears that even our state departments of education recognize that cursive writing, handwriting, is not as important as it has been for 100's of years (Rodreguez, 2011). So much so that 46 states have adopted the Common Core State Standards for English, a new set of standards students are expected to learn before graduation, which doesn't include cursive writing (McNeil, 2009). These apps are more note taking management systems than direct note taking apps. They have a variety of uses after personal shorthand notes have been taken and deciphered.

Table 2   Apple Store Apps

Name of App	Functions
MindNode	Is a mind mapping software app that is used for collecting, organizing, and outlining. iPhone, iPad, iPod Touch
Nebulous Notes	Is a text editor and is backed up by Dropbox. Includes a macro system that allows you to add frequently used keys to a toolbar such as { }[ ] = %, etc. iPhone, iPad, iPod Touch
PhotoText	Takes photos of things you want to take notes of. iPhone, iPad, iPod Touch
MyTymz	To-Do Lists and Task Alerts. Has text, photo, voice, video & location. Useful for journaling. iPhone, iPad, iPod Touch
SoundNote	Records audio while taking notes. iPad
Popplet	Brainstorming and mind mapping. iPhone, iPad, iPod Touch
JustType	Allows you to take notes of a document you have on a screen (annotate). iPhone, iPad, iPod Touch
Outline	Type anywhere on a page. Format text and create lists. Reads OneNote files. Syncs notes with USB. iPad
MobileNoter	Can take standalone notes but its power comes to play when used with Microsoft OneNote. iPad
Note Taker HD	Used for writing and organizing handwritten notes and can be used to annotate PDF files. iPad
Sticky Notes	Ability to save short notes to keep yourself organized. iPad

The following note taking apps were taken from the Fletcher Graduate Writing Program at Tufts University (2011).

Table 3   Note Taking Apps

Name of App	Functions
Microsoft Word	Drawbacks are that it is unstructured, difficult to search and rearrange notes.
Google Docs	Lacks advanced collaboration features. Good for sharing team documents.
Microsoft OneNote	Makes virtual note cards. Categorizes notes by your headings. Allows notes to be taken with a stylus.
Evernote	Distinguished by its sync function. Transfers notes from a web server to as many computers as necessary.
Endnote	Is good for research papers. Allows you to take notes directly in the citation manager. It is not useful for classroom notes, however.
Papers	An application for note taking and library organization. It is good for searching, storing, browsing, note taking, and comparing anything related to research papers.
Skim	A program for annotating PDFs. Allows you to add sticky notes, underline, highlight, and draw circles and boxes.

7. Conclusion

Research strongly recognizes note taking as an extremely important part of any learning process in that it contributes to the note taker's increased retention level. Even with strong research results in-hand note taking has been one of those skills that have been rarely taught until recently.

Part of the note taking process is the ability to take notes in an effective and efficient manner. Abbreviations and symbols have been recognized as a good method to accomplish this task by the top 400 colleges and universities in the world. Stanford University and Dr. Walter Pauk recognize abbreviations and symbols as a note taking shorthand. Research and a note taking shorthand are positive directions to an effective and efficient note taking method that will benefit our students.

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