

When did “Withitness” Become More Important than Educational Psychology?

Analyzing Textbook Vocabulary

K.C. Holder

Northern Michigan University

Paper Presented at the American Educational Research Association
Annual Conference, April 2006, San Francisco, CA

Abstract

The purpose of this study was to conduct a content analysis of educational psychology textbook vocabulary published during or after 2000. Seven textbooks have been published and are currently in print. Textbook keywords, key concepts, vocabulary words and/or glossaries were analyzed to create a descriptive account of all words defined in the texts. Initial results found that, in sum, the seven texts introduce and define 1,763 different vocabulary- or key-words. 1,198 (67.9%) of the keywords appear in only one text meaning that almost 70% of the keywords are unique to individual texts. Further, only 30 (1.7%) of the 1,763 words are listed and defined in all seven texts; 199 (11.2%) are used in 4, 5, 6, or 7 texts; whereas, 1,564 (88.8%) are listed and defined in three or fewer texts. One implication is that 88.8% of the keywords introduced have less than a 50% consistent- use agreement from the current published texts (i.e., only 3, or less, of the 7 authors define the word). The paper concludes with the question of which of the following pedagogical metaphors best describes the presentation of textbook vocabulary: “inundate with an abundance of terminology,” or “the heart of the discipline.”

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“Precise terminology. Language that eliminates vague terms (such as *perhaps*, *might*, and *so on*, and *usually*)” (Eggen & Kauchak, 2004, p. 582).

For the field, educational psychology texts can help to create common experiences and a common vocabulary across universities and states (Woolfolk Hoy, 1996, p. 44)

The application of a critical analysis to the dominant discourse of educational psychology found in its textbooks springs not only from the fact that textbooks are important “pedagogic vehicles,” but also that textbooks supply a succinct compilation for what the discipline considers to be its “heart.” (Gallagher, 2003, pp. 56-57).

Is it *precise* terminology if undergraduate educational psychology textbooks present twenty-nine different terms related to cognition? The following list contains words that are either keywords or vocabulary words, that are all associated to cognitive, and found either in the index or glossary of undergraduate educational psychology textbooks. The list includes: cognitive academic learning proficiency; cognitive apprenticeship; cognitive approaches; cognitive approaches to management; cognitive behavioral approaches; cognitive behavioral modification; cognitive constructivism; cognitive context; cognitive development; cognitive developmental theory; cognitive developmental theory of gender; cognitive dissonance; cognitive domain; cognitive evaluation theory; cognitive learning theories; cognitive load theory; cognitive modeling; cognitive moral education; cognitive objectives; cognitive processes; cognitive psychology; cognitive science; cognitive stage; cognitive strategy; cognitive styles; cognitive theories of motivation; cognitive tool; cognitive view of learning; and, cognitive academic language proficiency.

Ash & Love-Clark (1985) asked a critical question still pertinent for today, “What is and has been the content of educational psychology as evidenced by its textbooks?” (p. 47). In order to answer their question, these researchers collected topics covered in the table of contents, created an exhaustive list of almost 200 topics, then analyzed textbooks based upon a collapsed version of 38 categories. Their intent was to determine the “coverage” of topics based upon page allocations during three different time periods: 1954-64; 1965-75; and 1976-83. The duo concluded:

It is clear that the content of educational psychology textbooks has been changing over the last three decades and many of these changes have been away from theory and toward the classroom. Whether these changes have produced better or worse textbooks remains a question (p. 54).

Guided by the Ash & Love-Clark study, the premise of critically examining vocabulary represented by the opening quotes, and especially the 2006 AERA Conference Theme of Educational Research in the Public Interest, this study is an attempt to examine the “heart” of educational psychology, that of educational psychology textbooks. If the heart is considered the topics found in the Table of Contents, the “life-blood” of the discipline is the vocabulary.

Eggen & Kauchak’s plus Woolfolk Hoy’s opening quotes above, and in particular “precise terminology” and “a common vocabulary,” raise important questions such as: Are Educational Psychology textbooks presenting precise vocabulary terminology? How, if at all, does frequency of occurrences across different textbooks represent a common vocabulary?

Theoretical Framework

The theoretical frameworks guiding this content analysis were twofold. First, Meyer (2001), conducting research on multimedia learning and concluded seven

principles are related to a cognitive theory of multimedia learning. Among the seven principles, Meyer describes one as: “**Coherence Principle** Students learn better when extraneous material is excluded rather than included” (p. 113). Mayer goes on to write the theoretical rationale as: “Extraneous material competes for cognitive resources in working memory and can divert attention from the important material, can disrupt the process of organizing the material, and can prime the learner to organize the material around an inappropriate theme” (p. 113).

More specifically, Mayer explains, “Coherence Principle 3: Student learning is improved when unneeded words are eliminated from a multimedia presentation” (p. 114). Although Mayer’s research is grounded within multimedia learning, the notion of “coherence” and “unneeded words” represents a foundation of the theoretical framework guiding this inquiry.

Second, Vacca & Vacca’s (2005) Chapter 8, “Developing vocabulary knowledge and concepts” also provided support for the framework of this study. They write, “Teaching words well means giving students multiple opportunities to learn how words are conceptually related to one another in the texts they are studying” (p. 265). Their premise, “Teaching words well” and “means multiple opportunities” raises several questions: How many times is multiple? How many words can a student learn in one course?

More specifically, Vacca & Vacca write,

Students need many experiences, real and vicarious, to develop word meanings and concepts. The need to use, test, and manipulate technical terms in instructional situations that capitalize on reading, writing, speaking, and listening. In having students do these things, you create the kind of natural language environment that is needed to extend vocabulary and concept development (p. 281).

The principle of manipulating technical terms through multiple modalities (e.g., reading, writing, speaking and listening) implies that one must be provided with multiple opportunities to use the language one is attempting to learn. How does the natural language environment relate to the heart of a discipline? What is the role of a survey text in representing the discipline?

Beyond these questions that may appear superficial, the theoretical framework emerges as a foundational question: Where is the coherence between introducing vocabulary and accurately representing a discipline? In other words, the theoretical framework can be summarized as applying Mayer's (2001) coherence principle to introductory textbooks in light of what is feasible given current understanding of developing vocabulary knowledge (Vacca & Vacca, 2005).

Guiding Inquiry Question

The overarching research question guiding this content analysis was: What keywords and/or vocabulary are presented in undergraduate educational psychology textbooks currently in print and published in or after 2000?

Methods

The method of analysis for this study was a descriptive content analysis. Paraphrasing Altheide (1996) and Borg & Gall (1989), the process of content analysis is: 1) choose topic; 2) locate relevant data; 3) develop sampling plan; 4) pilot and code data; 5) analysis; and, 6) report.

In conducting steps 1 – 4 above, the Vocabulary words and frequency of occurrences record keeping tool was developed (See Table 1 for an example). An

abbreviated form or the starting letter(s) of the author(s) last name was used as headers for columns 3-9 and the rows were filled in by adding keywords until all vocabulary / keywords from all the texts were included in the list. As new words were added, each time a keyword was included in a text, an “X” was recorded in the appropriate column. Thus, as displayed in Table 1, “Ability grouping” appears in “2” texts and the texts are “E,K” (Eggen & Kauchak, 2004) and “S,W” (Sternberg & Williams, 2001).

Table 1: Sample list

Educational Psychology Vocabulary

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Ability grouping	2	X							X	
Absence seizure	1									X
Abstract modeling	1		X							
Academic diversity	1		X							
Academic learning time	1									X
Academic tasks	1									X
Acceleration	2	X	X							
Acceleration programs	1							X		
Accommodation	8	X	X		X	X	X	X	X	X
...										

Also, during the coding process, the following “rules” emerged: plural forms of words were categorized as the same; whereas, some words that might “mean the same” yet were presented as different words or phrases were categorized as different words.

In other words, the author made no attempt at “interpreting” different “forms” of the keywords presented. An example of the “might mean the same” rule is presented in Table 2. As seen, “jigsaw” was mentioned in all seven texts. However, when read literally, there were distinct differences that lead to identifying four separate terms. It

should be noted that Table 2 was constructed before Jordan & Porath (2006) and Ormrod (2006) were added – as in Table 1 (the rationale for the addition of these two texts is that they were published after the AERA proposal was submitted so they are included but the addition makes the total list 9 texts rather than 7 as in the abstract).

Analysis, for the purposes of this paper, was strictly descriptive of the results from the table. In other words, the frequencies (i.e., the second column) were tabulated to record the percentages of occurrences per word. This descriptive data provided the information for Tables 3, 4 and 5 below in the results section.

Table 2: Examples of “Jigsaw” related term

Words	#	E,K	F,M	Orm	Sntk	Slvn	S,W	Wlfk
Jigsaw	4		X			X	X	X
Jigsaw classroom	1				X			
Jigsaw technique	1			X				
Jigsaw II	1	X						

Lastly, further sampling and coding was done to describe the pages of readable text in comparison to Introduction materials (e.g., Preface, Table of Contents, etc.) compared to Readable Text (i.e., the content), and Closing material (e.g., Glossary, Reference List, etc.). This analysis will be further described below in the results (for example See Table 6).

Data Sources

The data sources for the analysis were current and in print, Educational Psychology textbooks that were published in or after the year 2000. The reference list has the text titles for the “data sources.”

Results

Table 1 above has the first 9 terms of a list that eventually reached 1,763 vocabulary words as these words are presented in the textbooks. Appendix 1 (electronic version only) displays the comprehensive list of terms and which texts they appeared in.

Next, the actual list of words compared to frequency of texts is presented in Table 3. Table 4 has a list of the 30 words that appeared in all 7 texts prior to the addition of Jordan & Porath (2006) and Ormrod (2006). Table 5 has the total number of keywords found in each text and the number of keywords unique to the specific text. Lastly, Table 6 documents the breakdown of readable text compared to introductory text and pages associated with the index / glossary.

Table 3: Number of words that appear in frequency of texts

Words that appear in:	Number	% of total (nearest tenth)
All 7 Textbooks	30	1.7
6 Textbooks	40	2.3
5 Textbooks	48	2.7
4 Textbooks	81	4.6
3 Textbooks	118	6.7
2 Textbooks	248	14.1
Only 1 Textbook	1198	68.0

Table 4: “Top 30: Words that appear in all Seven Textbooks”

Accommodation; Assimilation; Attention-deficit/hyper activity disorder; Automaticity; Classical Conditioning; Concept; Conservation; Cooperative Learning; Culture; Elaboration; Individualized Education Program (IEP); Learning disability; Long-term Memory; Metacognition; Motivation; Operant Condition; Premack Principle; Punishment; Reliability; Scaffolding; Schema; Self-esteem; Standard Deviation; Standardized Tests; Stanine Score; Theory; Validity; With-it-ness; Zone of Proximal Development; Z-score.

Table 5: Total number of Vocabulary words by Text

Reference	Total # of Keywords / Vocabulary words	Total # of words that appear <i>only</i> in this text
Eggen & Kauchak (2001)	375	125
Fetsco & McClure (2003)	527	270
Ormrod (2003)	464	182
Santrock (2006)	354	135
Slavin (2006)	409	166
Sternberg & Williams (2001)	452	153
Woolfolk (2004)	502	167
AVERAGES	440.4	171.2

Table 6: Pages in text

Reference	Total # of pages in beginning (e.g., preface, table of contents)	Total # of pages in actual text	Total # of pages in post text (e.g., glossary, reference, index)	Total # of pages
Eggen & Kauchak (2001)	22	568	82	672
Fetsco & McClure (2003)	20	472	41	533
Ormrod (2003)	23	600	104	727
Santrock (2006)	40	556	80	676
Slavin (2006)	27	524	85	637
Sternberg & Williams (2001)	31	545	71	624
Woolfolk (2004)	33	580	119	702
AVERAGES	28	549.3	83.1	653

Critique and Significance

The significance of this study is threefold. First, given that only 30 words appear in all seven textbooks, a call to question the accuracy of the representativeness of the textbook vocabulary to that of the discipline of educational psychology. Second, given texts on average introduce 440.4 words, a call to question the actual number of keywords presented. In particular, what is the feasibility of students actually learning this many subject specific words in one course?

Restating Mayer's (2001) Coherence Principle, "**Coherence Principle** Students learn better when extraneous material is excluded rather than included" (p. 113), the educational significance may be summarized as the central question of viability emerges: Which of the 1,763 keywords are central to the discipline and which are extraneous?

The average educational psychology textbook introduces 440.4 words and contains 549.3 pages of readable text. In a typical 16-week semester course that meets twice a week, students will have approximately 30 course meetings (minus one for first day and one for the final). These students *on average* will be expected to learn 14.7 vocabulary words and read 18.3 pages for every single class meeting. In 16 weeks or 110 days, students must learn on average four new words per day while reading approximately five pages per day.

Perhaps a more telling story than the averages is that 1,763 words were presented as either keywords or vocabulary words representing the field of "Introductory Educational Psychology." Using the total number of keywords presented and the semester course example of 110 days, a student must learn approximately 16 keywords per day in order to "be introduced to" the field of educational psychology as presented by these seven textbook authors.

Thirdly, moving beyond the representativeness of the discipline and the feasibility of actually learning the sheer number of words is the crucial issue of accuracy. Table 7 presents the textbook definitions of "educational psychology." A quick glance finds that two textbooks do not define or list educational psychology as a keyword. Further, a *fundamental* question of accuracy emerges from only the first two or three words of each definition. For example: Is educational psychology a branch of psychology, a discipline,

an academic discipline, a study, or a science? For the undergraduate reader, whom may be being introduced to educational psychology for the first time, the obvious differences found in the simple definition of the field may be one of great confusion and perhaps lead to misconceptions from “Day 1.”

Table 7: Definitions of Educational Psychology

Author(s)	Definition
Eggen & Kauchak (2004)	Does not list as a keyword.
Fetsco & McClure (2003)	educational Psychology The branch of psychology that is concerned with the study of mental processes and behaviors associated with human learning and instruction (p. 477).
Jordan & Porath (2006)	Does not list as a keyword.
Ormrod (2003)	educational psychology A discipline encompassing psychological principles and theories related to learning, child and adolescent development, motivation, individual and group differences, and psychological assessment, especially as these topics relate to classroom practice (p. G-3).
Ormrod (2006)	educational psychology Academic discipline that studies and applies concepts and theories of psychology relevant to instructional practice (p. G-2).
Santrock (2006)	educational psychology The branch of psychology that specializes in understanding teaching and learning in educational settings (p. G-3).
Slavin (2006)	educational psychology The study of learning and teaching (p. 3).
Sternberg & Williams (2001)	educational psychology Science that draws from psychology knowledge that is relevant to education and applies this knowledge to improving the quality and outcome of the educational process (p. 34).
Woolfolk (2004)	educational psychology The discipline concerned with teaching and learning processes; applies the methods and theories of psychology and has its own as well (p. 601)

Beyond the rhetoric within the definition of the discipline, the accuracy issue is further exacerbated when one compares the notion of how a particular word within the textbooks is defined and compares that to how authors from the actual *other* discipline define the same word. Table 8 lists five sample textbooks from the field of measurement

and/or assessment written by measurement specialists along with the educational psychology textbook definitions of validity.

Table 8: Definitions of Assessment Validity and Educational Psychology textbook definitions of validity

Measurement / Assessment textbook definition of validity	
Gronlund (2006).	Validity The extent to which inferences made from assessment results are appropriate, meaningful and useful in terms of the purposes for the assessment. Validity is a unitary concept that depends on a variety of types of evidence, is expressed by degree (high, low), and refers to the inferences drawn (not the instrument itself) (p. 224).
Linn & Miller (2005).	Validity is an evaluation of the adequacy and appropriateness of the interpretations and uses of assessment results (p. 68).
Popham (2005).	Validity reflects the defensibility of the score-based inference made on the basis of an educational assessment procedure (p. 23).
Reynolds, Livingston, & Willson (2006).	Validity refers to the accuracy of the interpretations of test scores (p. 4).
Thorndike (2005).	Validity has to do with the degree to which test scores provide information that is relevant to the inferences that are to be made from them (p. 110).
Educational Psychology textbook definition of Validity	
Eggen & Kauchak (2004)	Validity An indicator of the extent to which an assessment actually measures what it is supposed to measure (p. 585).
Fetsco & McClure (2003)	Validity Refers to the quality or the correctness of an explanation or decision (p. 483).
Jordan & Porath (2006)	Does not list as a keyword
Ormrod (2003)	Validity The extent to which an assessment instrument actually measures what it is intended to measure (p. G-8).
Ormrod (2006)	Validity Extent to which an assessment instrument actually measures what it is intended to measure and allows appropriate inferences about the characteristic or ability in question (p. G-5).
Santrock (2006)	Validity the extent to which a test measures what it is intended to measure and whether inferences about the test scores are accurate (p. G-9).
Slavin (2006)	Validity A measure of the degree to which a test is appropriate for its intended use (p. 517).
Sternberg & Williams (2001)	Validity refers to the degree to which a test provides measurements that are appropriate for its intended purpose (p. 482).
Woolfolk (2004)	Validity Degree to which a test measures what it is intended to measure (p. 607).

Of the measurement / assessment texts, all five mention either “interpretation” or “inference.” Of the educational psychology textbooks, only one-third (3 of 9) (Fetsco & McClure, 2003; Ormrod, 2006; Santrock, 2006) include the notion of validity being associated with inferences or interpretations of test scores. Thus, one could argue that 66% of the currently published educational psychology textbooks are potentially the cause of misconceptions regarding students’ conceptions of validity based upon inconsistent definitions with the measurement specialists.

Conclusion

Gallagher (2003) argues that Educational Psychology, as a field, is in need of a critique. She writes:

An important issue in this criticism is the emphasis on the efficiency of action, or the “means,” by which the control is produced, not on the value of the goal of the practice itself. This implies a separation of factual information intended to facilitate teaching from questions of values that is indicative of technical rationality’s goal of gaining control through mastery of theory. The concern is with how to do things, and how to do them more efficiently, rather than on what it is that should be done. Teachers internalize this logic of efficiency (Gallagher, 2003, pp. 73-4).

For me, the logic of efficiency contradicts learning four new words a day for 110 days.

Given only 30 words appear in all seven texts, should the goal of a teacher of educational psychology be to only teach those 30 keywords?

More so, utilizing Gallagher’s ideas, what is the dominant model of pedagogy underlying the textual presentation of educational psychology geared toward pre-service teachers? Using a pedagogical metaphor, which best represents the presentation of vocabulary in these undergraduate texts: Inundate with abundant terminology, socialize them into a field of inquiry, challenge the dominant discourse, or the heart of the discipline?

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APPENDIX

Educational Psychology Vocabulary (including 2006 texts)

Notes:

1. If the “#” is in *italics* then it was changed due to Jordan & Porath (2006)
2. If the “keyword” is in *italics* then it was “new” and added to the list by Jordan & Porath (2006)
3. If the “#” is in **bold** then it was changed due to Ormrod (2006)
4. If the “keyword” is in **bold** then it was “new” and added by Ormrod (2006)
5. If the “#” and/or “keyword” is in both *italics and bold* appeared in both texts

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Ability grouping	2	X							X	
Absence seizure	1									X
Abstract modeling	1		X							
Academic diversity	1		X							
Academic learning time	1									X
Academic tasks	1									X
Acceleration	2	X	X							
Acceleration programs	1							X		
Accommodation	8	X	X		X	X	X	X	X	X
Accommodation for students with disabilities	1		X							
Accountable	1									X
Accountability	5	X			X	X		X	X	
Achievement batteries	1							X		
Achievement motivation	3				X			X	X	
Achievement motive	1		X							
Achievement tests	6	X	X				X	X	X	X
Acronym	1									X
Action research	6	X	X		X		X	X		X
Action zone	1									X
Activation	1				X					
Activation spreading	1									X
Active listening	4	X	X				X		X	
Active teaching	1									X
Activity reinforcer	2		X		X					
Actual developmental level	1				X					

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Adaptation	4	X	X					X		X
Adaptive behavior	3	X		X	X					
Adaptive fit	1	X								
Adaptive testing	1				X					
Additive bilingualism	1								X	
Adjunct questions	1		X							
Adolescent egocentrism	2		X							X
Advanced organizer	7		X		X	X	X	X	X	X
Aesthetic needs	1		X							
Affect	2				X	X				
Affective domain	3	X							X	X
Affective memories	1	X								
Affective objectives	1							X		
Affiliation motive	1		X							
African American English	2				X	X				
Age-equivalent score	2				X	X				
Aggressive behavior	2				X	X				
Aggressive style	1						X			
Algorithm	7	X	X		X	X	X		X	X
Allocated time	2							X	X	
Alternative assessment	1	X								
Alternative response test items	1		X							
Alternative-forms reliability	2		X				X			
Americans with Disabilities Act	1									X
Analogical instruction	1									X
Analogical problem construction	1		X							
Analogical representation	1								X	
Analogical thinking	1									X
Analogies	3	X					X	X		
Analytic scoring	1				X					
Anchored instruction	1									X
Androgynous	1									X
Androgyny	2						X		X	

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Anorexia nervosa	2								X	X
Antecedents	3	X	X							X
Antecedent response	1				X					
Antecedent stimuli	2				X			X		
Antithesis	1								X	
Anxiety	6	X	X		X	X			X	X
APA Style	1					X				
Applied behavior analysis	6	X	X		X		X	X		X
Apprenticeship	2				X	X				
Appropriate	1									X
Aptitude tests	5	X	X				X	X		X
Aptitude-treatment interaction	1							X		
Aptitude-by-treatment interactions	1								X	
ARCS	1		X							
Arousal	2								X	X
Arousal potential	1		X							
Articulation disorders	3		X				X			X
Artifact	1		X							
Assertive discipline	4	X						X	X	X
Assertive style	1						X			
Assessment	5	X			X	X		X		X
Assessment bias	1									X
Assessment plan	1		X							
Assessment systems	1								X	
Assessment task	1		sX							
Assimilation	8	X	X		X	X	X	X	X	X
Assisted learning	1									X
Assistive technology	2	X	X							
Associative learning	1						X			
Associative play	1							X		
Associative stage	1		X							
Atkinson-Shiffrin model	1						X			
At-risk	1								X	
Attachment	2				X				X	
Attainment value	2		X							X
Attention	5	X	X				X	X		X

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Autonomous stage	1		X							
Autonomy	2			X						X
Autonomy versus shame and doubt stage	1								X	
Availability heuristic	2						X		X	
Aversive	1									X
Aversive stimulus	2							X	X	
Avoidant attachment	1								X	
Back-up reinforcers	2		X		X					
Backward chaining	1		X							
Backward design	1					X				
Backward planning	1							X		
Backward- reaching transfer	2						X		X	
Base group	1				X					
Baseline	2		X		X					
Basic interpersonal communication skills	2	X	X							
Basic skills	1									X
Basic skills and phonics approach	1						X			
Behavior disorders	1	X								
Behavior modification	3							X	X	X
Behavior momentum	1				X					
Behavior content matrix	1							X		
Behavioral fluency	1		X							
Behavioral learning theories	3							X	X	X
Behavioral objectives	2						X			X
Behaviorism	3				X	X	X			
Behavior modification	1				X					
Being needs	1									X
Belief perseverance	1						X			
Belonging needs	1		X							
Belongingness	2				X	X				
Best work portfolio	1						X			

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Between-class ability grouping / tracking	4						X	X	X	X
Between group differences	1		X							
Bias	1							X		
Bidialecticism	1	X								
Big Five	1		X							
Big Five personality traits	2		X				X			
Bilingual education	4				X		X	X	X	
Bilingualism	2								X	X
Bimodal distributions	1								X	
Blended families	1									X
Blindness	1		X							
Bloom's taxonomy	3				X	X	X			
Book clubs	1						X			
Bottom-up processing	2		X							X
Brainstorming	1									X
Branching program	1		X							
Bulimia	1									X
Bulimia nervosa	1								X	
CAPS	1									X
CD-ROM	1							X		
Calling order	1							X		
Canalization	1								X	
Care perspective	1						X			
Caring	1	X								
Case study	3						X		X	X
Central executive	1									X
Central tendency	2						X			X
Centration	3	X	X				X			
<i>Cephalocaudal principal</i>	1			X						
Cerebral palsy	3						X		X	X
Chaining	1		X							
Chain mnemonics	1									X
Challenge	2				X	X				
Character Education	3	X	X				X			

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Characteristic features	2	X							X	
Checklists	2	X			X					
Child abuse	1		X							
Child find	1		X							
Children who are gifted	1						X			
Choral responses	1							X		
Chronological age	1							X		
Chronosystem	1		X							
Chunking	5	X	X				X		X	X
Circular reactions	1		X							
Clang	1							X		
Class inclusion	1							X		
Classical conditioning	7	X	X		X		X	X	X	X
Classification	3	X	X							X
Classroom assessment	2	X							X	
Classroom climate	3	X			X	X				
Classroom management	7	X	X		X	X		X	X	X
Classroom procedure	1		X							
Clinical method	1					X				
Cliques	3		X		X	X				
Closure	1	X								
Cluster grouping	1		X							
Cluster style	1						X			
Co-constructed process	1									X
Code-switching	1									X
Cognition	1					X				
Cognitive academic language proficiency	1	X								
Cognitive apprenticeship	7	X	X		X	X	X	X		X
Cognitive approaches	1								X	
Cognitive approaches to management	1	X								

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Cognitive/Academic Language Proficiency	1		X							
Collaboration	1							X		
Collective monologue	1									X
Collective self- efficacy	2				X	X				
Collective self- esteem	2	X								X
Collectivism	1						X			
Communication disorders	2	X							X	
Community of learners	2				X	X				
Community of practice	1									X
Comparative advanced organizers	2		X				X			
Compensation	2		X							X
Compensatory education	1							X		
Compensatory preschool programs	1							X		
Competence	2	X		X						
Competence motivation	1						X			
<i>Competencies</i>	1			X						
Compilation	1		X							
Completion format	1	X								
Completion items	1							X		
Complex learning environment	1									X
Component skills	1	X								
Composition	1		X							
Comprehension monitoring	3	X			X	X				
Computer-adaptive	1							X		
Computer-assisted instruction (CAI)	2							X	X	
Computer-based instruction (CBI)	2				X	X				

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Criterion-referenced score	2				X	X				
Criterion-referenced testing	3			X					X	X
Criterion-related evidence	1							X		
Criterion stimuli	1		X							
Criterion validity	1						X			
Critical periods	2	X							X	
Critical thinking	7	X			X	X	X	X	X	X
Cross-age tutoring	1							X		
Cross-cultural studies	1						X			
Cross-sectional research	1						X			
Crowd	2				X	X				
Crystallized intelligence	2								X	X
Cue-dependent forgetting	1						X			
Cueing	3				X	X				X
Cues	3	X	X					X		
Cultural bias	3	X			X	X				
Cultural capital	1		X							
<i>Cultural competence</i>	1			X						
Cultural deficit model	1									X
Cultural deficit theories	1	X								
Cultural difference theories	1	X								
Cultural inversion	1	X								
Cultural mismatch	1				X					
Cultural tools	1									X
Culturally compatible classrooms	1									X
Culturally relevant management	1									X
Culturally relevant pedagogy	1									X
Culturally responsive teaching	2	X	X							

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Culture	7	X	X		X		X	X	X	X
Culture fair / culture free test	3						X		X	X
Culture shock	2				X	X				
Curriculum-based assessment	1	X								
Curiosity	1		X							
Cutoff score	1							X		
Database	1							X		
Deaf	1	X								
Debilitating anxiety	2				X	X				
Decay	3				X	X				X
Decay theory	2						X		X	
Decentering	1									X
Decision making	1						X			
Declarative knowledge	6	X	X		X	X			X	X
Declarative knowledge network	1		X							
Declarative memory	1						X			
Deductive reasoning	4				X		X		X	X
Deep/surface styles	1						X			
Deferred imitation	1		X							
Deficiency needs	4	X	X					X		X
Defining attributes	1									X
Defining features	2				X				X	
Delay of gratification	2				X	X				
Dependent group contingency	1		X							
Dependent variable	1						X			
Derived score	1							X		
Derived structural schema	1		X							
Descriptive statistics	2						X			X
Descriptive study	2				X	X				
Descriptive research	3	X						X	X	
Desist	1	X								
Desktop publishing	1							X		
Development	3	X						X		X
Developmental crisis	2								X	X
Developmental milestone	2				X	X				

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
<i>Developmental niche</i>	1			X						
Developmentally appropriate education	2						X	X		
Developmentally appropriate practice	1		X							
Deviation IQ	2								X	X
Diagnostic decisions	1		X							
Diagnostic tests	3	X						X		X
Dialect	5	X			X	X			X	X
Dialectical thinking	1								X	
<i>Didactic</i>	1			X						
Differential aptitude tests	1								X	
Difficult child	1						X			
Digital photographs	1							X		
Direct instruction / explicit teaching	7		X		X	X	X	X	X	X
Direct observation	1		X							
Direct reinforcement	1								X	
Disability	4	X					X	X		X
Discipline	3	X						X	X	
Discontinuous theories of development	1							X		
Discovery learning	7		X		X	X	X	X	X	X
Discriminant evidence	1							X		
Discrimination	6	X	X		X			X	X	X
Discussion	1	X								
Disequilibrium	4				X	X			X	X
Disinhibitory effect	1		X							
Disorder	1	X								
Disposition	2				X	X				
Dispositional attributes	1								X	
<i>Distal-proximal principal</i>	1			X						
Distance learning	1				X					
Distractors	4	X						X	X	X
Distributed cognition	3		X		X	X				
Distributed intelligence	2				X	X				

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Distributed learning	1								X	
Distributed practice	3		X					X		X
Distributive justice	3				X	X				X
Divergent questions	1									X
Divergent thinking	5				X	X	X		X	X
Diversive exploration	1		X							
Domain-general development	1								X	
Domain-specific development	1								X	
Domain-specific knowledge	1									X
Domain-specific strategies	1									X
Down syndrome	1						X			
Drawing analogies	1	X								
Drill and practice	1							X		
Drill and practice programs	1		X							
Drive	1				X					
Dual code theory of memory	2	X						X		
Dual processing	1	X								
Due process	1	X								
Dynamic assessment	2				X	X				
Dynamic assessment environment	1								X	
Dyslexia	1						X			
Early intervention	1							X		
Early intervention programs	1							X		
Easy child	1						X			
Echolalia	1		X							
Ecological theory	1						X			
Educational objective	1		X							
Educational psychology	7		X		X	X	X	X	X	X
Educational technology	1		X							
Educationally blind	1									X
Egocentric	3			X				X		X

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Egocentricity	1								X	
Egocentric speech	2		X		X					
Egocentrism	2	X	X							
Ego-involved learners	1									X
Elaboration	8	X	X		X	X	X	X	X	X
Elaborative questioning	1	X								
Elaborative rehearsal	2								X	X
Electronic whiteboard	1							X		
Eliciting stimulus	1		X							
E-mail	1						X			
Emergent literacy	1							X		
Emotional and behavioral disorders	4				X		X	X	X	
Emotional disturbance	1		X							
Emotional intelligence (EQ)	1									X
Emotions	1		X							
Empathetic listening	1									X
Empathy	4	X			X	X			X	
Emphasis	1	X								
Empowering school culture	1							X		
Empowerment	1						X			
Enactive knowledge representation	1		X							
Enactive learning	1		X							
Enactment	1							X		
Encoding	5	X	X		X	X	X			
Encoding specificity	2						X		X	
Enculturation	1								X	
Engaged time	3							X	X	X
English as a second language (ESL)	4	X						X	X	X
Enrichment	3	X	X					X		
Enrichment activities	1							X		
Enrichment programs	1							X		
Entity view of ability	2		X							X

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Entity view of intelligence	4	X			X	X			X	
Environmental analysis	1		X							
Epilepsy	3						X		X	X
Episodic memory	4						X	X	X	X
Epistemic value	1		X							
Epistemological beliefs	2				X	X				
Equilibration	7		X		X	X	X	X	X	X
Equilibrium	2	X				X				
Equitable distribution	1	X								
Equity	3				X					
Equity pedagogy	1							X		
Equivalence	1		X							
Error	1		X							
Essay format	1	X								
Essay items	1						X			
Essential questions	1						X			
Essential teaching skills	1	X								
Esteem needs	1		X							
Ethnic gloss	1						X			
Ethnic pride	1									X
Ethnicity	5	X					X	X	X	X
Ethnic group	3				X	X		X		
Ethnic identity	2				X	X				
Ethnographic study	1						X			
Ethnography	1									X
ETS Score	2				X	X				
Evaluation	4	X						X	X	X
Evaluative descriptors	1							X		
Events of instruction	1		X							
Exceptional children	1								X	
Exceptional learners	1		X							
Exceptional students	1									X
Exceptionalities	1	X								
Executive control processes	1									X
Exemplar	4	X			X				X	X

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Exhibition	3		X						X	X
Exosystem	1		X							
Expectancy	1				X					
Expectancy theory	1							X		
Expectancy-valence model	1							X		
Expectancy X value theories	3	X							X	X
Experiment	1							X		
Experimental group	2						X		X	
Experimental research	3	X					X		X	
Experimental study	2				X	X				
Experimentation	1									X
Expert	2	X		X						
Expertise	1					X				
Expert knowledge	1						X			
Expert students	1								X	
Expert teachers	2								X	X
Explicit memory	1									X
Explicit strategy instruction	1		X							
Exploratory behavior	1		X							
Expository advanced organizers	2		X				X			
Expository instruction	2				X	X				
Expository teaching	2								X	X
Expressive language	1						X			
Externalizing behavior	2		X		X					
External morality	1	X								
External personality pattern	1								X	
External validity	1							X		
Extinction	5				X	X		X	X	X
Extinction burst	2		X					X		
Extinction-induced aggression	1		X							
Extinction (classical conditioning)	1	X								
Extinction (operant conditioning)	1	X								

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Extraneous cognitive load	1		X							
Extrinsic incentive	1							X		
Extrinsic motivation	7	X	X		X	X	X		X	X
Extrinsic reinforcers	3				X	X		X		
Face-to-face style	1						X			
Failure-accepting students	1									X
Failure-avoiding students	1									X
Failure syndrome	1						X			
Facilitating anxiety	2				X	X				
Fact	1		X							
Failure to store	1				X					
<i>Fairness</i>	<i>1</i>			X						
Family Educational Rights and Privacy Act (FERPA)	1				X					
Far transfer	2		X				X			
Feedback	3	X	X					X		
Fetal alcohol syndrome	1						X			
Field dependence	3							X	X	X
Field independence	3							X	X	X
First letter strategy	1		X							
First wave constructivism	1									X
Fixation	1						X			
Fixed-interval schedule	1							X		
Fixed-ratio (FR) schedule	1							X		
Flashbulb memory	1							X		
<i>Flexibility</i>	<i>1</i>			X						
Flow	2				X	X				
<i>Fluency</i>	<i>1</i>			X						
Fluency disorder	2		X				X			
Fluid intelligence	2								X	X
Free-recall learning	1							X		
Foreclosure	1							X		
Forethought	1		X							
Forgetting	1	X								
Formal assessments	4			X	X	X			X	

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Formal (mental) discipline	2		X		X					
Formal measurement	1	X								
Formal operational egocentrism	1				X					
Formal operational stage	6	X			X	X	X	X	X	
Formal operations	1									X
Formative assessment	4		X				X		X	X
Formative evaluations	4	X			X	X		X		
Forward chaining	1		X							
Forward-reaching transfer	2						X		X	
Fostering communities of learners (FCL)	2						X			X
Fragile X syndrome	1						X			
Frames	1		X							
Free recall	1								X	
Frequency distribution	5	X	X				X		X	X
Full inclusion	3							X	X	X
Functional analysis	3		X		X	X				
Functional fixedness	2								X	X
Functional value	1		X							
G	1					X				
Gang	2				X	X				
Gender	1		X							
Gender biases	4						X	X	X	X
Gender constancy	1		X							
Gender differences	1								X	
Gender identification	1								X	
Gender identity	1		X							
Gender role identity differences	1	X								
Gender roles	1						X			
Gender-role transcendence	1						X			
Gender schemas	4		X		X	X				X
Gender schema theory	1						X			

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Goodness of fit	1		X							
Grade equivalent	2	X	X							
Grade-equivalent score	6				X	X	X	X	X	X
Grading	1						X			
Grading on the curve	2								X	X
Group alerting	1							X		
Group consequences	1									X
Group consequence system	1								X	
Group contingencies	2				X			X		
Group contingency program	1							X		
Group differences	1				X					
Group discussion	2								X	X
Group factors	1								X	
Group focus	1									X
Group instruction	1								X	
Group investigation	2		X					X		
Group-oriented contingency system	1		X							
Growth needs	3	X	X					X		
Growth portfolio	1						X			
Guided discovery	4	X	X						X	X
Guided discovery learning	1						X			
Guided participation	2				X	X				
Guided practice	1		X							
Guilt	3	X			X	X				
Halo effect	3				X			X		X
Handicap	4	X					X	X		X
Hearing disabilities	1							X		
Hearing impairment	1		X							
Hearing loss	1				X					
Helpless orientation	1						X			
Heritability	1								X	
Heritability coefficient	1								X	
Heteronomous morality	2						X	X		
<i>Heteronomy</i>	<i>1</i>			X						
Heuristics	5	X	X		X	X	X			
Hidden curriculum	1						X			

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Hierarchy of needs	2						X			X
High-collective- efficacy school	1	X								
Higher-level cognitive process	1					X				
Higher-level question	2				X	X				
Higher-level thinking	1				X					
High-road transfer	4		X				X		X	X
High-stakes testing	6	X			X	X	X		X	X
Higher mental functions	1		X							
Hindsight bias	1						X			
Histogram	2						X			X
Home-based reinforcement strategies	1							X		
Holistic scoring	1				X					
Holophrases	1	X								
Homeostasis	1		X							
Homosexuality	1								X	
Horizontal declage	2		X						X	
Hostile aggression	1									X
Hostile attributional bias	2				X	X				
Hostile environment sexual harassment	1						X			
Hot cognition	2				X	X				
Human Biology Middle Grades Curriculum	1						X			
Humanistic perspective	2						X			X
Humanistic psychology	1	X								
Hypermedia	3				X	X		X		
Hypertext	2				X			X		
Hypothesis	1						X			
Hypothesis testing	1								X	
Hypothetico- deductive reasoning	4		X	X			X			X

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Iconic knowledge representation	1		X							
IDEA	1		X							
Identical elements	1		X							
Identity	5	X	X		X	X				X
Identity achievement	5		X				X	X	X	X
Identity diffusion	5		X				X	X	X	X
Identity foreclosure	4		X				X		X	X
Identity moratorium	3		X				X		X	
Identity versus role confusion stage	1								X	
Ill-defined problem	3	X	X		X					
Ill-structured problems	1								X	
Illusion of knowing	2				X	X				
“I” message	5	X	X				X		X	X
Imagery	1	X						X		
Images	2		X							X
Imaginary audiences	3		X		X	X				
Immersion	2	X			X					
Implicit memory	1									X
Implicit theories	1		X							
Importance	1	X								
Impulsive	2						X			X
Impulsivity	1								X	
Inability to retrieve	1				X					
Incentive	5				X	X	X		X	X
Inclusion	4	X	X		X		X			
Incompatible behaviors	2				X	X				
Incremental view of ability	2		X							X
Incremental view of intelligence	4	X			X	X			X	
Incubation	1								X	
Independent group-oriented contingency	1		X							
Independent practice	2		X					X		
Independent variable	1						X			
Individual interest	1		X							
Individualism	1						X			

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Individual constructivism	2				X	X				
Individual differences	1				X					
Individual learning expectation (ILE)	1									X
Individualized Education Program (IEP)	7	X	X		X		X	X	X	X
Individualized instruction	2							X	X	
Individuals with Disabilities Education Act (IDEA)	5				X		X	X	X	X
IDEA '97	1							X		
Induction	2				X	X				
Inductive reasoning	3						X		X	X
Indulgent parenting	1						X			
Industry	1									X
Industry versus inferiority stage	1								X	
Inert knowledge	1							X		
Inferred reality	1							X		
Informal assessments	3				X	X			X	
Informal measurement	1	X								
Information	1		X							
Information literacy	1					X				
Information processing	2	X								X
Information-processing analysis	1		X							
Information processing approach	1						X			
Information-processing theory	3				X	X		X		
Information stores	1	X								
Infused instruction	1								X	
Inhibition	1	X								

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Inhibitory effect	1		X							
Initial-letter strategies	1							X		
Initiative	1									X
Initiative versus guilt stage	1								X	
Inner speech	2				X	X				
Inquiry	1	X								
Inquiry learning	1									X
Inquiry methods	1								X	
Inquiry training	1		X							
In-school suspension	2				X	X				
Insight	1									X
Instructional alignment	2	X	X							
Instructional analogy	1		X							
Instructional conversation	1									X
Instructional games	1							X		
Instructional goal	2				X	X				
Instructional objectives	4				X	X		X		X
Instructional planning	1						X			
Instructional prompt	1		X							
Instructional strategy	1		X							
Instructional technique	1		X							
Instructional validity	1						X			
Instrumental aggression	1									X
Instrumental Enrichment	1							X		
<i>Instrumentality</i>	1			X						
Integrated learning systems	1							X		
Integration	1		X							
Integrity	1									X
Integrity versus despair stage	1								X	
Intellectual needs	1		X							
Intellectual skill	1		X							
Intelligence	7	X			X	X	X	X	X	X

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Intrinsic cognitive load	1		X							
Intrinsic incentive	1							X		
Intrinsic motivation	6	X	X		X		X		X	X
Intrinsic reinforcers	3				X	X		X		
Intrinsic or interest value	2	X								X
Introductory focus	1	X								
Intuitive thinking	1									X
Intuitive thought substage	1						X			
Investment theory of creativity	1								X	
Involvement	1	X								
IQ score	2				X	X				
IRE cycle	1				X					
Irreversibility	1		X							
Item analysis	1				X					
Item difficulty index	2				X		X			
Item discrimination index	2				X		X			
Jigsaw	4		X					X	X	X
Jigsaw classroom	1						X			
Jigsaw technique	1				X					
Jigsaw II	1	X								
Joplin Plan	4	X					X	X	X	
<i>Justice</i>	1			X						
Justice perspective	1						X			
Keyword method	4				X	X		X		X
Keyword strategy	1		X							
Knowledge	1		X							
Knowledge base	2				X	X				
Knowledge construction	1							X		
KWL	2		X							X
Laboratory	1						X			
Laboratory experiment	1							X		
Language	1						X			
Language acquisition devices (LADs)	2	X							X	

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Maintenance bilingual programs	1	X								
Maintenance rehearsal	4		X		X				X	X
Major depression	1								X	
Manifestation determination	1		X							
Manipulative style	1						X			
Market exchange stage	1	X								
Marland report	1								X	
Mapping	1							X		
Massed learning	1								X	
Massed practice	2							X		X
Mastery criterion	1							X		
Mastery experiences	1									X
Mastery grading	1							X		
Mastery goal	5		X		X	X		X		X
Mastery goal orientation	1		X							
Mastery learning	6		X		X	X	X	X		X
Mastery model	1		X							
Mastery orientation	5			X	X	X	X		X	
Mastery-oriented beliefs	1								X	
Mastery-oriented students	1									X
Matching format	1	X								
Matching items	1							X		
Materials	1		X							
Maturation	5	X			X	X			X	X
Mean	7	X	X		X	X	X		X	X
Meaningful learning	3				X	X		X		
Meaningful learning set	1				X					
Meaningfulness	1	X								
Meaningful verbal learning	1									X
Means-ends analysis	5	X					X	X	X	X
Measurement	3	X							X	X
Measures of central tendency	1	X								

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Measures of variability	1						X			
Median	5	X	X				X		X	X
Mediated learning	1							X		
Mediated learning experiences (MLEs)	3				X	X			X	
Melting pot	1									X
Memory	4				X	X	X		X	
Memory span	1						X			
Memory sticks	1							X		
Memory strategies	1		X							
Mental age	3						X	X		X
Mental processes	1						X			
Mental representations	1								X	
Mental retardation	7		X		X	X	X	X	X	X
Mental set	5				X	X	X	X	X	
<i>Mental states</i>	1			X						
Mesosystems	1		X							
Metacognition	8	X	X		X	X	X	X	X	X
Metacognitive processes	1								X	
Metacognitive skills	1							X		
Metacomponents	1		X							
Metalinguistic awareness	2				X					X
Metamemory(ies)	2	X							X	
Method of loci	1		X							
Microgenetic studies	1									X
Microsystems	1		X							
Minimum-competency group	1								X	
Minority group	3							X	X	X
Misbehavior	2				X	X				
Misconception	1				X					
Mnemonic devices	2	X							X	
Mnemonics	5		X		X	X		X		X
Mock participation	1							X		
Modality	1		X							
Mode	5	X	X				X		X	X
Model	4	X	X		X	X				
Modeling	5		X			X		X	X	X

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Multiple-trait scoring	1	X								
Myelination	3				X	X				X
Naïve theory	1				X					
National norms	1	X								
Naturalistic observation	1						X			
Nativist theory	1	X								
Natural categories	1		X							
Natural reinforcers	1		X							
Natural structural schema	1		X							
Nature-nurture issue	1						X			
Nature view of intelligence	1	X								
Near transfer	2		X				X			
Need	1		X							
Need for achievement	1								X	
Need for affiliation	3				X		X		X	
Need for approval	1				X					
Need for power	1								X	
Need for relatedness	1				X					
Negation	1		X							
Negative correlation	3							X	X	X
Negative example	1		X							
Negative instance	1				X					
Negative reinforcement	7	X	X		X	X	X		X	X
Negative reinforcer	1							X		
Negative transfer	4		X		X	X			X	
Neglect	1		X							
Neglected students	3		X		X	X				
Neglectful parenting	1						X			
Network	1	X								
Neuron	2				X	X				
Neurotransmitter	2				X	X				
Neutral stimulus	4				X			X	X	X
New Piagetians	1						X			
Neo Piagetian theories	1		X							
Network theories	1						X			

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
New-Piagetian theories	1									X
<i>Niche</i>	1			X						
Niche-picking	1					X				
No-lose method	1								X	
No Child Left Behind	1		X							
Nominal scales	1		X							
Nongraded elementary school / Joplin plan	1									X
Nongraded programs	2						X	X		
Nonroutine treatments	1		X							
Nonverbal communication	1	X								
Nonverbal cues	1							X		
Norm groups	2		X							X
Normal curve equivalent	2		X					X		
Normal distribution	7	X			X	X	X	X	X	X
Normative scores	1								X	
Norming group	2	X					X			
Norming sample	1									X
Norms	3		X					X	X	
Norm-referenced assessment	1				X					
Norm-referenced grading	2						X			X
Norm-referenced grading system	1								X	
Norm-referenced evaluation	2	X	X							
Norm-referenced interpretations	1							X		
Norm-referenced score	2				X	X				
Norm-referenced testing	3			X					X	X
Norms	1				X					
Note-taking	1							X		
<i>Novice</i>	1			X						

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Numbered heads together	1		X							
<i>Nurturant, resourceful environment</i>	1			X						
Nurture view of intelligence	1	X								
Objective testing	3						X		X	X
Objectives	1	X								
Object permanence	5	X	X					X	X	X
Objectivity	1		X							
Observational learning	4		X				X	X		X
Observational learning effect	1				X					
Observational technique	1		X							
Observed score	1								X	
Off-set style	1						X			
Open-ended questions	1	X								
Open/free discovery	1		X							
Open schools	1								X	
Operant conditioning	8	X	X		X	X	X	X	X	X
Operants	2								X	X
Operational definition	1		X							
Operations	2		X							X
Oppositional identity	1		X							
Ordinal scales	1		X							
Organization	5		X		X	X	X			X
Organization (essential teaching skill)	1	X								
Organization (information processing theory)	1	X								
Organization (Piaget's developmental theory)	1	X								
Orienting response	1		X							
Orienting stimulus	1		X							

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Orienting tasks	1		X							
<i>Originality</i>	1			X						
Orthopedic impairment	2		X				X			
Other health impairment	1		X							
Outcome expectations	1		X							
Outlining	1							X		
Over-generalization	3	X			X					X
Overconfidence	1								X	
Overconfidence bias	1						X			
Overcorrection	1		X							
Overextension errors	1								X	
Overlapping	4		X					X	X	X
Overlearning	1									X
Overregularization	1								X	
Overt aggression	1									X
Overt strategy	1					X				
Paired-associate learning	1							X		
Paired-associates recall	1								X	
Paper-pencil assessment	1				X	X				
Parallel distributed processing model	2							X	X	
Parallel play	1							X		
Paraphrase rule	2								X	X
Part learning	1									X
Partial hearing impairment	1	X								
Partial reinforcement	1								X	
Participant observation	2						X			X
Participation structures	1									X
Passive style	1						X			
Pedagogical content knowledge	3	X			X		X			
Pedagogy	1							X		
Peer mediation	2				X	X				
Peer pressure	2				X	X				

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Peer tutoring	4			X	X	X		X		
Peers	1							X		
Peg-type mnemonics	1									X
Pegword method	1							X		
Pens in the middle	1		X							
People-first language	1				X					
Perceived task difficulty	1		X							
Percentage grading	1									X
Percentage grading system	1								X	
Percentile bands	1	X								
Percentile rank	4	X			X	X				X
Percentile rank score	1						X			
Percentile score	3		X					X	X	
Perception	4	X	X					X		X
Performance analysis	1		X							
Performance approach goals	3		X		X	X				
Performance assessment	5	X			X	X	X	X		
Performance avoidance goals	3		X		X	X				
Performance components	1		X							
Performance criteria	1						X			
Performance goal	7	X	X		X	X		X	X	X
Performance-based assessments	1		X							
Performance-focused environments	1	X								
Performance orientation	1						X			
Performance-oriented belief	1								X	
Permissive classroom management style	1						X			
Permissive parenting	1					X				

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Positive reinforcement	7	X	X		X	X	X		X	X
Positive transfer	4		X		X	X			X	
Postconventional level of morality	2		X					X		
Postconventional morality	3				X	X			X	
Postconventional reasoning	1						X			
Post-formal thinking	1								X	
Potency	1	X								
PQ4R	3							X	X	X
Practicality	2				X	X				
Pragmatics	3				X		X			X
Precise terminology	1	X								
<i>Precocity</i>	<i>1</i>			X						
Preconventional level of morality	1							X		
Preconventional morality	3				X	X			X	
Preconventional reasoning	1						X			
Predictive evidence	1							X		
Predictive validity	5	X	X		X		X		X	
Prejudice	2						X			X
Prejudice reduction	1							X		
Premack principle	7	X	X		X		X	X	X	X
Preoperational	1									X
Preoperational egocentrism	1				X					
Preoperational stage	7	X	X		X	X	X	X	X	
<i>Proximodistal principle</i>	<i>1</i>			X						
Presentation punishment	7	X	X		X	X		X	X	X
Pretest	1									X
Primacy effect	1							X		
Primary reinforcer	4				X	X		X	X	
Priming	1									X
Principle	4		X					X	X	X
Prior knowledge activation	2				X	X				

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Private speech	4	X			X			X		X
Proactive aggression	3	X			X	X				
Proactive facilitation	1							X		
Proactive inhibition	1							X		
Proactive interference	1								X	
Problem	2	X								X
Problem-based learning	5	X	X			X	X			X
Problem finding	1								X	
Problem isomorphs	1								X	
Problem set	1						X			
Problem solving	5		X			X	X	X		X
Problem solving assessment	1							X		
Problem solving program	1							X		
Problem space	1		X							
Procedural analysis	1		X							
Procedural knowledge	6	X	X		X	X			X	X
Procedural memory	3						X	X		X
Procedural rule learning	1		X							
Proceduralization	1		X							
Procedures	3	X							X	X
Process goal	1				X					
Process-outcome research	1		X							
Process produce studies	1							X		
Product goal	1				X					
Productions	3		X						X	X
Production systems	1		X							
Productive learning environment	1	X								
Program evaluation research	1						X			
Programmed instruction	1								X	
Programmed learning	1		X							
Project	1		X							

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlflk
Qualitative data	1		X							
Quantitative data	1		X							
Questioning frequency	1	X								
Quid pro quo sexual harassment	1						X			
Race	2							X		X
Random	1									X
Random assignment	3	X					X	X		
Random processes	1								X	
Randomized field experiment	1							X		
Range	5	X	X				X		X	X
Rapport talk	1						X			
Rating scales	2	X			X					
Ratio scales	1		X							
Ratio schedule	2								X	X
Raw scores	5	X			X	X	X		X	
READS	1									X
Reaction range	1								X	
Reactive aggression	2				X	X				
Reactive effect	1		X							
Readiness tests	2							X	X	
Readiness training	1							X		
Reading disabilities	1								X	
Reading recovery	1							X		
Real-world task (authentic task)	1	X								
Reasoning	1								X	
Recall tasks	2				X				X	
Recency effect	1							X		
Receptive language	1						X			
Reciprocal causation	2				X	X				
Reciprocal determinism	2		X							X
Reciprocal questioning	2	X								X
Reciprocal teaching	8		X	X	X	X	X	X	X	X
<i>Reciprocity</i>	1			X						
Recitation	1								X	
Recognition tasks	2				X				X	
Reconstruction	1									X
Reconstruction error	2				X	X				

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Recursive thinking	1					X				
Reflective	1									X
Reflective teaching	1	X								
Reflective thinking	1								X	
Reflectivity	2							X	X	
Reflexes	1							X		
Regrouping	2							X	X	
Regular education initiative	1									X
Rehearsal	6	X			X	X	X	X	X	
Reinforcement	6	X	X		X	X	X			X
Reinforcement potency	1		X							
Reinforcement schedules	1	X								
Reinforcer	6	X			X	X		X	X	X
Rejected students	3		X		X	X				
Relatedness	3	X		X		X				
Relational aggression	3				X	X				X
Relative grading standard	1							X		
Reliability	8	X	X		X	X	X	X	X	X
Reliability coefficient	1				X					
Removal punishment	7	X	X		X	X		X	X	X
Report talk	1						X			
Representational thought	1								X	
Representativeness heuristic	2						X		X	
Reprimands	1									X
Research	1	X								
Resilience	1	X								
Resistance culture	1									X
Resistant attachment	1								X	
Resilient children	1		X							
Resilient self-efficacy	2				X	X				
Resilient students	2				X	X				
Respondents	1									X
Response	4		X		X	X				X
Response cost	6		X		X	X	X		X	X

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Response disinhibition effect	1				X					
Response facilitation	1		X							
Response set	1									X
Restitutorial overcorrection	1		X							
Restructuring	1									X
Retrieval	6	X	X		X	X			X	X
Retrieval cues	3				X	X			X	
Retrieval failure	1					X				
Retroactive facilitation	1							X		
Retroactive inhibition	1							X		
Retroactive interference	1								X	
Reversibility	3	X						X		X
Reversible thinking	2								X	X
Review	1	X								
Revise option	1									X
Reward	1									X
Ripple effect	1									X
Rote learning	4				X	X		X	X	
Rote memorization	1									X
Routine treatments	1		X							
Rubric	3	X			X	X				
Rule-example-rule	1							X		
Rules	3	X							X	X
Safety needs	1		X							
Satiation	4	X	X						X	X
Scaffolding	8	X	X		X	X	X	X	X	X
Scales	1		X							
Scatter plot	1		X							
Schedule of reinforcement	4		X				X	X	X	
Schema-driven problem solving	1									X
Schema (s) (ta)	8	X	X		X	X	X	X	X	X
Schema theory	2						X	X		
Schemes	6	X	X		X	X		X		X
Scholastic aptitude test	1				X					
School readiness test	1				X					

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Schools for thought	1						X			
Scientific method	1						X			
Scientific research	1						X			
Scientific theories	1		X							
Scope of a theory	1		X							
Scoring rubric	2		X							X
Scoring	1		X							
Script	7	X	X		X	X	X		X	X
Scripted cooperation	3	X			X					X
Seatwork	3							X	X	X
Second-order relations	1								X	
Second wave constructivism	1									X
Secondary reinforcer	4				X	X		X	X	
Section 504	1									X
Secure attachment	1								X	
Seizure disorders	1								X	
Selected-response items	2						X	X		
Selection	1		X							
Selective perception processes	1		X							
Self	1								X	
Self-actualization	5		X				X	X	X	X
Self-concept	6	X	X		X			X	X	X
Self-concept of ability	1		X							
Self-determination	5	X			X	X			X	X
Self-efficacy	7	X	X		X	X	X		X	X
Self-esteem	7	X	X		X		X	X	X	X
Self-evaluation	3		X		X	X				
Self-explanation	1				X					
Self-fulfilling prophecy	4	X			X	X				X
Self-handicapping	2				X	X				
Self-imposed contingency	2				X	X				
Self-instruction	4				X	X			X	X
Self-instructional methods	1						X			
Self-instructional programs	1		X							

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Sensory memory	3	X					X			X
Sensory register	5		X		X	X		X	X	
Serial learning	1							X		
Serial-position curve	1								X	
Serial-position effect	2						X			X
Serial recall	1								X	
Seriation	5	X	X				X	X		X
Service learning	2						X			X
Setting events	2		X		X					
Severe and multiple disabilities	1				X					
Sex differences	1								X	
Sexism	1						X			
Sex-role behavior	1							X		
Sexual abuse	1		X							
Sexual development	1								X	
Shame	3	X			X	X				
Shaping	7	X	X		X	X	X	X		X
Shared understanding	1	X								
Short answer item	1						X			
Short essay item	1							X		
Short-term memory	5				X		X	X	X	X
Signals	1		X							
Sign systems	1							X		
Simulation software	1							X		
Single-case experiment	1							X		
Single-subject experimental studies	1									X
Situated cognition	3		X		X		X			
Situated learning	3	X							X	X
Situated learning and cognition	1					X				
Situated motivation	2				X	X				
Situational attributions	1								X	
Situational interests	3		X		X	X				
Skew	1		X							
Skill analysis	1		X							
Skinner box	1							X		
Slow-to-warm-up child	1						X			

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Socioeconomic status (SES)	7	X			X	X	X	X	X	X
Sociolinguistics	1									X
Software-realized scaffolding	1		X							
Solitary play	1							X		
Spasticity	1									X
Spatial/semantic organizers	1		X							
Special education	4	X	X					X	X	
Specific aptitude test	1				X					
Specific expectations	1		X							
Specific exploration	1		X							
Specific transfer	4	X	X		X	X				
Speech and communication disorders	1				X					
Speech and language disorders	1						X			
Speech disorder	3	X						X		X
Spiral curriculum	2		X							X
Spilt-half reliability	2		X				X			
Spontaneous recovery	1								X	
Spreading activation	1								X	
Spread of activation	1		X							
Spreadsheets	1							X		
Stability	1		X							
Stage of concrete operations	1		X							
Stage of formal operations	1		X							
Stage theory	2				X	X				
Stand-alone programs	1								X	
Stand-alone thinking skills programs	1									X
Standard deviation	8	X	X		X	X	X	X	X	X
Standard English	2				X	X				
Standard error of measure	4	X			X				X	X
Standardization	3		X		X	X				

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlflk
Standardized tests	8	X	X		X	X	X	X	X	X
Standards	3	X			X	X				
Standards-based education	1	X								
Standards-based tests	1						X			
Standard scores	6	X			X	X	X		X	X
Standard speech	1									X
Stanine scores	8	X	X		X	X	X	X	X	X
State	1		X							
State anxiety	1				X					
Static assessment environment	1								X	
Statistically significant	2								X	X
Stem	3							X	X	X
Stereotype	2				X					X
Stereotype threat	4				X	X	X			X
Stimulus	5		X		X	X		X		X
Stimulus control	1									X
Stimulus discrimination	1								X	
Stimulus generalization	1								X	
Storage	2				X	X				
Story grammar	1									X
Strange situation	1								X	
Strategies	1	X								
Strategy construction	1						X			
Structural schema	1		X							
Student-centered approach	1								X	
Student groupwork	1								X	
Students placed at risk	1	X								
Students who are gifted and talented	1	X								
Student Teams-Achievement Divisions (STAD)	4	X	X					X	X	
Students at risk	3				X	X		X		
Students with special needs	1				X					

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Study strategies	1	X								
Subculture	2				X	X				
Subgoalng	1						X			
Subjectivity	1		X							
Subjects	3		X						X	X
Subjective tests	1								X	
Subtractive bilingualism	1								X	
Success for all	1							X		
Successive approximations	3		X						X	X
Success-referenced evaluation	1		X							
Summarizing	2	X						X		
Summative assessment	5		X	X			X		X	X
Summative evaluations	4	X			X	X		X		
Superimposed meaningful structure	2				X	X				
Supporting tools	1		X							
Sustaining expectation effect	1									X
Syllogisms	1								X	
Symbolic function substage	1						X			
Symbolic knowledge representations	1		X							
Symbolic models	3		X		X	X				
Symbolic play	1		X							
Symbolic representations	2		X						X	
Symbolic thought	1				X					
Sympathy	2				X	X				
Synapses	3				X	X				X
Synaptic pruning	2				X	X				
Synaptogenesis	2				X	X				
Syntax	4				X		X		X	X
Syntheses	1								X	
Systematic desensitization	1						X			
Systematic observations	1	X								

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Systematic reasoning	1	X								
T Score	2		X							X
Table of specifications	5	X	X		X	X		X		
Tacit knowledge	1									X
Tangible reinforcer	1		X							
Target error	1		X							
Task analysis	7	X	X		X	X	X	X		X
Task comprehension	1	X								
Task-involved learners	1									X
Task-mastery goals	1								X	
Task value	1		X							
Taxonomy	3						X		X	X
Taxonomy of educational objectives	1							X		
Temporal string	1		X							
Test anxiety	1	X								
Test-retest reliability	1		X							
Teacher-as-researcher	1						X			
Teacher-centered teaching	1								X	
Teacher-developed assessment instrument	1				X					
Teacher-directed instruction	2				X	X				
Teacher efficacy	1							X		
Teaching efficacy	1									X
Teaching objectives	1							X		
Teaching portfolio	1									X
Telegraphic speech	1								X	
Temperament	3				X	X	X			
Temporal contiguity	1								X	
Terminal behavior	1				X					
Test anxiety	2				X	X				
Test bank	1				X					
Test bias	1								X	
Test-retest reliability	1						X			
Testwiseness	2				X	X				
Tetrahedral model	1		X							

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Text schema	1		X							
Theory	8	X	X		X	X	X	X	X	X
Theory of mind	3			X	X	X				
Theory of mental self government	1								X	
Theory of multiple intelligences	2								X	X
Theory of primary mental abilities	1								X	
Theses	1								X	
Think-aloud protocols	1								X	
Thinking	1						X			
Thinking styles	1								X	
Think-pair-share	1		X							
Threat	2				X	X				
Time on task	4				X	X		X		X
Time out	8		X	X	X	X	X	X	X	X
Timing error	1		X							
Title I	1							X		
Token	1		X							
Token economy	2				X	X				
Token reinforcement system	3		X						X	X
Top-down processing	2		X							X
Total-point systems	1								X	
Total task presentation	1		X							
Total-time hypothesis	1								X	
Traditional assessment	1				X					
Tracking	3	X							X	X
Tracks	1							X		
Trait	1		X							
Trait anxiety	1				X					
Trait theory (of motivation)	1				X					
Transactional strategy instructional approach	1						X			
Transfer	7	X	X		X	X	X		X	X

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Transfer appropriate processing	1		X							
Transformation	1	X								
Transfer of learning	1							X		
Transitional bilingual programs	1	X								
Transition programming	1									X
Transitional signals	1	X								
Transitivity	2						X	X		
Traumatic brain injury	1		X							
Treatment	1							X		
Treatment group	2				X	X				
Trial and error strategy	1								X	
Triarchic theory of human intelligence	1								X	
Triarchic theory of intelligence	2						X			X
True-false format	1	X								
True-false items	1							X		
True score	4	X			X				X	X
Trust versus mistrust stage	1								X	
Tutorial programs	1							X		
T-score	3	X					X		X	
Ubiquitous computing	1						X			
Unconditional positive regard	1	X								
Unconditioned response (UR)	6	X	X		X			X	X	X
Unconditioned stimulus (US)	6	X	X		X			X	X	X
Uncorrelated variables	1							X		
Underconfidence	1								X	
Underextension errors	1								X	
Under-generalization	3	X			X					X
Uninvolved parenting	1					X				

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Universal design	1									X
Universal design for learning	1		X							
Universal principles stage	1	X								
Universals (in development)	2				X	X				
Unstructured discovery	1								X	
Untracking	2							X		X
Utility value	3	X	X							X
Validity	8	X	X		X	X	X	X	X	X
Validity coefficient	1				X					
Value	2				X	X				
Values clarification	1						X			
Variable	1							X		
Variable-interval schedule	1							X		
Variable-ratio schedule	1							X		
Variability	1									X
Variance	2		X						X	
Verbal comprehension	1								X	
Verbal directions	1		X							
Verbal information	1		X							
Verbal learning	1							X		
Verbal mediator	2				X	X				
Verbal reprimands	3		X	X	X					
Verbalization	1									X
Vicarious consequences	1		X							
Vicarious experiences	1									X
Vicarious learning	3	X	X					X		
Vicarious punishment	2				X	X				
Vicarious reinforcement	4				X	X			X	X
Videodisks	1							X		
Vision loss	1							X		
Visual disability	1	X								
Visual imagery	2				X	X				

Words	#	E,K	F,M	J,P	Orm 1	Orm 2	Sntk	Slvn	S,W	Wlfk
Working forward	1								X	
Working-memory model	1								X	
World Wide Web	1						X			
“You” messages	1						X			
Zero reject principle	1		X							
Zone of proximal development	8	X	X		X	X	X	X	X	X
Z-score	8	X	X		X	X	X	X	X	X