

Formative Assessment: A Pragmatic Approach

Ruben R. Puentedura, Ph.D.

Black and Wiliam: Defining Formative Assessment

“Practice in a classroom is formative to the extent that evidence about student achievement is elicited, interpreted, and used by teachers, learners, or their peers, to make decisions about the next steps in instruction that are likely to be better, or better founded, than the decisions they would have taken in the absence of the evidence that was elicited.”

Wiliam: A Framework for Formative Assessment

	Where the learner is going	Where the learner is right now	How to get there
Teacher	1 Clarifying learning intentions and criteria for success	2 Engineering effective classroom discussions and other learning tasks that elicit evidence of student understanding	3 Providing feedback that moves learners forward
Peer	Understanding and sharing learning intentions and criteria for success	4 Activating students as instructional resources for one another	
Learner	Understanding learning intentions and criteria for success	5 Activating students as the owners of their own learning	

Clarifying, Sharing, and Understanding Learning Intentions and Criteria for Success

- Rubric Design:
 - Three key components in presenting learning intentions and success criteria to students:
 - WALT: we are learning to
 - WILF: what I'm looking for
 - TIB: this is because
 - Make explicit progressions within rubrics, and progressions across rubrics
 - Provide examples of work for rubric items

Traditional Rubric Design

	Advanced	Proficient	Basic	Below Basic
Topic	Topic is clear	Topic is generally clear	Topic is vague	Topic is unclear
Focus	Demonstrates focus on topic	Minor lapses in focus on topic	Major lapses in focus on topic	Fails to demonstrate focus on topic
...

	Advanced	Proficient	Basic	Below Basic
Pretty noises	Has multiple pretty noises	Has only one pretty noise	No pretty noises	Bad, bad, ugly noises
Photos	Lots of colorful photos	One colorful photo	No colorful photos	Ugly, drab photos
(Oh yeah, we'll get to why they created this - eventually...)

Example: A Rubric for Concept Maps

(Shuman *et al.*, 2004)

	<i>1</i>	<i>2</i>	<i>3</i>
<i>Comprehensiveness</i> – covering completely/broadly	The map lacks subject definition; the knowledge is very simple and/or limited. Limited breadth of concepts (i.e. minimal coverage of coursework, little or no mention of employment, and/or lifelong learning). The map barely covers some of the qualities of the subject area.	The map has adequate subject definition but knowledge is limited in some areas (i.e., much of the coursework is mentioned but one or two of the main aspects are missing). Map suggests a somewhat narrow understanding of the subject matter.	The map completely defines the subject area. The content lacks no more than one extension area (i.e., most of the relevant extension areas including lifelong learning, employment, people, etc. are mentioned).
<i>Organization</i> – to arrange by systematic planning and united effort	The map is arranged with concepts only linearly connected. There are few (or no) connections within/between the branches. Concepts are not well integrated.	The map has adequate organization with some within/between branch connections. Some, but not complete, integration of branches is apparent. A few feedback loops may exist.	The map is well organized with concept integration and the use of feedback loops. Sophisticated branch structure and connectivity.
<i>Correctness</i> - conforming to or agreeing with fact, logic, or known truth	The map is naïve and contains misconceptions about the subject area; inappropriate words or terms are used. The map documents an inaccurate understanding of certain subject matter.	The map has few subject matter inaccuracies; most links are correct. There may be a few spelling and grammatical errors.	The map integrates concepts properly and reflects an accurate understanding of subject matter meaning little or no misconceptions, spelling/grammatical errors.

Example: A Rubric for Sociology Online Discussion (Evans, 2010)

	4 Points	2 Point	0 Points
Content	You show that you can apply or extend the idea you are discussing.	Some of your messages analyze, interpret, or apply the material well, but some do not. This might either be because the analysis was not done well, or because it was not attempted (that is, was simply opinion or hearsay).	Your messages generally show little evidence of analysis, consisting instead of opinion, feelings and impressions.
Accuracy	You accurately represent the concepts discussed.	You generally represent the concepts accurately, but you do not do so in all cases.	You have significant issues with regard to accurately representing the concepts.
Use of material	You use and cite sources, including the text and articles and/or bring in an outside source, all of which clearly add <i>significantly</i> to the discussion.	You clearly refer back to a definition, example or concept from the reading or lecture.	You do not bring in or refer to any material from the text, outside sources, or lectures.
Sociological Analysis	You focus on the sociological implications of the issue at hand (e.g., social meaning, the outcomes for society or groups, the social function served).	You touch on some sociological issues, but focus also on individual ones.	You focus primarily on individual issues.
	2 Points	1 Point	0 Points
Responses	You extend or politely question the post of another person in a way that advances the discussion.	You add new examples that continue the idea created by another person.	Your responses are primarily agreement.
Participation	You write at least three or more substantive comments (using the above criteria) based on the discussion assigned.		You write fewer than three substantive comments.
Time of Posting	Your posts are spread widely during the discussion.	You post at two significantly different times.	Your posts are clustered within a short period of time.
Posts Read	You have read at least 75% of the posts in the discussion.	You read at least 50% of the posts in the discussion.	You read less than 50% of the posts in the discussion.
Clarity	You use standard grammar and spelling and your meaning is clear.	Your posts have some grammar or spelling mistakes or your meaning is not entirely clear.	Your posts have significant grammar or spelling mistakes or your meaning is not clear.

Example: A Rubric for Sociology Online Discussion (Evans, 2015)

The previous nine item rubric was simplified down to the following six items:

- **Group A (0-6 points):**
 - Content
 - Sociological Thought
 - Use of Material
- **Group B (0-2 points):**
 - Number of Posts
 - Time of Posting
 - Writing

Designing Rubrics

- Separate out rubric into semantic and syntactic components
- Decide the relative weight of semantic vs. syntactic components
- Decide which are your minor activities and tasks, and which are major ones
- Keep minor activities to no more than 3 rubric items, and major activities to no more than 6 rubric items
- Consider using binary rubric items, which indicate presence/absence of a key component

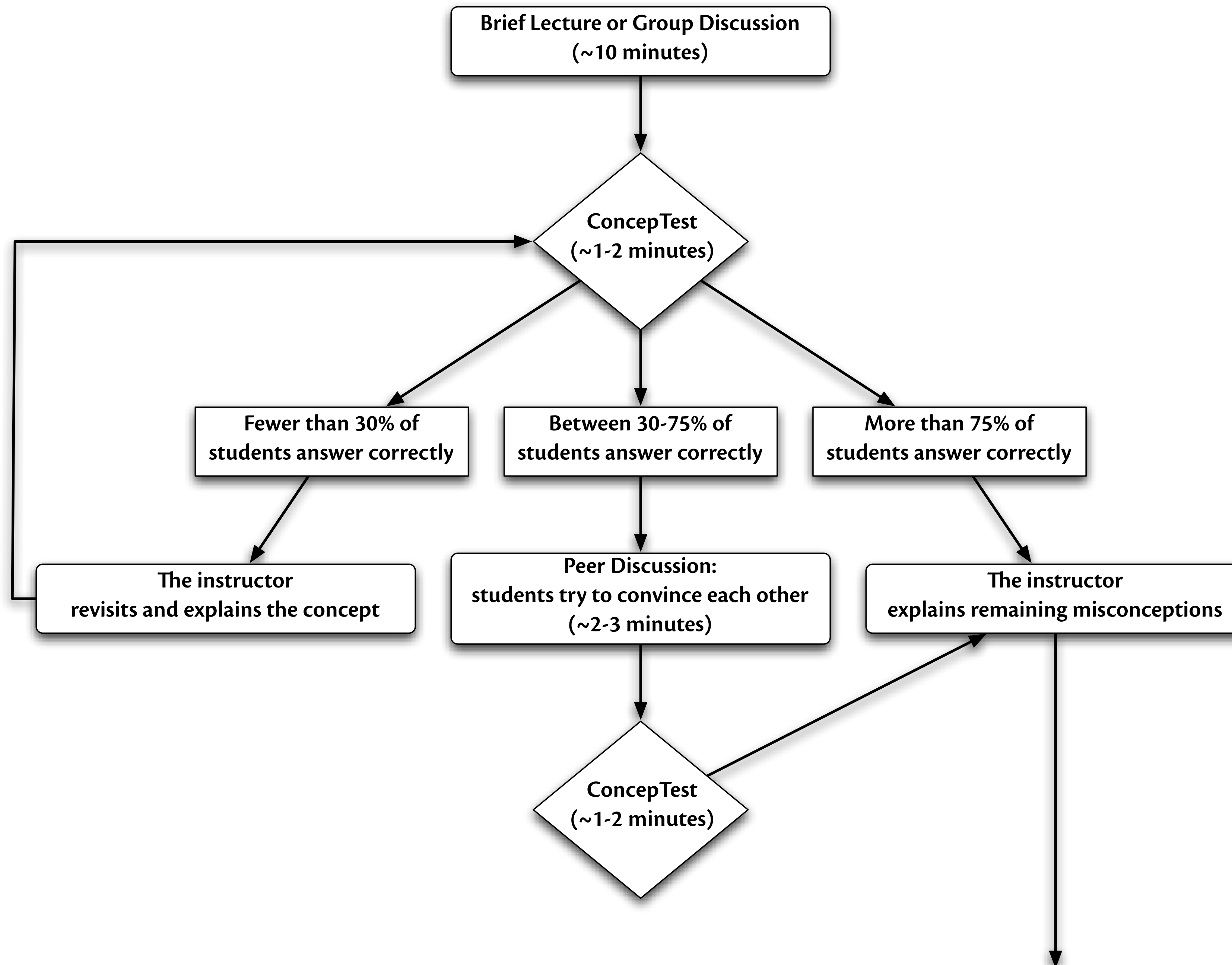
Designing Rubrics - An Example Skeleton

Minor Activity	Low	Mid	High
Semantic Item	0	2	4
Syntactic Item	0	1	2
Binary Item (either semantic or syntactic)	0		1

Major Activity	Low	Mid	High
Semantic Item A	0	4	6
Semantic Item B	0	4	6
Semantic Binary Item	0		4
Syntactic Item A	0	1	2
Syntactic Item B	0	1	2
Syntactic Binary Item	0		1

Eliciting Evidence of Learners' Achievement in the Classroom

- Asking questions in class:
 - Chosen to act as a discussion/thinking trigger
 - Should provide info for varying instruction on the fly and in the long term
- Examples:
 - ConcepTest
 - POE (Predict-Observe-Explain)
 - TPS (Think-Pair-Share)
 - Virtual Whiteboard



Redefinition

Tech allows for the creation of new tasks, previously inconceivable

Modification

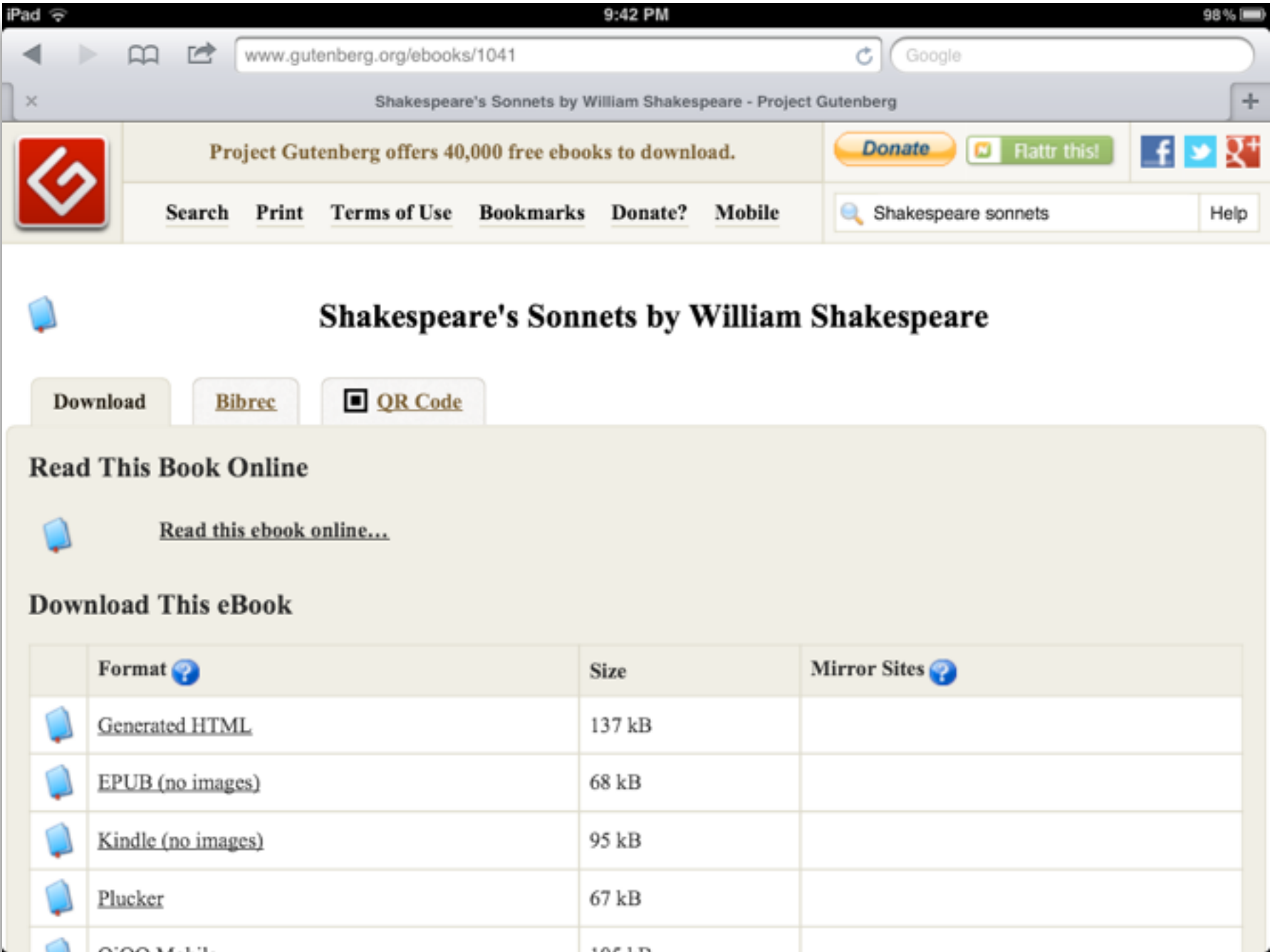
Tech allows for significant task redesign

Augmentation

Tech acts as a direct tool substitute, with functional improvement

Substitution

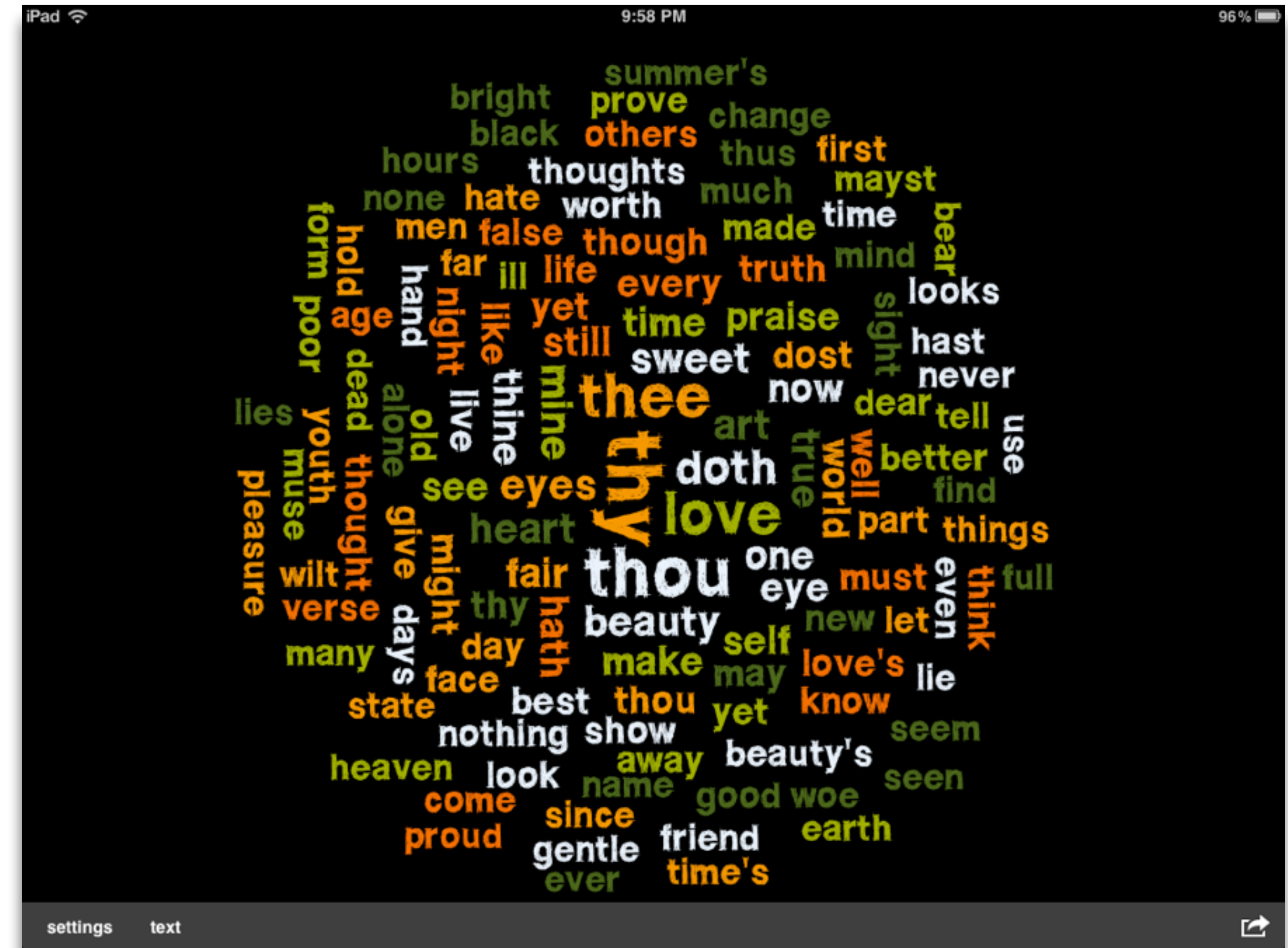
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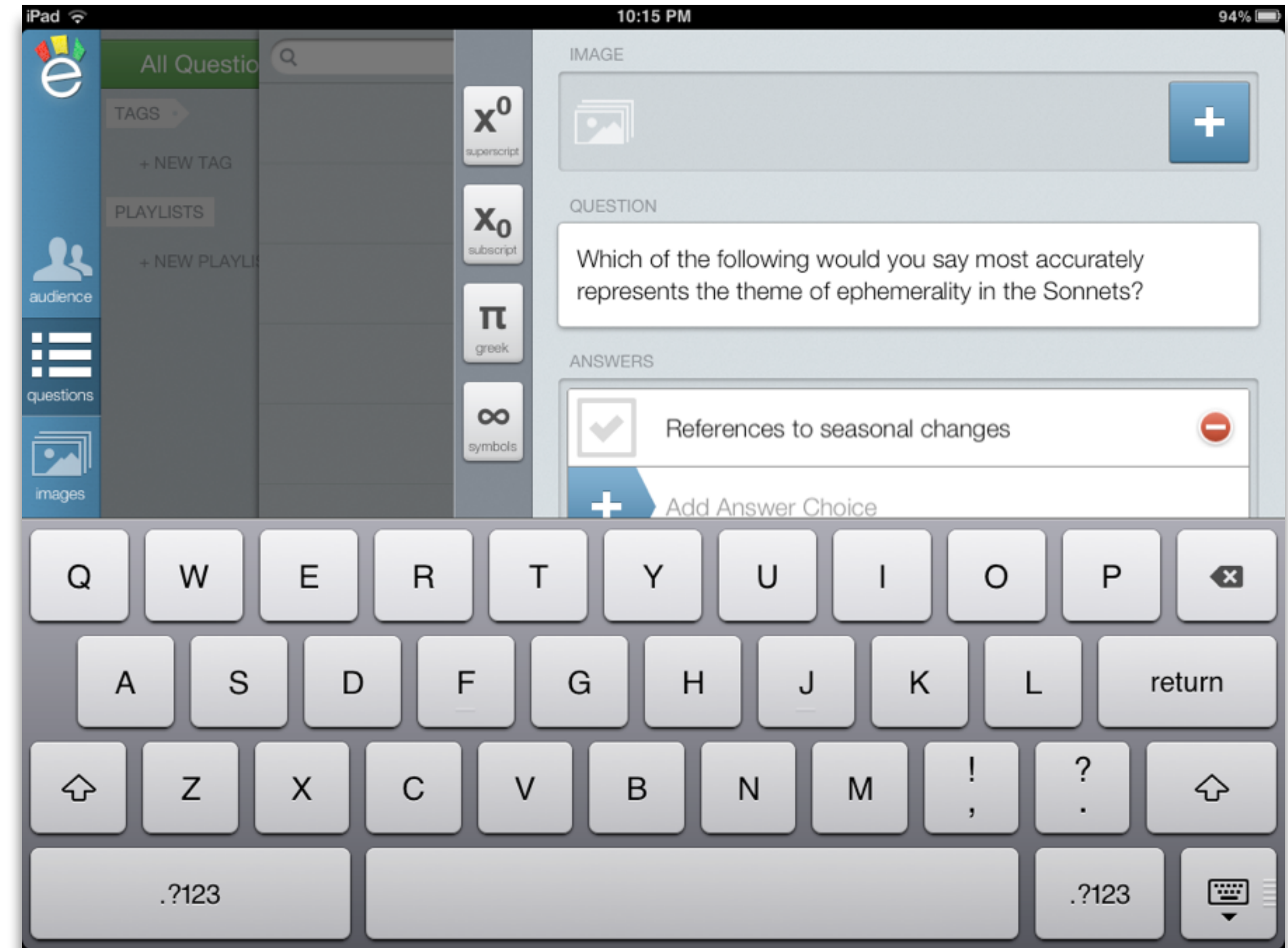
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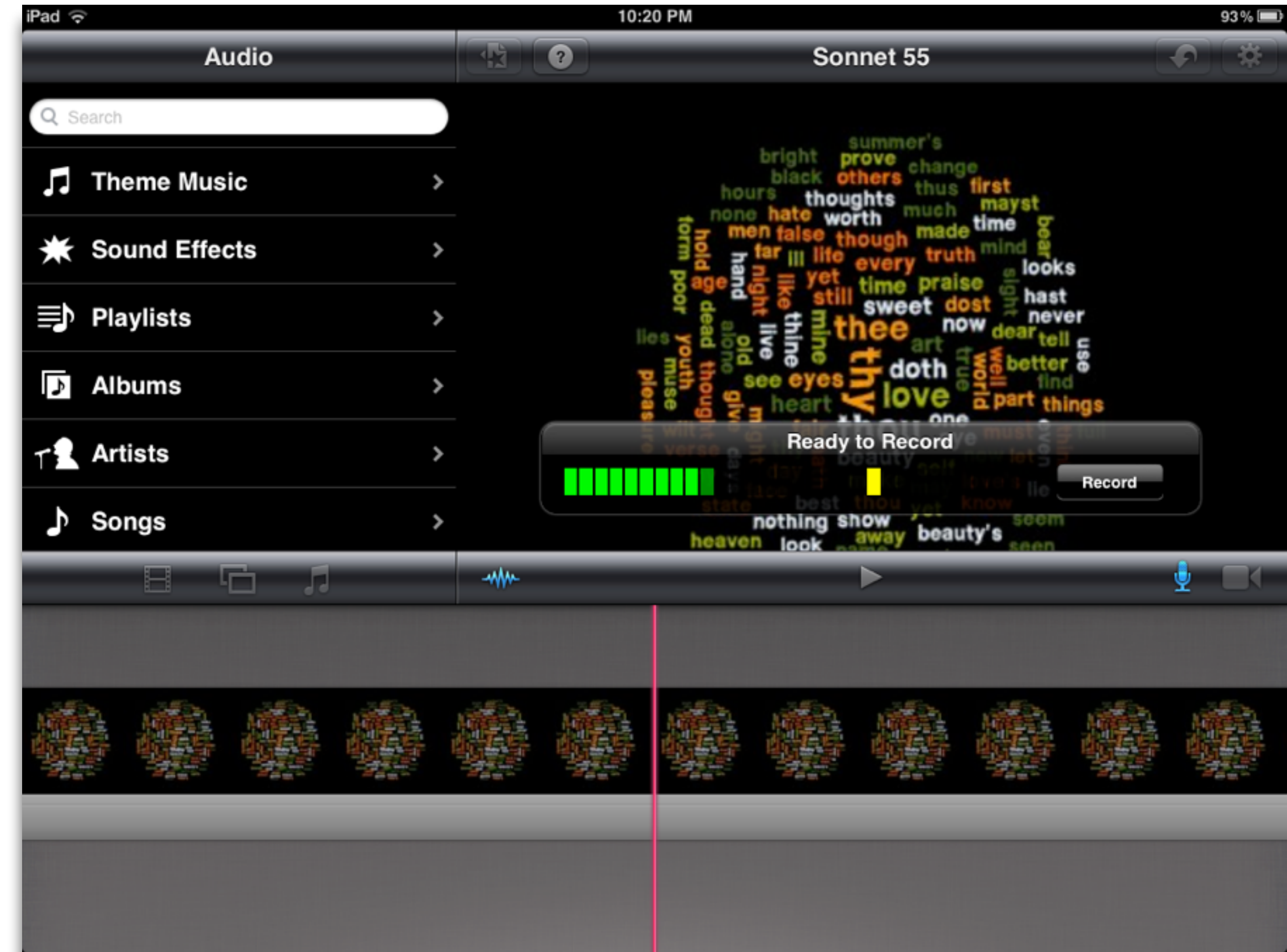
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Providing Feedback that Moves Learners Forward

- The feedback process must provide a recipe for future action
- Feedback should:
 - Relate explicitly to goals/rubrics
 - Be more work for the recipient than the donor, i.e., not just right/wrong – make them think about what did not work
 - Be focused: less is more
- How:
 - Scores or praise alone do not provide this; comments do
 - Supplying minimal scaffolded responses (i.e., where the student got stuck) >> supplying a full response to the problem
 - This emphasizes the crucial role of the draft object and process
 - Oral feedback >> written feedback
 - Consider using recordings
 - Provide time for students to use this feedback

Activating Students as Instructional Resources for One Another

- Two key elements:
 - Group goals
 - Individual accountability
- Reciprocal help only works when it takes the form of elaborated explanations:
 - Not simple answers or procedures
 - Looks to the upper levels of Bloom for both participants
- Reciprocal help is more effective (by a factor of up to 4) if the product being assessed is the result of the aggregate of individual contributions, rather than just one group product

Activating Students as Owners of their Own Learning

- Effective self-assessment is up to twice as effective as other-assessment
- Two key components:
 - Metacognition
 - Motivation
- The role of the draft process and object resurfaces as a crucial component here
- Important Tools:
 - Learning logs and journals
 - Learning portfolios

Hippasus



Blog: <http://hippasus.com/blog/>

Email: rubenrp@hippasus.com

Twitter: @rubenrp

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