Design Document for
Developing Instruction

By Kurt Schwartz

Purpose of the Course	The purpose of this course is to provide training on how to develop instruction about concepts.
Audience Description	The main audience is writers who develop instruction for primary and middle school grades for students in various countries in Africa. They also write for schools in India. The second audience is the instructional design department, which oversees quality of the writers.
Major Course Objectives (Terminal)	Trainees will be able to develop instruction about concepts by using 5 out of the 5 principles and guidelines of Direct Instruction's general case programing.
Course Enabling Objectives	• Trainees will be able to identify non-comparatives concepts. • Trainees will be able to distinguish specific types of non-comparatives concepts from other types • Trainees will be able to identify methods for teaching non-comparatives concepts. • Trainees will be able to perform methods for teaching non-comparatives concepts.
RLO Enabling Objective	• Trainees will be able to identify non-comparatives concepts. • Trainees will be able to distinguish specific types of non-comparatives concepts from other types
Learning Assessment for Course	The formal assessment will be primarily a recall task. A few other questions will pertain to circumstances of use.
Learning Assessment for RLO	Recognition tasks of which concepts to select for teaching. Guided application practices in which the trainee must select appropriate to concept classicfication.
Instructional Delivery method for Course (overall)	Online

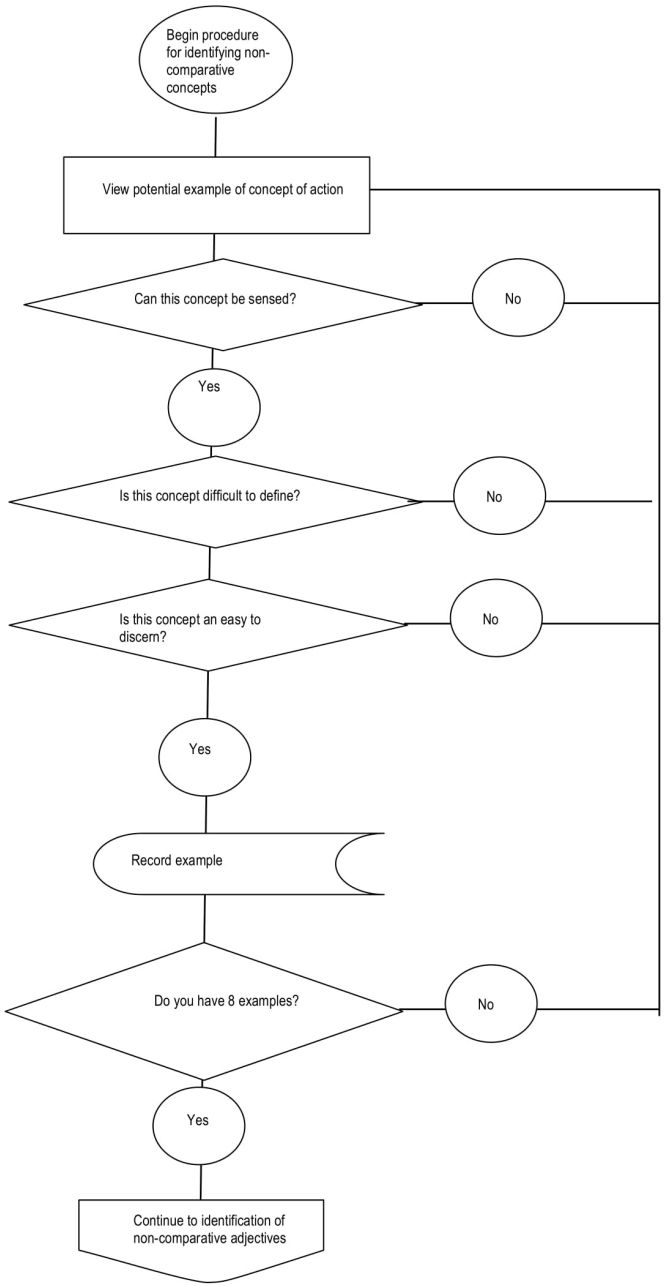
Instructional Strategy for RLO	The instructional strategy is a blend of the Morrison et al. (2019) recommendation for teaching rules and the Engelmann recommendation for teaching correlated feature relationships or 'rules' (Carnine and Engelmann, 1991). The Morrison et al. (2019) recommendation consists of two sections: presentation and assessment. The presentation consists of a deductive order of 'RUL-EG' or 'rule-example' sequence (Morrison et al., 2019) This is correlated with generative strategies, such as organizing information and elaboration with images. Organization occurs with design: 'rules' are bold and big while 'examples' are plain and small. The assessment is divided into recall and application. The recall is more abstract and thus delivered at the end of the lesson in the knowledge check. The application was based on Engelmann's recommendations. Engelmann's recommendations are similar to the Morrison et al. (2019 except that Engelmann recommends inductive and deductive presentation simultaneously for 'rules'. This aspect was extended after the initial presentation. The reason for this was because the concepts that were the target of instruction are difficult to define. That is, the rule of rule is too abstract. Engelmann's influence enters as the presentation transitions into application. I used guidelines for his presentation of examples: 3 positives that are maximally different and 2 negatives that relate to the positives minimally different (Carnine and Engelmann, 1991). Thereafter, examples are tested in a drop-and-drag performance. This type of performance was intentional and a generative strategy that Reigeluth (1999) recommends.
Media	The media are audio recordings of content and images that exemplify the content. These audio recordings are self-recorded, which explains the different types of concepts. The images are basic everyday actions, descriptions and positions. These come from the Articulate Storyline library. For example, one concept is 'above'. For this concept, I found an image of a man jumping above a mountain.
508 Accommodations	Structure accommodations: titles for every page, directions for every task, purpose for every section, paging, menus, index, table of contents, hypertext links, autoscanning, search function. Image accommodations: modal enlargements, ALT text with text descriptions. Audio accommodations: captions, notes for screen readers.. Style accommodations: high contrast between text and background, large text, proximity, rule of thirds Script accommodations: Built in long-descr, content is accessible without javascript
Course Structure Description	There are 15 modules. There are six lessons in the present module. The developed lesson has three main parts: introduction, instruction and assessment. Within the introduction is the 'connect' component. The instruction contains the 'absorb' as well as 'practice' tasks. The assessment contains test items about the content. In addition to these, there is a prior knowledge check. Incorrect responses get redirected to a separate page of the previous lesson. This provides a little context to the course of study.
Seat Time of Course	4 hours / 15 weeks

Seat Time of RLO	Approximately 6 minutes

RLO Task Analysis	Learning Contingency Analysis by Gropper I) Identification of Behavioral Components A) Identify non-comparative concepts B) Identify positional type C) Identify adjective type D) Identify action type II) Relationship of Behavioral Components A) Non-comparative superordinate element of positional, adjective and action types B) Positional, adjective action types have a coordinate relationship II) Sequence of Instruction A) Discrimination learning prerequisite, and therefore will be assessed prior to start of lesson B) Purpose/reasons for teaching non-comparatives are more complex and thus will be taught last. III) Aspects of Practice A) 6 lessons; B) Presentation Mode: Words and Pictures; C) Sensory Modality: Visual; D) Degree of prompting: On screen directions; E) Content type: classroom contextual content; F) Frequency: 3 times for positive examples IV) Learning Requirements A) Learning Type: discrimination, generalization (interpolation, extrapolation), association; B) Learning difficulties: stipulative definitions non-comparatives C) Performance requirement: recognition to recall; D) Performance mode: Recall task V) Learning Contingency Analysis A) Step 1: Identify the Tasks i) Identify non-comparatives; ii) Identify types of non-comparatives; iii) Distinguish types non-comparatives of example; iv) Identify frequency of teaching types B) Step 2: Identify the specific behaviors i) View; ii) Notice the features; iii) Identify the features and nonfeatures; iv) Make a rule; v) Notice the essential features and essential nonfeatures; vi) Make a rule; vii) Test the rule; viii) Revise the rule C) Step 3: Determine the Sequential Dependencies i) Must apply test of non-comparative type; ii) Append non-comparative type definition; D) Step 4: Sequence the behaviors i) Review concept of teach by example; ii) define non-comparative concept; iii) label non-comparative types; iv) label non-comparative examples; v) explain frequency of type; E) Step 5: Plan instructional progressions i) Determine if non-comparative ii) determine non-comparative type; iii) select non-comparative; F) Step 6: Analyze the criterion behavior i) Discrimination; ii) Generalization G) Step 7: Select alternative instructional approaches i) Methods for rule; ii) Methods for routine H) Step 8: Adjust for individual differences

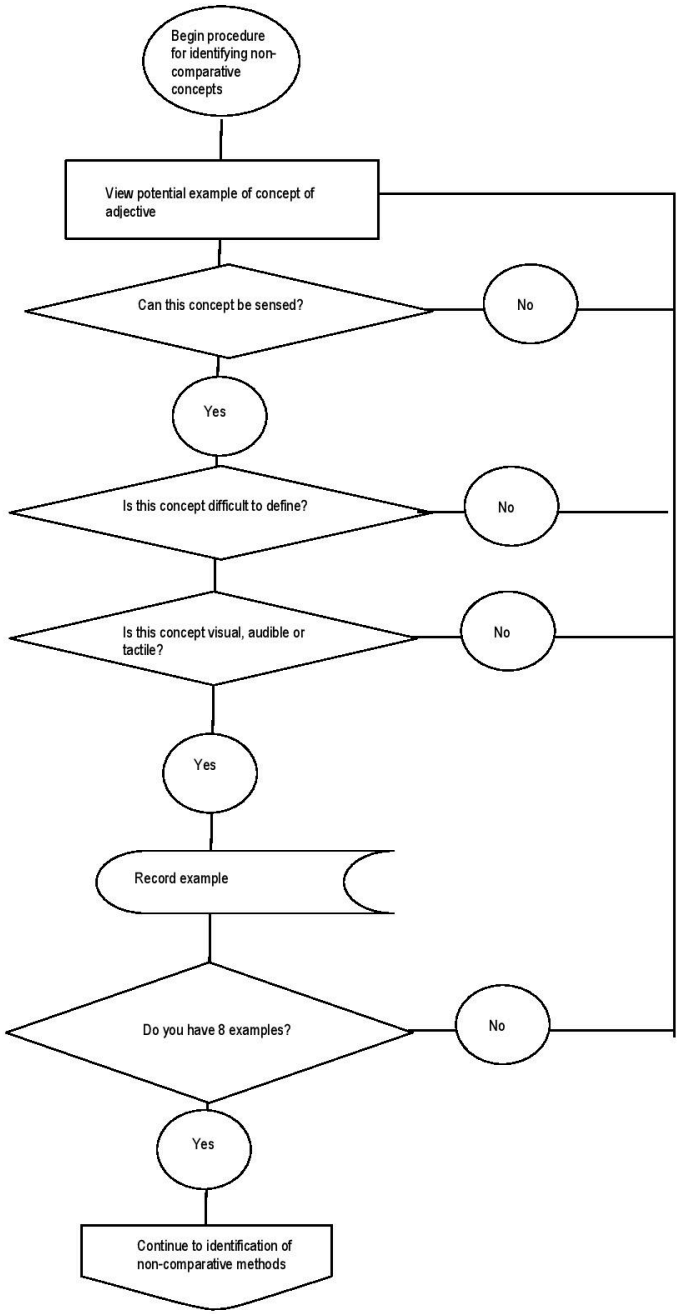
RLO Performance Task Flow Chart 1

1. Description
    - This flow chart describes the process of the trainee selecting a non-comparative concept.
2. Task
    - Locating an 'action' type non-comparative concept.
3. Purpose
    - To collect teaching materials for concepts.
4. Rational
    - Trainees have to prepared to encounter a wide area of content. Each content has its own specific way of teaching. The organization of this content is based on the theories of Siegfried Engelmann.



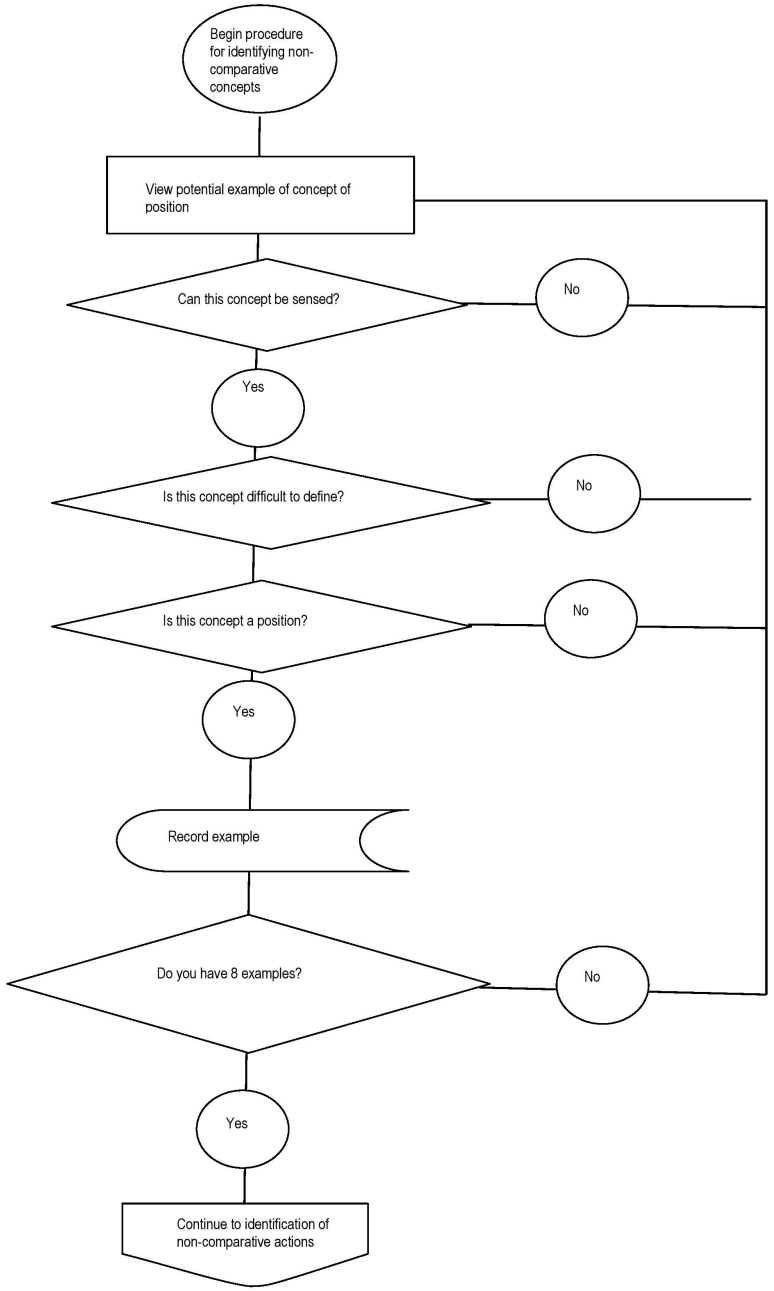
RLO Performance Task Flow Chart 2

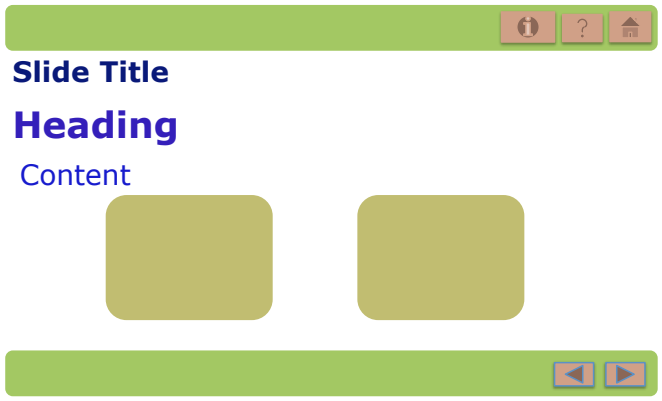
1. Description
    - This flow chart describes the process of the trainee selecting a non-comparative concept.
2. Task
    - Locating an 'adjective' type non-comparative concept.
3. Purpose
    - To collect teaching materials for concepts.
4. Rational
    - Trainees have to prepared to encounter a wide area of content. Each content has its own specific way of teaching. The organization of this content is based on the theories of Siegfried Engelmann.



RLO Performance Task Flow Chart 3

1. Description
    - This flow chart describes the process of the trainee selecting a non-comparative concept.
2. Task
    - Locating a 'positional' type non-comparative concept.
3. Purpose
    - To collect teaching materials for concepts.
4. Rational
    - Trainees have to prepared to encounter a wide area of content. Each content has its own specific way of teaching. The organization of this content is based on the theories of Siegfried Engelmann.



Screens/Pages in RLO	34 slides
Knowledge Checks or Other Assessments or Practices for RLO	____Dichotomous (T/F, Y/N, etc.) 1__Multiple Choice 5__ Multiple Select 2_Drag and Drop ____Custom – *TBD* ____Other – describe
Rollovers/click events	__2 Rollovers __1__Click Events
RLO Navigation	The RLO will have two main navigation functions. One is a 'home' button, which is located on the top-right corner of every slide. This 'home' button returns users to table of lessons in the module. The second navigation is the a three bar 'hamburger' favicon. This navigation allows users to select any slide they wish.
Screen Layouts for RLO	Screen Layout 1  Screen Layout 2 

Development Tools for RLO	Articulate Storyline 360, Adobe Photoshop, Audacity
Ownership	Kurt will develop the initial course, and, Kurt will maintain the course. The course is being developed for a private, low-cost international school system.
Development Time of RLO	80 hours
Support requirements for RLO and course	Engelmann, Siegfried and Carnine, Douglas (1991) *A Theory of Instruction: Principles and Applications.* Eugene, O.R.: NIFDI Press. Engelmann, Siegfried and Colvin, Geoff (2006) *Rubric of Identifying Authentic Direct Instruction Program.* S. Engelmann. Jonassen, D., Tessmer, M., Hannum, W. (1999) *Task Analysis Methods for Instructional Design*. Mahwah, N.J.: Lawrence Erlbaum Associates. Morrison, G. R., Ross, S. M., Morrison, J. R., & Kalman, H. K. (2019). *Designing Effective Instruction*. Hoboken, NJ: Wiley. Reigeluth, Charles and Carr-Chellman, Alison. (edited by) (1999) *Instructional Design Theories and Models, Vol. 3: Building Common Knowledge Base.* Hillsdale, NJ: Erlbaum Associates. Steely, Don and Steely, Deborah (2013) *A Guide to Direct Instruction.* Smashwords Edition. Watkins, Cathy and Slocum, Timothy (2003) The Components of Direct Instruction. *The Journal of Direct Instruction*. Summer pp. 75-110.
Project Sign-off [optional]	Please sign below indicating agreement with the proposed course plan and approving start-up of the storyboard and development phases.
	_____ Instructional Designer Date
	_____ Project Manager/Sponsor Date