Task-Based Activity Development

Developing Task-based, Authentic Learning Activities for OALCF Paths

Part One

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Part 1 Agenda

- What is a task?
- Tasks vs. skill building activities
- Introduction to LCIG

Adapted from '<u>Developing Work-Related Learning Materials</u>'. SkillPlan BC 2007 Essential Skills Workshop", Jane Tuer and Through the Worker's Eyes, 2009

What is a task?*

A task-based learning activity or **task set** is a set of questions that replicate **an authentic experience** that the learner will have in any one of five paths: employment, secondary credits, independence, post-secondary and apprenticeship.

The emphasis is on authenticity (situation, conditions and document) and the **use of integrated skills** to accomplish the task set. It is similar to a demonstration of learning – an integrated opportunity to demonstrate learning progress.

Task Set

We will use the term "task set" through out this webinar session.

Task Sets:

- 3 + questions associated with the same authentic document.
- Each question or "task" is independent of one another
- One answer does not affect the others
- Begins with the easiest question and builds in complexity
- •Scaffolds or bridges learners from less complexity to more, therefore building their confidence, skills and application of learning

"Pretend you are . . ."

Just to be clear ...

Authentically-based tasks do not involve pretending or artificial situations.

It is a conscious effort to replicate a realistic context for a learning activity.

Tasks vs Skills Development

Tasks focus on the application of integrated skills to answer the questions. It is an opportunity to demonstrate learning in an authentic way.

For example, questions based on replicating tasks on the job using authentic workplace documents - "Room rates are net charges. What additional charges are there?"

Skills development activities focus on discrete skills and are usually not based on authentic situations. It allows for skill practice and enhancement.

For example, spelling tests or tables of multiplication questions

Level the Task!

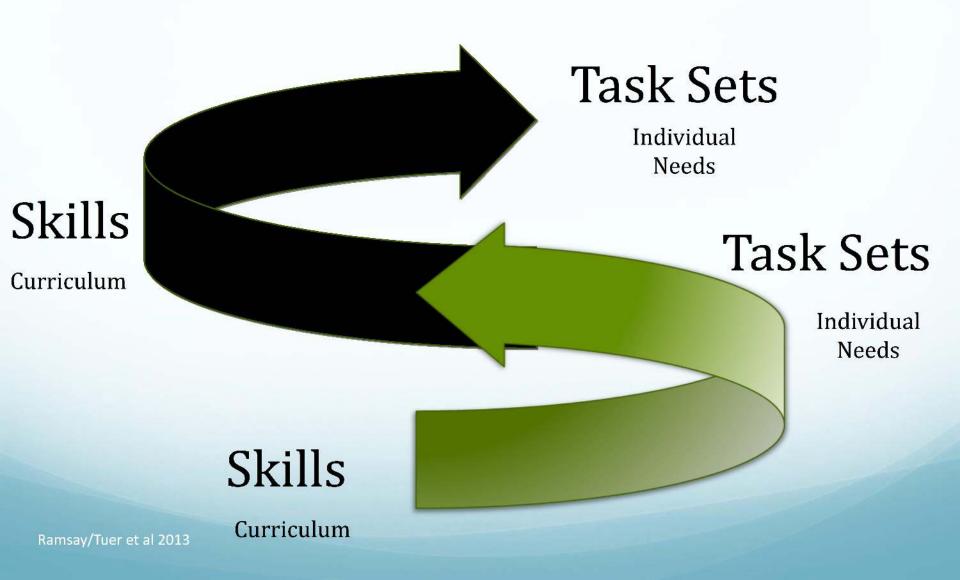
Key Rule of Thumb:

Level the Task not the document

Tasks have levels and competencies and skill domains ascribed to them.

Authentic documents do not.

Spiral of Learning



What makes a task complex?

Overview of Literacy Tasks Complexity Factors

Structural Complexity (Materials)

- Readability of Prose
- Document complexity
 - a. Number of labels
 - b. Number of specific items

Complexity of Process (Strategies)

- Prose and Document
 - a. Type of information requested
 - b. Type of match
 - c. Plausibility of distractors

Overview of Numeracy Tasks Complexity Factors

Quantitative

- a. Operation specificity
- b. Type of calculation

Type of arithmetic operation in order of complexity:

- Single addition (easiest)
- Single subtraction
- Single multiplication
- Single division
- Combination of two or more operations

What is an employment task?

At the workplace, a worker's job is to complete a series of tasks. The worker may enter information on a form, locate information in a manual or check dates and times on as schedule. The tasks you develop should replicate these kinds of worker tasks.

To check if your task has a worker focus, ask yourself:

Does the worker do this on the job?

Source: Developing Work-related Learning Materials by SkillPlan, BC

Why use work-related activities for those in the Employment/Apprenticeship Pathway?

- Workers usually have a purpose for reading on the job
- Workers do activities throughout the day and often use materials/documents to complete them
- Work-related activities in a learning program simulate tasks that workers do on the job
- Allow learners to build and practice skills

What are academic tasks?

Academic tasks more closely resemble skills-based learning activities since the setting is the development of specific, academic skills. They are like the assignments and tests given in classroom situations.

Tasks that replicate post-secondary and secondary school credit (SSC) assignments and learning activities.

Post-secondary education (PSE) usually has a mix of traditional academic learning activities and employment tasks. PSE prepares people for specific jobs or industry sectors.

SSC involves mostly academic learning activities for the accomplishment of curriculum outcomes for specific credit courses.

What are independence tasks?

Tasks taken from "real life" situations and relevant to the variety of roles that an individual has in their life. E.g. parent, caregiver, community volunteer, patient, coach, mentor, religious community member, etc.

A wide range of possibilities involving various authentic documents. E.g. rental agreement, medial forms, school newsletters, newspapers, agency brochures, travel documents, etc.

Three steps to take for developing pathway-focused learning activities

- 1. Collect documents related to pathway
- 2. Develop pathway-focused learning activities
- 3. Decide on an instructional focus

Three parts of a learning activity

- 1. Tasks or questions
- 2. Document Authentic Work-Related Materials
- 3. Instructional Focus purpose for learning

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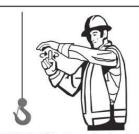
| Action required | Description | Example |
|-----------------|--|---|
| Locate | Find the info requested in the activity (OALCF 1) | What is the price of one bag of oranges or locate the ace of hearts? |
| Cycle | Repeat the same search or a similar search several times (OALCF 2) | List the names and file numbers of customers who paid by credit card or locate 4 aces. |
| Integrate | Compare and contrast info from 2 or more different sources (OALCF 3) | Compare the 2 lists. Which type of brush is better for painting on metal surfaces or locate and order all the clubs from Ace to King? |
| Generate | Take info from 2 or more sources, including background info or inference | Explain why sales have decreased since the beginning of the month or locate the highest 3 hands for most popular card games. |

Task:

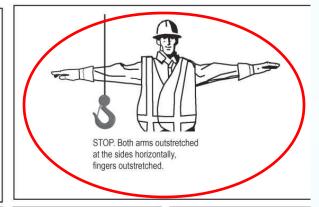
Circle the hand signal for STOP.

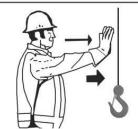
Level One - locate

Standard hand signals for controlling crane operations - crawler, locomotive and truck cranes

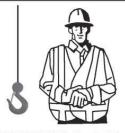


MOVE SLOWLY. Use one hand to give any motion signal and place other hand motionless in front of hand giving the motion signal. (Hoist slowly shown as example).





TRAVEL. Arm extended forward, hand open and slightly raised, make pushing motion in direction of travel.



DOG EVERYTHING. Clasp hands in front of body.



TRAVEL. (Both Tracks). Use both fists in front of body, making a circular motion about each other, indicating direction of travel; forward or backward (For crawler cranes only.)



TRAVEL. (One Track). Lock the track on side indicated by raised fist. Travel oppsite track in direction indicated by circular motion of other fist, rotated vertically in front of body. (For crawler cranes only.)



EXTEND BOOM. (Telescoping Booms). Both fists in front of body with thumbs pointing outward. One hand signal may be used.



RETRACT BOOM. (Telescoping Booms). Both fists in front of body with thumbs pointing toward each other. One hand signal may be used.

Task:

Which levels of apprenticeship are considered probationary?

Level Two - cycle

Duties of an Indentured Apprentice:

- To keep the Coordinator informed of change of his/her address and telephone number.
- B. To perform to the best of his/her ability while;
 - 1. Attending in-school Technical Training.
 - Employed by a Boilermaker Contractor, either in the Field or Shop.
- C. To familiarize him/herself with and faithfully abide by the "Rules and Regulations" governing Apprentices indentured to the Boilermaker ATAC.

*See Appendix 1

- To familiarize him/herself with the following documents:
 - The International Boilermaker Constitution
 - 2. The Local Lodge By-laws
 - The Contract(s) between the Local Lodge and the Employer(s)

Scheduled In-School Technical Training:

- (A) Each Apprentice shall be required to attend classes in related supplemental instructions as scheduled during their Apprenticeship.
- (B) In case of failure on the part of any Apprentices to fulfil their obligations in respect to school attendance or deportment, the Committee shall have the authority to recommend to ITAC that they suspend or revoke their Agreement or to notify the Union of the violation for disciplinary action. The Apprentice hereby agrees to abide by such determination.
- (C) The hours attended during a scheduled inschool technical training period will (upon successful completion) be applied immediately to the Apprentice's hour bank.



Probationary Period:

- (A) The first 2000 hours of the term of the 6000 hour Apprenticeship shall be a probationary period.
- (B) Employer and Journeypersons (by means of reports), shall carefully observe and report the actions of the Apprentice during this trial period in order to determine the advisability of their continuing in the Trade. If the Apprentice fails to apply themselves, seems unable or unwilling to adapt themselves to trade conditions, or otherwise is found to be unsuited to the Trade, they shall be removed from the Apprenticeship before the expiration of the probationary period.
- (C) During this probationary period, annulment of the Apprenticeship Agreement will be made by the Committee upon request of either party to the Agreement, with due notice given to the
 - Registration Agency of such action. The Registration Agency also shall be notified of all cancellations and completions.

Apprentice Wage Scale:

(A) Apprentices will be paid wages according to their hour bank accumulation. Increases in their wages will take place at each 1000 hour milestone as per the Collective Agreement they are currently working under.

0000-1000 Hour Level 1

Probationary Period

2000-3000 Hour Level 3

3000-4000 Hour Level 4 4000-5000 Hour Level 5

5000-6000 Hour Level 6

- (B) Apprentices who receive credit for previous experience in the Trade shall be paid, upon acceptance by the Committee, the wage rate of the period to which such credit advances them.
- (C) Apprentices who fail a period of Technical Training or for any other reason as deemed valid by the Committee, will have their wage frozen at their current rate until further notice.

ee. Reprinted wth permission. Boilermaker Lodge 359 Apprenticeship & Trade Advancement

What is the similarity between the tail length of a standard 6 to 8 strand wire rope and a Rotation Resistant wire rope?

Assembly Safety

- Use only with standard 6 to 8 strand wire rope of designated size. For intermediate size rope, use next larger size socket. For example: When using 9/16" diameter wire rope use a 5/8" size Wedge Socket Assembly. Welding of the tail on standard wire rope is not recommended. The tail length of the dead end should be a minimum of 6 rope diameters but not less than 6".
- To use with <u>Rotation Resistant wire rope</u> (special wire rope constructions with 8 or more outer strands) ensure that the dead end is welded, brazed or seized before inserting the wire rope into the wedge socket to prevent core slippage or loss of rope lay. The tail length of the dead end should be a minimum of 20 rope diameters but not less than 6". (See Figure 1)

Level Three - integrate

WEDGE SOCKET WARNING AND APPLICATION INSTRUCTIONS



S-421 US-422

Important Safety Information – Read and Follow

Inspection/Maintenance Safety

- Always inspect socket, wedge and pin before using.
- · Do not use part showing cracks.
- Do not use modified or substitute parts.
- Repair minor nicks or gouges to socket or pin by lightly grinding until surfaces are smooth. Do not reduce original dimension more than 10%, DO not repair by welding.
- Inspect permanent assemblies annually, or more often in severe operating conditions.
- Do not mix and match wedges or pins between models or sizes.
- Always select the wedge and socket for the wire rope size.

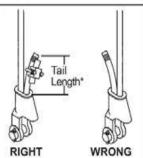
Assembly Safety

Use only with standard 6 to 8 strand wire rope of designated size. For intermediate size rope, use next larger size socket. For example: When using 9/16" diameter wire rope use a 5/8" size Wedge Socket Assembly. Welding of the tail on standard wire rope is not recommended. The tail length of the dead end should be a minimum of 6 rope diameters but not less than 6".

- Align live end of rope, with center line of pin. (See Figure 1)
- Secure dead end section of rope. (See Figure 1)
- DO NOT ATTACH DEAD END TO LIVE END. (see Figure 2)
- Use hammer to seat Wedge and Rope as deep into socket as possible before applying first load.
- To use with Rotation Resistant wire rope (special wire rope constructions with 8 or more outer strands) ensure that the dead end is welded, brazed or seized before inserting the wire rope into the wedge socket to prevent core slippage or loss of rope lay. The tail length of the dead end should be a minimum of 20 rope diameters but not less than

▲ WARNING

- Loads may slip or fall if the Wedge Socket is not properly installed.
- A falling load can seriously injure or kill.
- Read and understand these instructions before installing the Wedge Socket.
- Do not side load the Wedge Sockets.
- Do not interchange Crosby wedge socket, wedge or pin with non Crosby wedge socket, wedge or pin.
- Apply first load to fully seat the Wedge and Wire Rope in the socket. This load should be of equal or greater weight than the loads expected in use.
- Do not interchange wedges between S-421 and US-422 or between sizes.



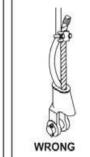


Figure 2

*Tail Length
Standard 6 to 8 strand wire rope
A minimum of 6 rope diameters.

A minimum of 6 rope diameters, but not less than 6". (i.e. – For 1" rope: Tail Length = 1" x 6 = 6")

Rotation Resistant Wire Rope

A minimum of 20 rope diameters, but not less than 6") (i.e. – For 1" rope: Tail Length = 1" x 20 = 20")

Figure 1

Operating Safety

- Apply first load to fully seat the Wedge and Wire Rope in the socket. This load should be of equal or greater weight than loads expected in use.
- Efficiency rating of the Wedge Socket termination is based upon the catalog breaking strength of Wire Rope. The efficiency of properly assembled Wedge Socket is 80%.
- During use, do not strike the dead end section with any other elements of the rigging (Called twoblocking).