Buenas tardes y saludos desde Toronto, Canadá. Gracias por invitarme a su conferencia.

Gracias a mis traductores por traducir mi presentación al español.

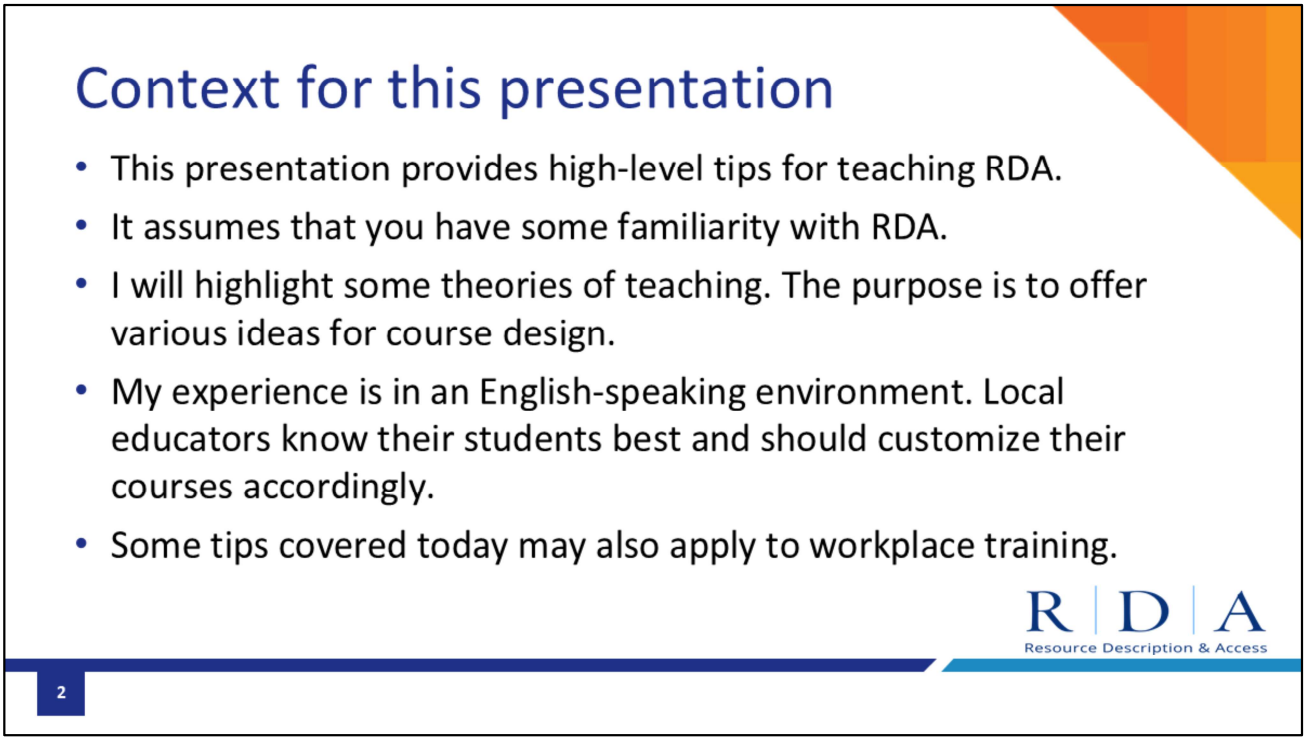
Hello, and thank you so for inviting me to present on the topic of "Teaching RDA".

My name is Elisa Sze. I serve on the RDA Steering Committee as the Education and Orientation Officer.

In my regular job, I work at the University of Toronto Libraries as a metadata librarian. I am currently Acting Co-Head of the Metadata Services department. Additionally, I teach a cataloguing course for the Master of Information program at the University of Toronto, Faculty of Information.

This presentation is informed by my experience with teaching and training. It also reflects conversations that I have had with cataloguing educators and trainers.

I welcome your questions at the end of this presentation. I also encourage you to share your own insights regarding teaching.



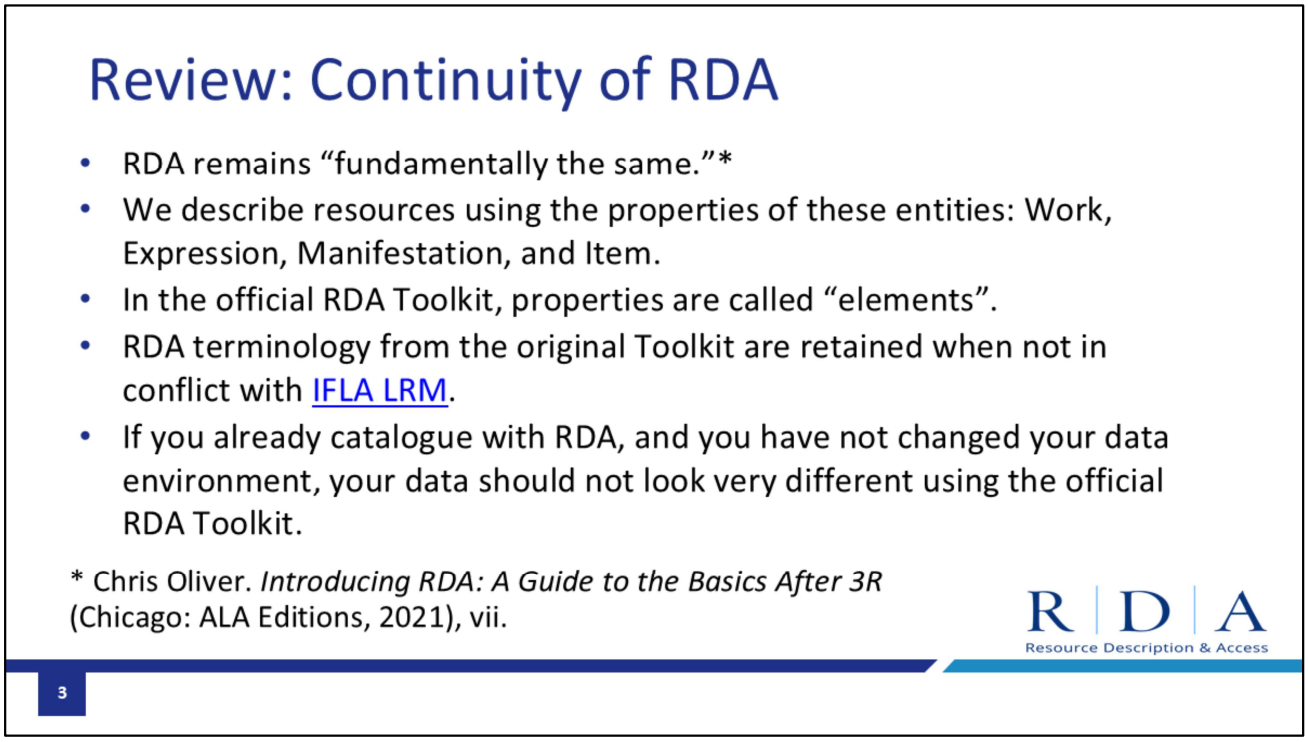
The context for this presentation is to provide high-level tips for teaching RDA.

This presentation assumes that you are familiar with RDA, even if you are not yet using the Official RDA Toolkit.

I will highlight some theories of teaching. The purpose is to offer various ideas for course design.

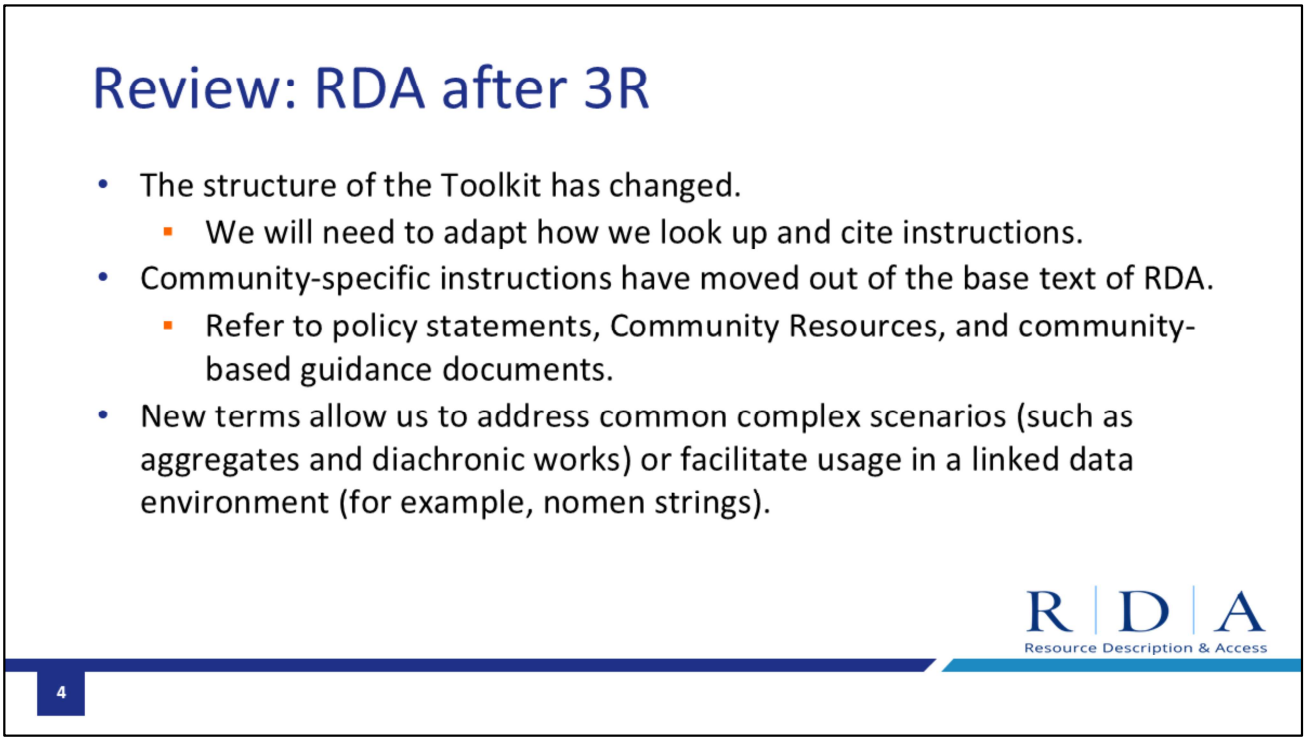
My experience is in an English-speaking environment. Local educators know their audiences best and should customize their courses accordingly.

Finally, my primary focus today is on teaching in an educational setting, but some tips may also apply to workplace training.



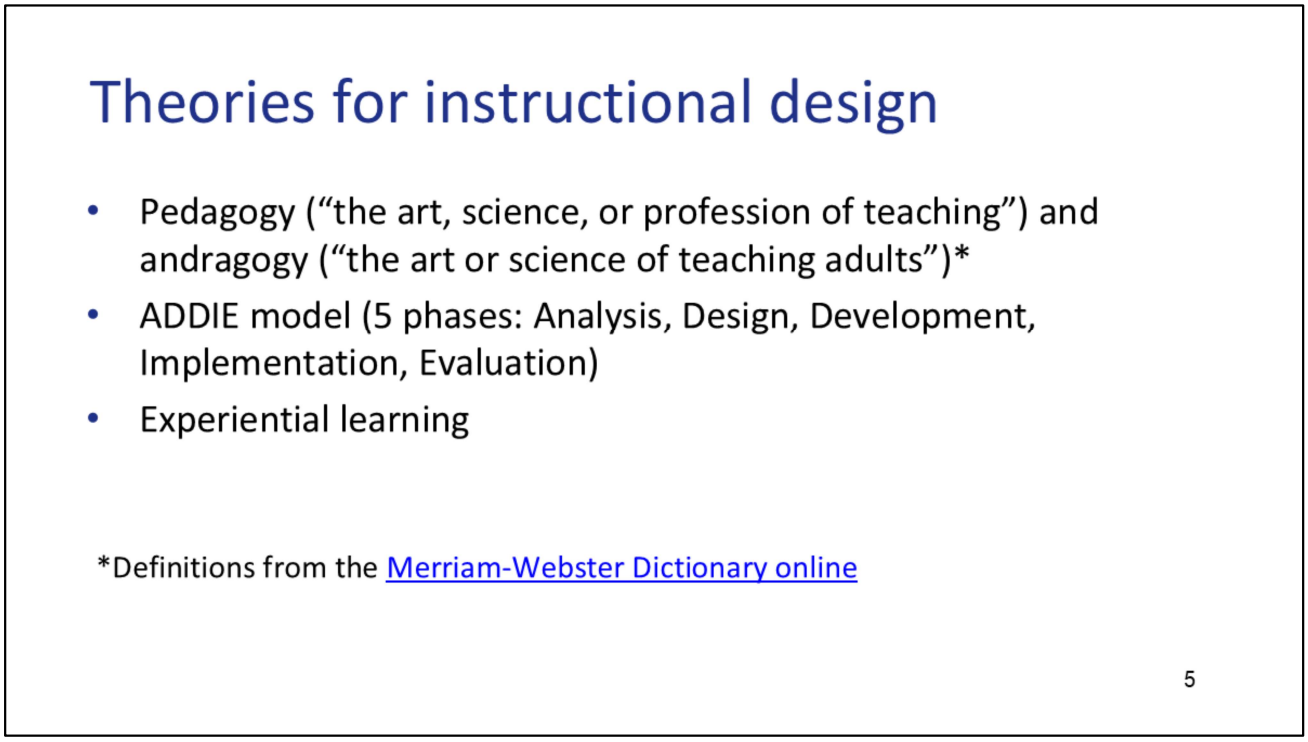
Educators interested in incorporating RDA into their courses should keep in mind that RDA remains "fundamentally the same."*

- RDA is still based on an entity-relationship model.
- We still describe resources using the properties of these entities: Work, Expression, Manifestation, and Item.
- In the official RDA Toolkit, properties are called "elements".
- RDA terminology from the original Toolkit are retained when not in conflict with IFLA Library Reference Model (LRM).
- If you were already cataloguing with RDA, and you have not changed your data environment, your data should not look very different using the official RDA Toolkit.



It is also important to recognize the changes introduced to RDA after the 3R Project:

- The structure of the RDA Toolkit has changed.
    - We will need to adapt how we look up and cite instructions.
    - I want to reassure you that it **is** possible to teach with the official Toolkit, having done so since 2021.
- Community-specific instructions have moved out of the base text of RDA.
    - Refer to policy statements, Community Resources, and community-based guidance documents.
- New terms allow us to address common complex scenarios (such as aggregates and diachronic works) or to facilitate RDA data use in a linked data environment (for example, nomen strings).



Teaching skills can come from a combination instinct, experience, and learning from others. Theories of education are helpful for confirming instincts while offering a framework of ideas for planning an educational program. Here are a few that I have found useful:

- When we teach cataloguing, we have to think not only about pedagogy, "the art, science, or profession or teaching", but also andragogy, "the art or science of teaching adults".
- The ADDIE model, which breaks down instructional design into a 5-step cycle, can lead to insightful questions for cataloguing educators during the planning process.
- Principles of experiential learning can provide ideas for more active and engaging learning.

Assumptions	Pedagogical approach	Andragogical approach
The learner	Learning relies on the instructor. Instructors evaluate learning.	Self-directed learning and self-evaluation.
Experience	Students have no experience.	Learners have some experience.
Readiness	Students are told what to master.	Changes spark the will to learn.
Orientation	Learning follows a narrative or "natural" sequence of contents.	Learning is organized around real tasks and problems.
Motivation	Students are motivated by external pressures.	Learners seek self-esteem and confidence.

Adapted from: Clayton Smith & Carson Babich. Chapter 7.4 in *Theories of individual and collective learning*. https://ecampusontario.pressbooks.pub/ticl/. CC BY-SA 4.0

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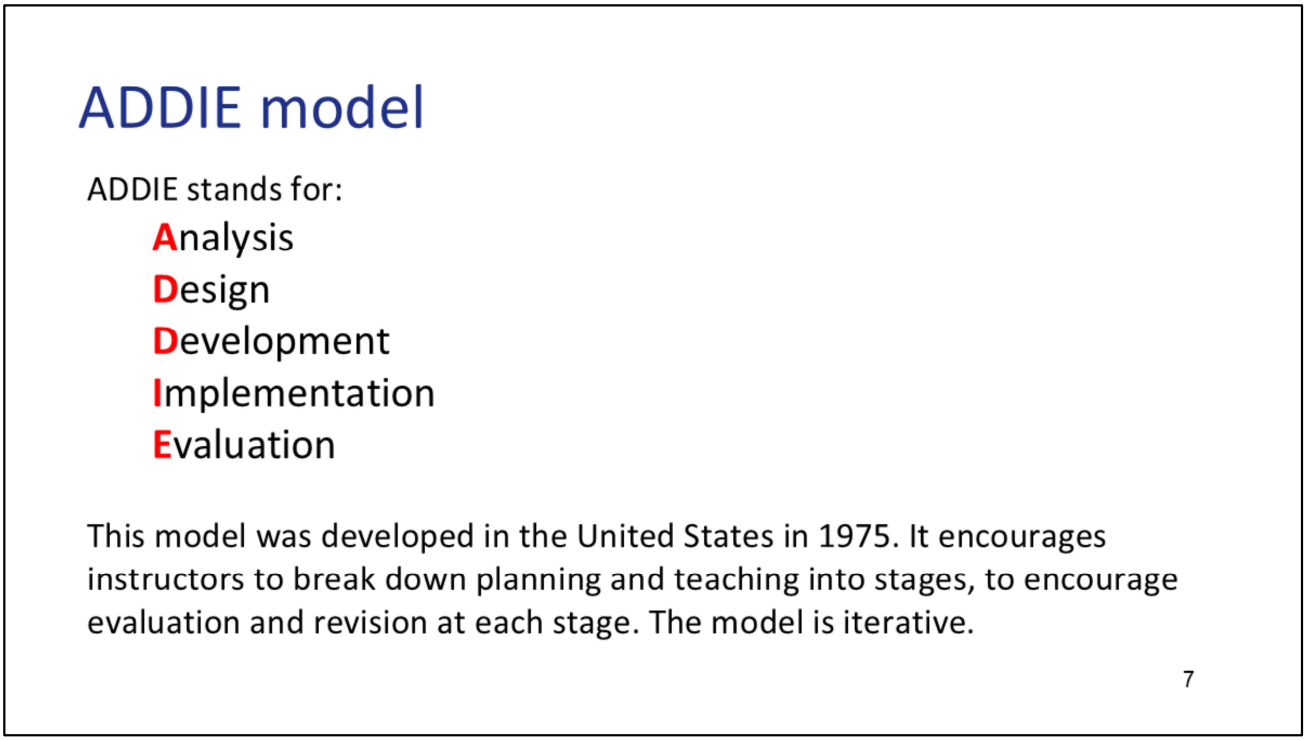
Andragogy is a term introduced by Alexander Kapp (1799-1869), a 19th century German educator and editor. The concept was later developed into a theory of adult education in the 20th century by Malcolm Knowles (1913-1997), an American educator.

- In the pedagogical approach, learning relies on the instructor, and the instructor is the one who evaluates learning. In the andragogical approach, learners are self-directed, and learners assess their own learning through self-evaluation tools.
- In the pedagogical approach, students are assumed to have no experience in the topics taught, while in the andragogical approach, learners will have some experience.
- In terms of readiness, the pedagogical approach requires the instructor to identify the learning outcomes to master, while the andragogical approach assumes that learners are willing to learn whenever a change occurs.
- Pedagogical approaches often organize teaching around a sequence of topics that is natural to the subject. In the andragogical approach, learning is organized around specific real-life tasks and problems that need solving.
- In the pedagogical approach, students tend to be motivated by external pressures such as grades or the need to pass a course or obtain a certificate or diploma. In the andragogical approach, learners are motivated by their self-esteem, and their need for confidence and self-actualization.

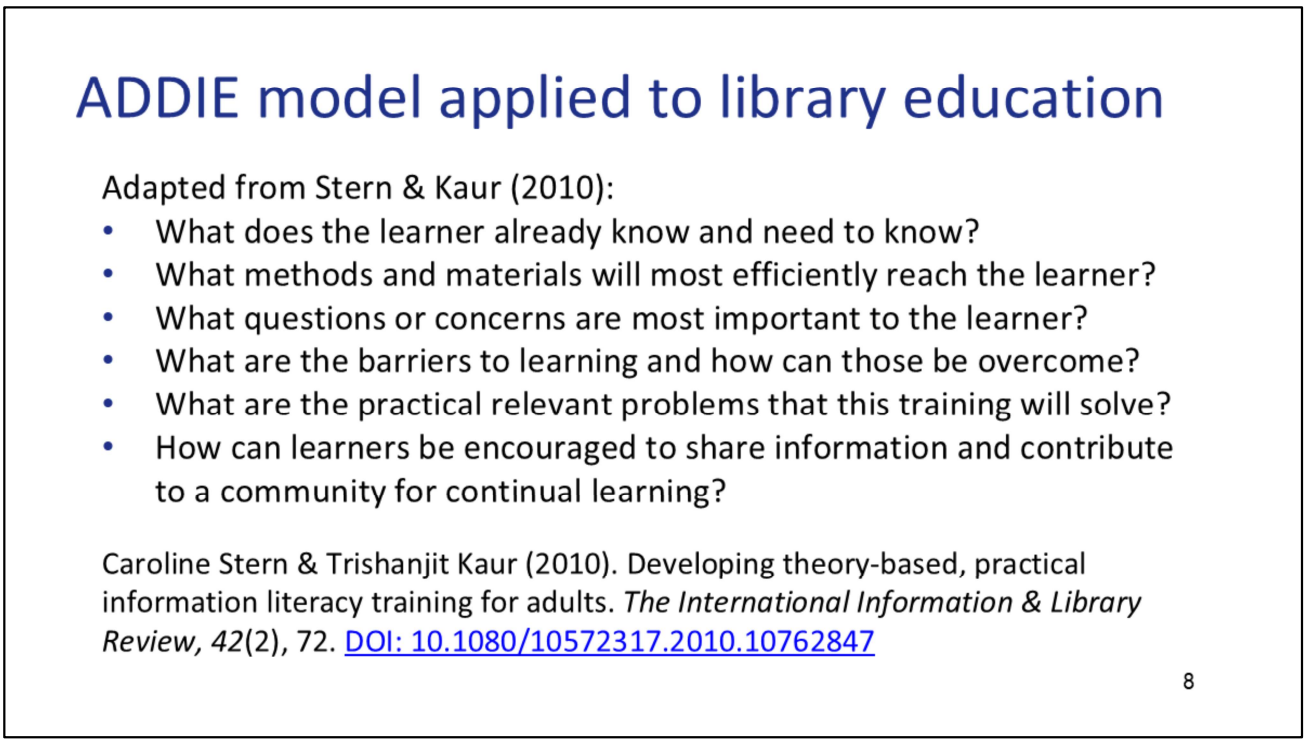
While introductory cataloguing courses tend to be taught with a pedagogical approach, such courses can be enhanced by incorporating tasks based on real-life situations—specifically because students want experience that they do not yet have. Conversely, job training programs tend to follow the andragogical approach, but some learners may appreciate best practices more when they understand underlying principles and can call on an expert to review their work during the learning process.



The acronym **ADDIE** stands for **A**nalysis, **D**esign, **D**evelopment, **I**mplementation, **E**valuation**.**

This model was initially developed in 1975 in the United States. Since that time, the model has been modified and adapted by others. The model reminds instructors to break the planning and teaching process into smaller components, while enabling evaluation and revision at each stage.

The model is iterative.

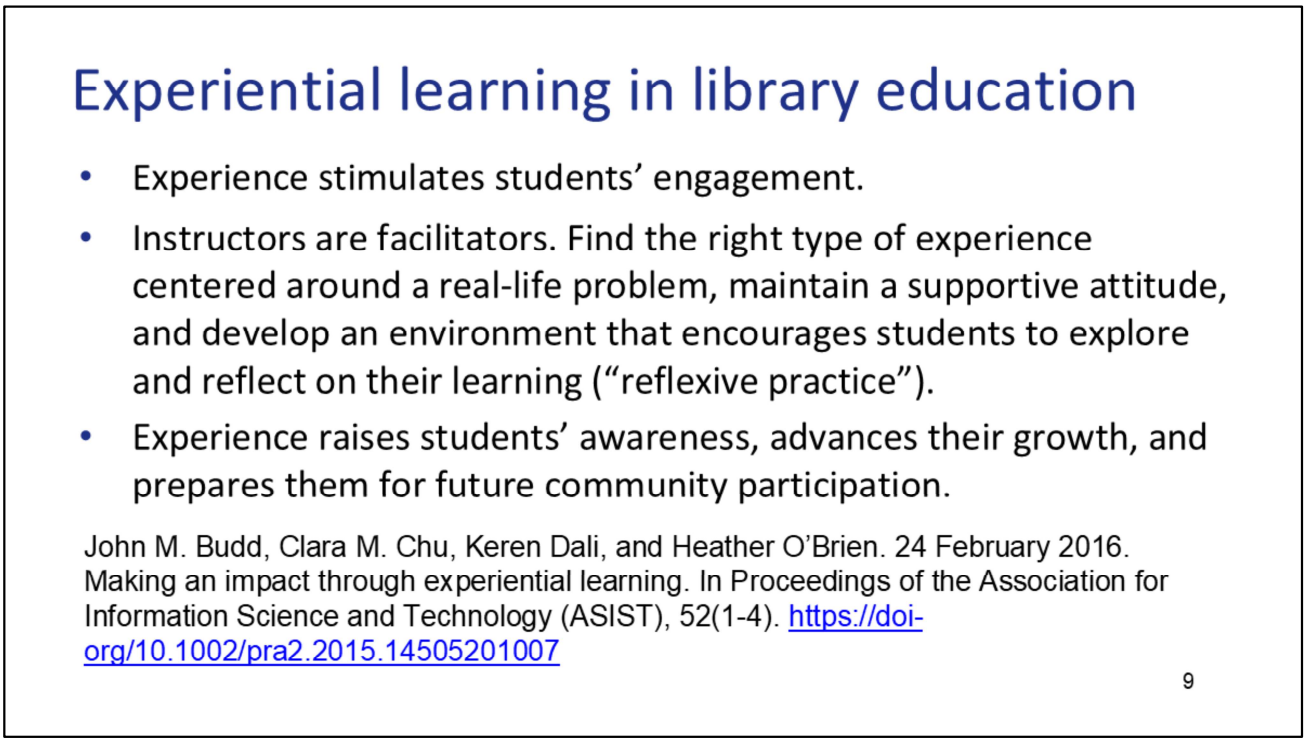


Adapting the ADDIE model to library education, Stern & Kaur (2010) encourage educators to ask these questions during planning:

- What does the learner already know and need to know?
- What methods and materials will most efficiently reach the learner?
- What questions or concerns are most important to the learner?
- What are the barriers to learning and how can those be overcome?
- What are the practical relevant problems that this training will solve?
- How can learners be encouraged to share information and contribute to a community for continual learning?

The application of the ADDIE model can be extended to the teaching of cataloguing and metadata:

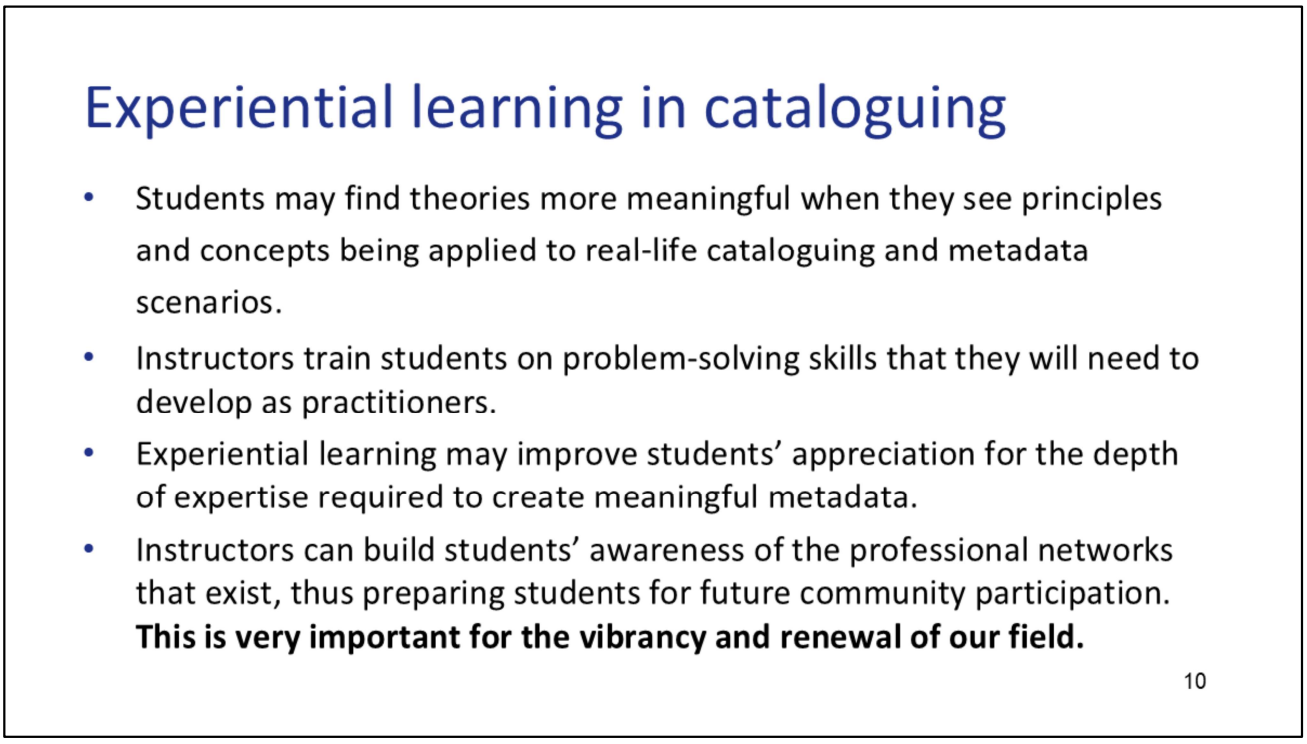
- What does the student already know (or think they know) about cataloguing?
- How do we provide cataloguing standards and guidance efficiently?
- What cataloguing questions are important to the student?
- What practical cataloguing problems will the training solve?
- How do we build a support network for students learning to catalogue for the first time?



Experiential learning is a teaching approach designed to stimulate students' engagement with a topic.

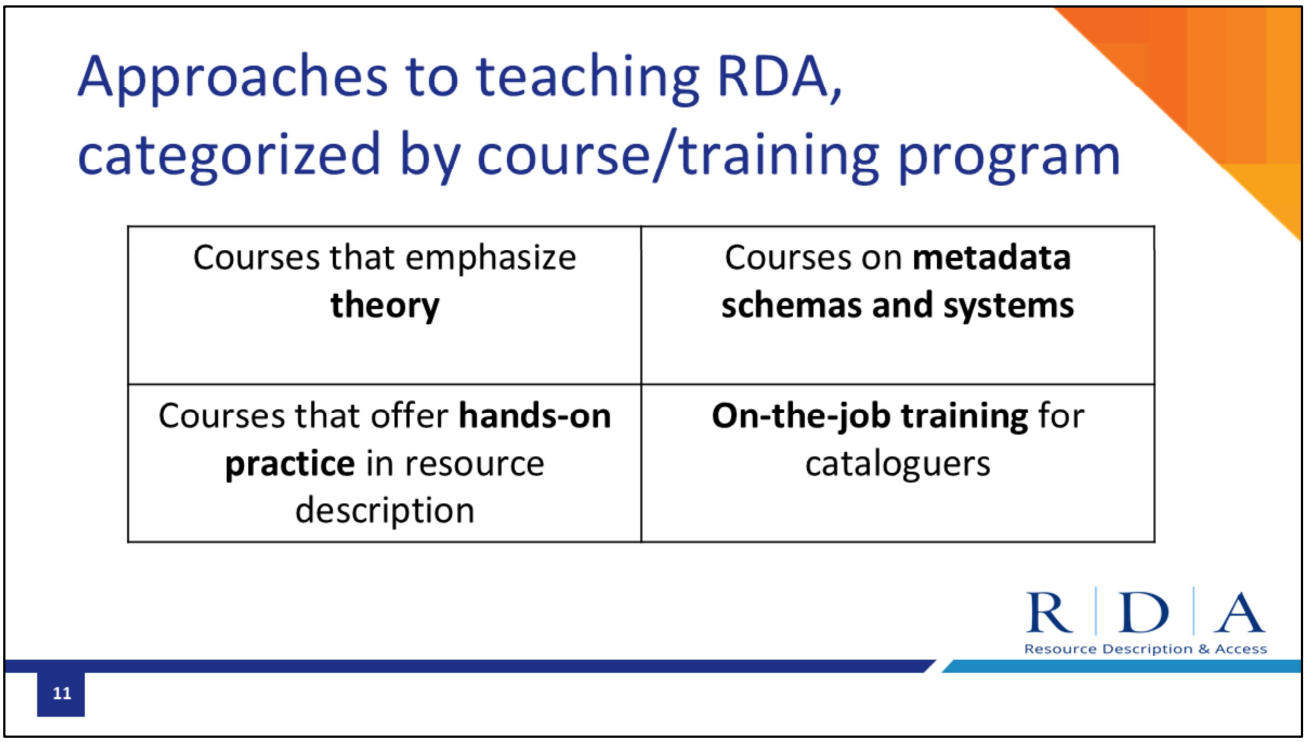
Instructors act as facilitators: They try to find the right type of experience that is centered around a real-life problem, they support students, and encourage students to explore and reflect on their learning. This is called "reflexive practice".

The experience is intended to raise students' awareness, advance their professional growth, and prepare them for future participation in a broader community.



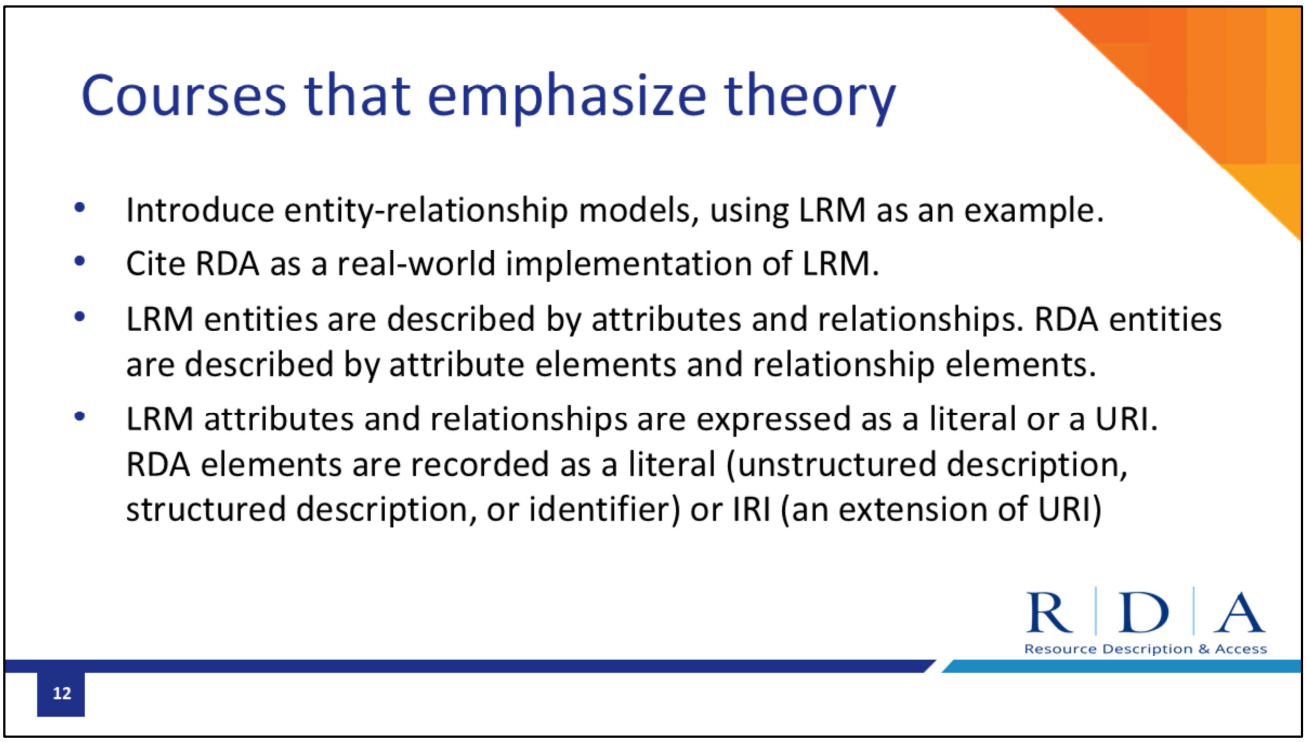
Although the trend in North America, Europe, and Oceania has been to reduce practical courses, in favour of more general, theoretical courses on knowledge organization, there are benefits to retaining experiential learning as a component of cataloguing and knowledge organization courses:

- Students may find theories more meaningful when they see principles and concepts being applied to real-life cataloguing and metadata scenarios.
- In facilitating an experience for students, instructors are training students on problem-solving skills that they will need to develop as practitioners.
- For students who become managers in the future, experiential learning may improve their appreciation for the depth of knowledge and skills required to create meaningful metadata.
- Instructors can build students' awareness of the professional networks that exist, thus preparing students for future community participation. **This is very important for the vibrancy and renewal of our field.**



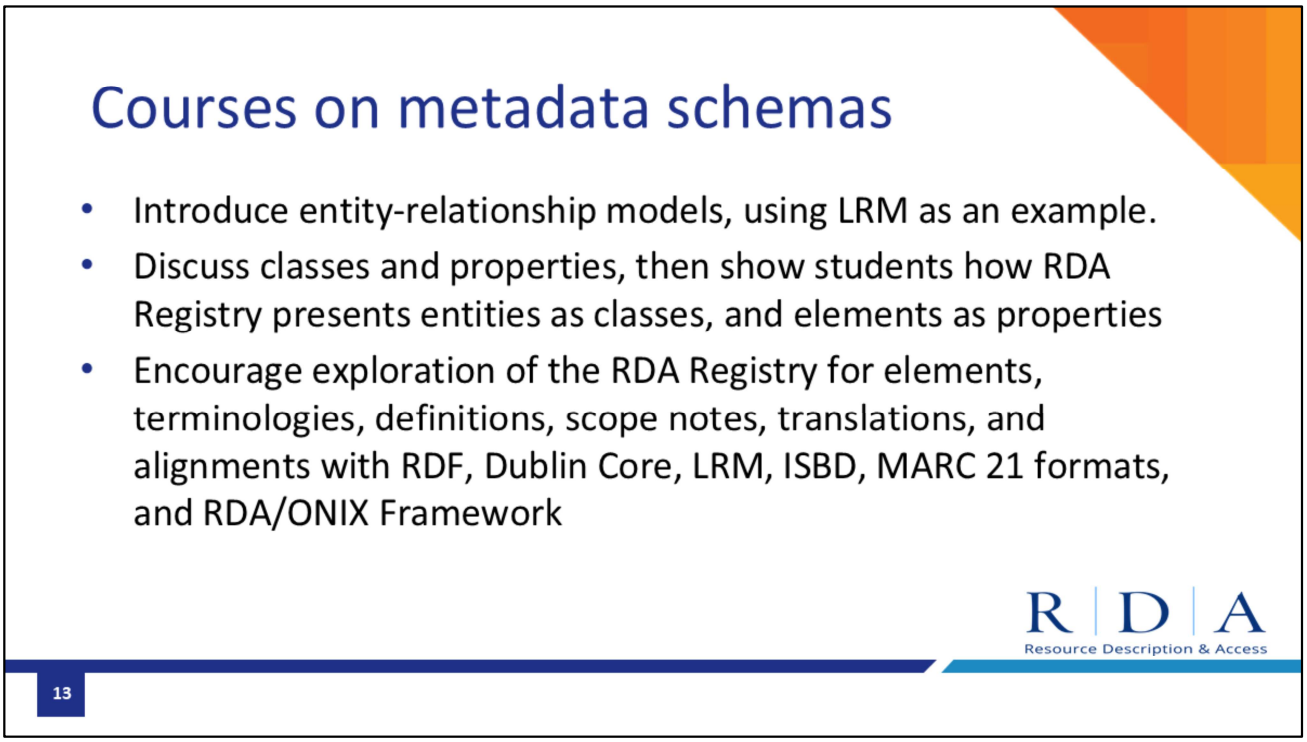
What do these theories about teaching mean for the design of cataloguing education and training? Let me address this question in terms of 4 broad categories:

1. Courses that emphasize theory
2. Courses on metadata schemas and systems
3. Courses that offer hands-on practice
4. And finally, “on the job” training.



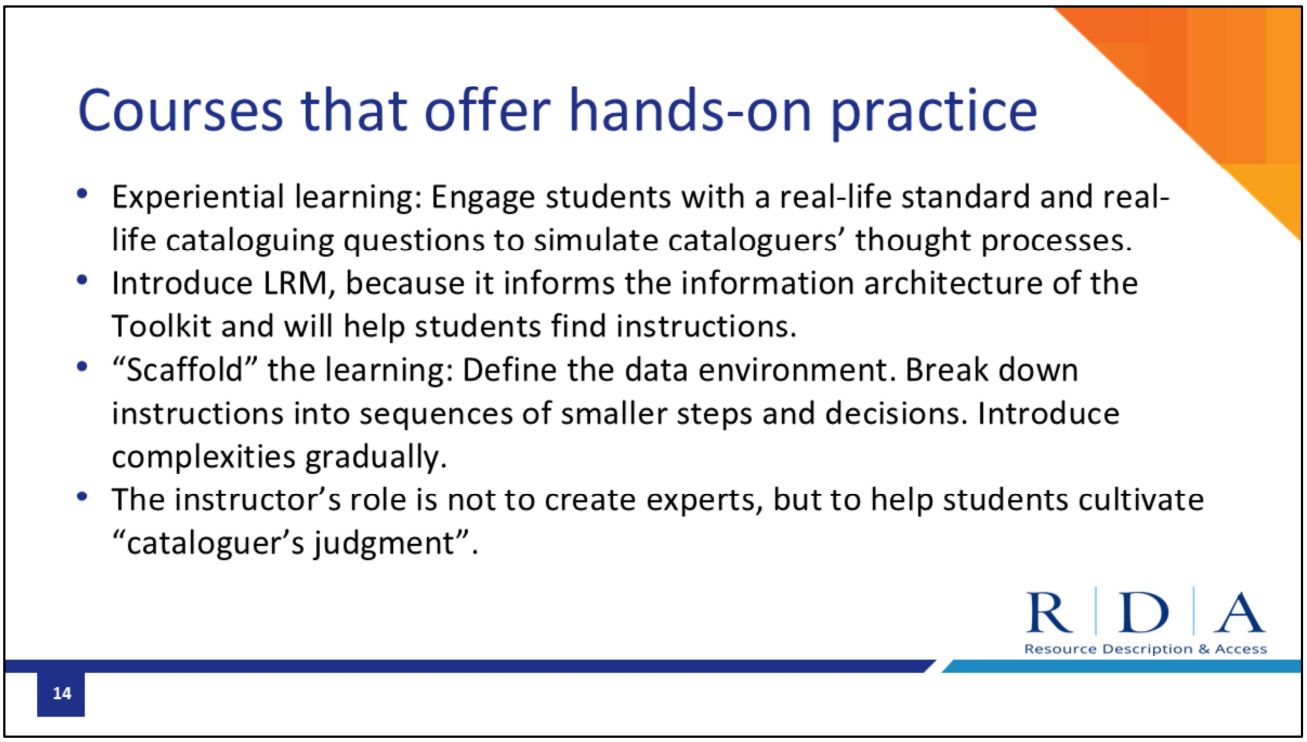
For courses that emphasize theory:

- Entity-relationship models are often introduced in the abstract, but students always want examples. IFLA LRM can serve as an example. LRM has the added benefit of being freely available in multiple languages, and designed specifically to explain bibliographic data use in library and cultural heritage settings.
- RDA can be cited as a real-world implementation of LRM, to make the conceptual model more concrete. Emphasize to students that:
    - LRM entities are described by attributes and relationships. Similarly, RDA entities are described by attribute elements and relationship elements.
    - LRM attributes and relationships are expressed as a literal or a URI, while in RDA, there are 3 different recording methods for a literal (those being unstructured description, structured description, or identifier) and URI is extended to IRI.



For courses on metadata schemas and systems:

- I still recommend introducing LRM as an example of an entity-relationship model.
- When explaining the distinction between classes and properties, the RDA Registry can serve as a useful tool because it presents RDA entities as classes, and elements as properties.
- Educators can encourage students to explore the RDA Registry for elements, terminologies, definitions, scope notes, translations and alignments with RDF, Dublin Core, LRM, ISBD, MARC21 formats, and RDA/ONIX Framework.



For courses that offer hands-on practice in resource description:

- Experiential learning is a key aspect of the course. By engaging students to solve real problems using a real-life standard, students can simulate cataloguers' thought processes.
- By introducing LRM to students, students will better understand the information architecture of the official RDA Toolkit, and hone the ability to find instructions.
- To scaffold the learning experience, educators will want to define a data environment for students, and break down instructions into smaller steps and decisions.
- The instructor's role is to not to transform students into experts, but to help students cultivate "cataloger's judgment."
- To access the RDA Toolkit, the publisher helpfully provides a 30-day free trial, as well as a reduced classroom subscription fee for LIS education programs.

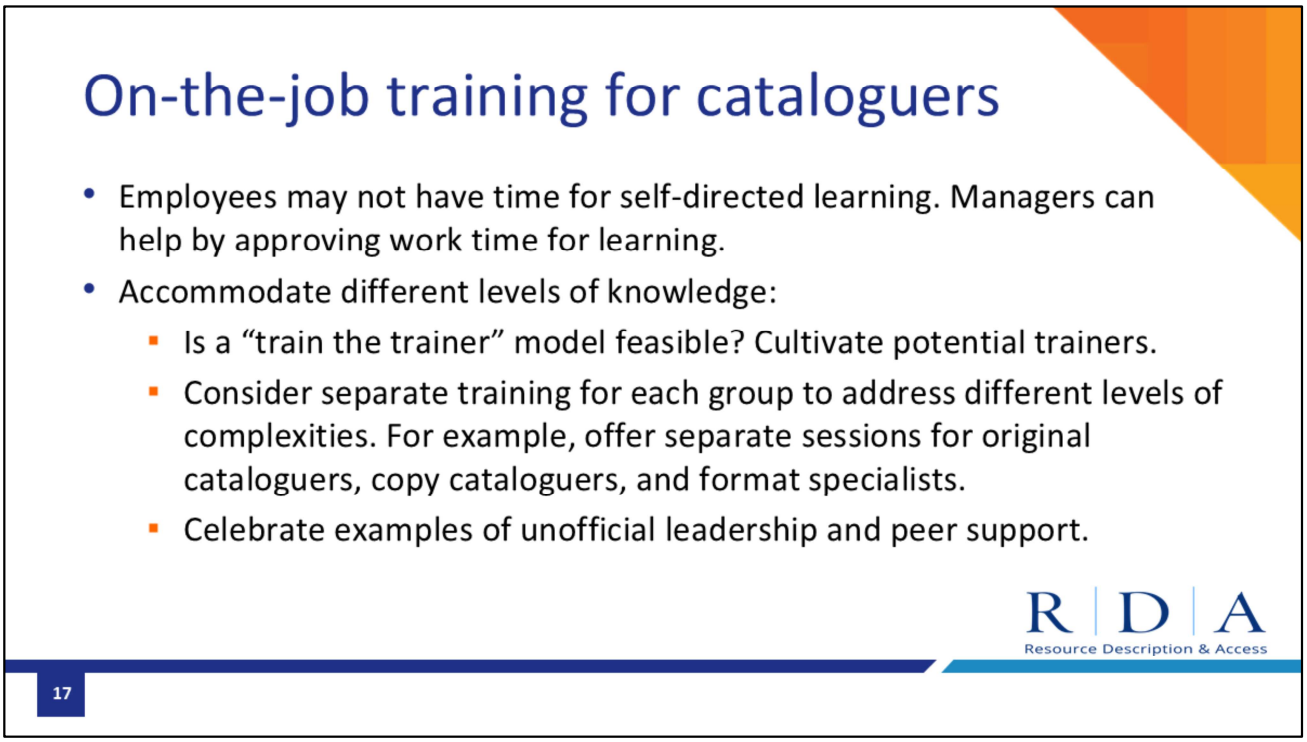
Courses that offer hands-on practice

- Accessing the Toolkit: 30-day free trial or reduced classroom subscription fee for LIS education programs.
- Reassure students that the learning process is more important than obtaining perfect results.
- Try a variety of "active learning" strategies to hold students' attention…

R | D | A
Resource Description & Access

Here are some examples of active learning strategies that can be adapted to RDA:

- Gamification: This concept introduces elements of recreational games into learning. An example that I am aware of is the Prototype IFLA LRM card game developed at the University of Ljubljana, Slovenia.
- Activities that stimulate the "Brain-body connection" can help students stay engaged in class. Physical movement has been found to stimulate students' thinking, improve their memory recall, and help to reduce the feeling of psychological distance between them and their peers.
- The University of Toronto's Centre for Teaching Support & Innovation website lists many more active learning strategies that can be adapted to a cataloguing course.

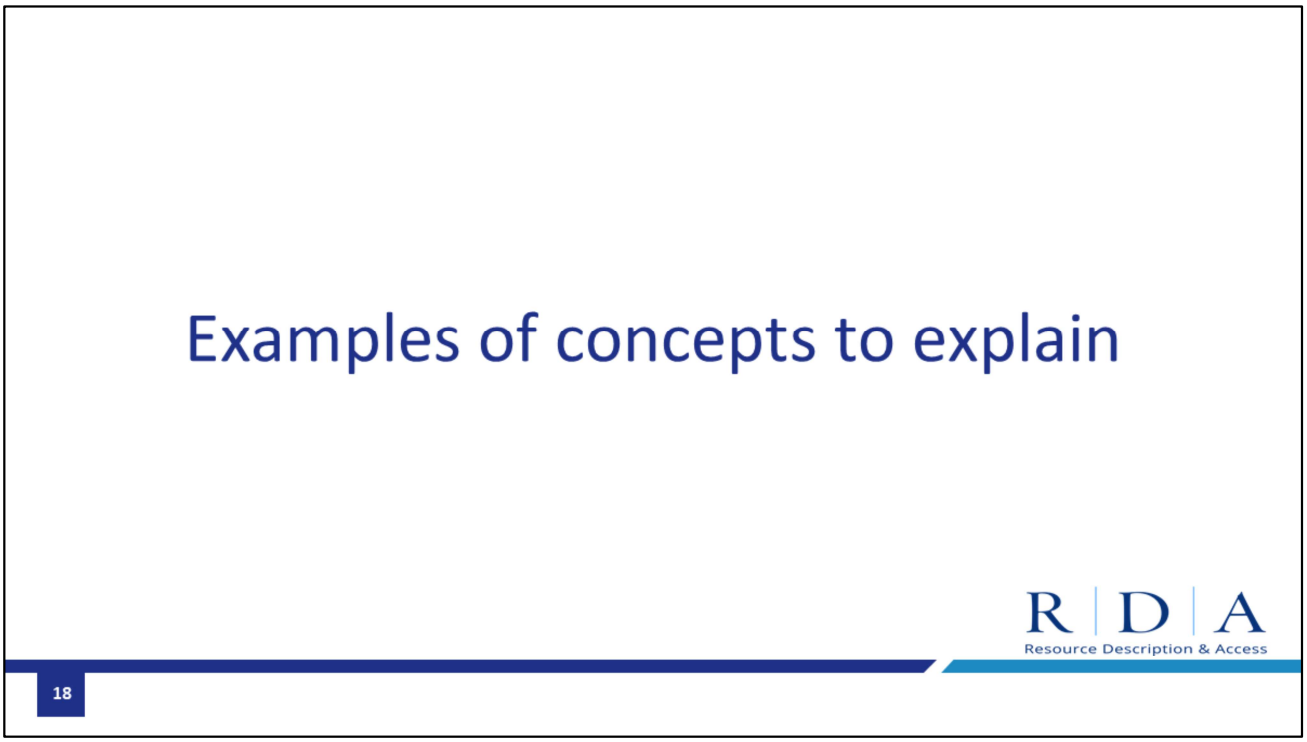


On-the-job training for cataloguers share some similarities with experiential learning courses, but some main differences are that:

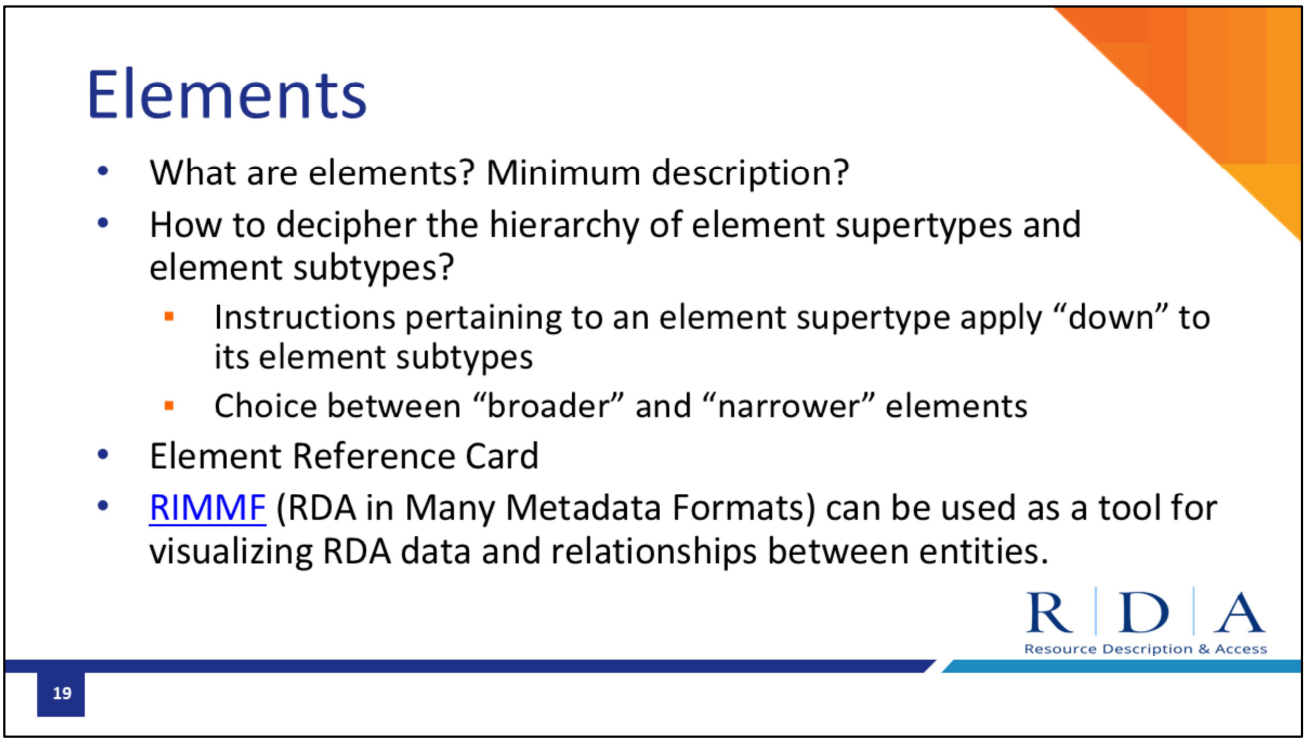
- Employees often lack free time for self-directed learning. To remove this barrier, managers can help by approving work time for learning, and advocating to administrators the value of staying current with standards.

To accommodate different levels of knowledge:

- Is a "train the trainer" model feasible? Identify those who would be good local trainers.
- Consider separate training for each group to address different levels of complexities. For example, offer separate sessions for original cataloguers, copy cataloguers, and format specialists.
- Celebrate examples of unofficial leadership and peer support.

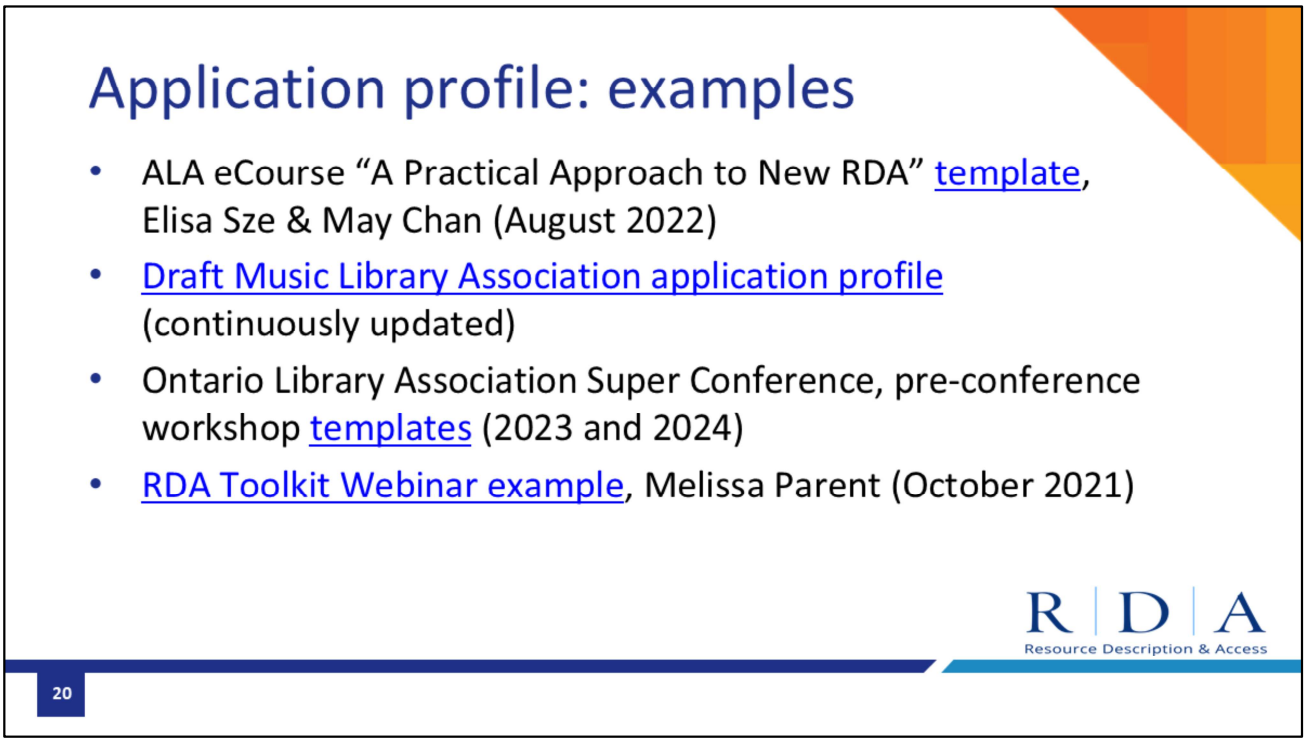


Now I will direct your attention to some concepts in RDA that other educators, trainers, and I have found to require more explanation to students.



For students new to entity-relationship models, and classes and properties, a very basic question to answer is "What are elements?"

- Next, is the question of "Which elements do we need to record when describing resources?" and "What is minimally required?"
- As you know, RDA offers many choices. To choose which elements to record, students have to be shown that there is a hierarchy of element supertypes and element subtypes.
    - Instructions pertaining to an element supertype apply "down" to its element subtypes (if you are familiar with Dewey Decimal Classification, this is similar to the principle of "structural hierarchy")
    - Instructors guide students in the choice between "broader" and "narrower" elements according to the data environment selected for the course.
- The Element Reference Card, visible on every element page, includes key information.
- Educators accustomed to working with flat records may find it difficult to visualize the full potential of RDA data, so for those educators, RIMMF (RDA in Many Metadata Formats) is a third-party tool that can be used for visualizing RDA data and relationships between entities.

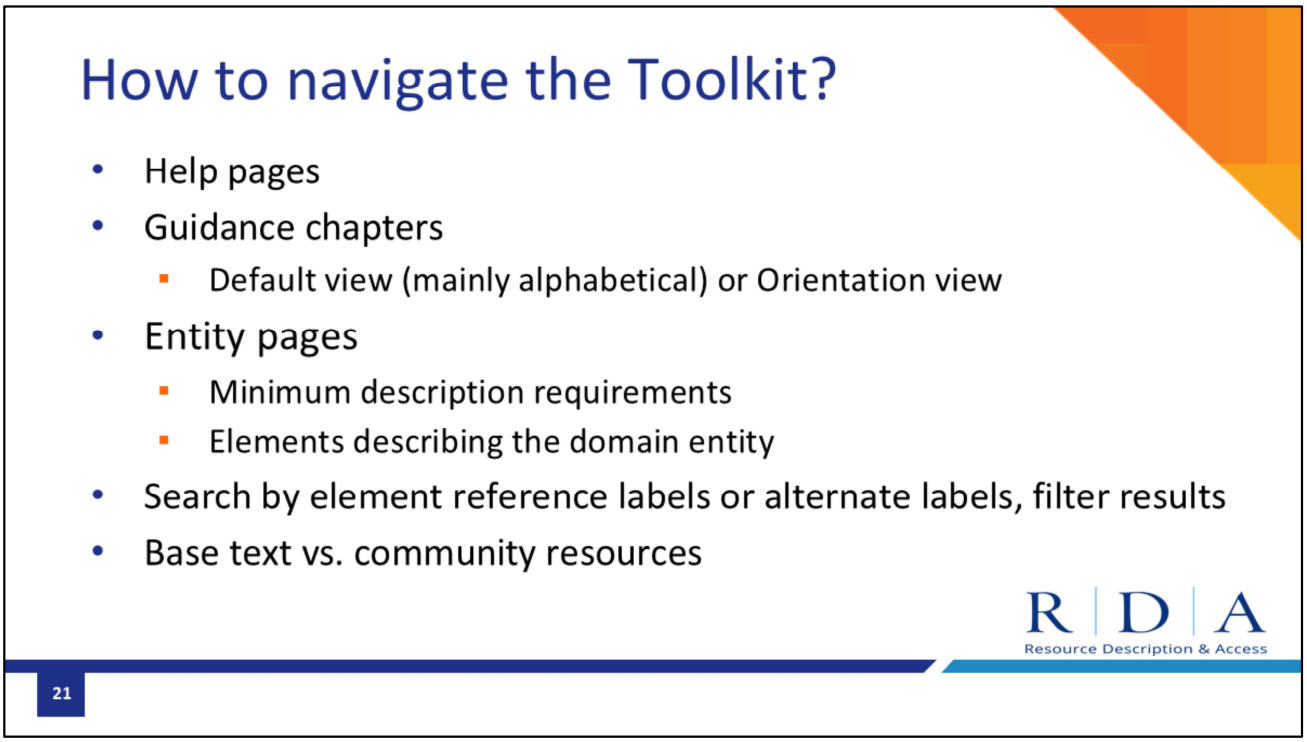


Another concept that will require explanation is application profiles. Application profiles help to focus students' attention by identifying key elements to record, thereby reducing students' cognitive load. An application profile specifies the entities, elements, and vocabulary encoding schemes that are expected in a set of metadata. It provides students with a structure or roadmap for resource description.

Some educators may find the concept confusing, because they think that an application profile has to be a complex set of specifications for system designers, but for teaching purposes, an application profile can be as simple as a list of assigned elements or a template for students to fill in.

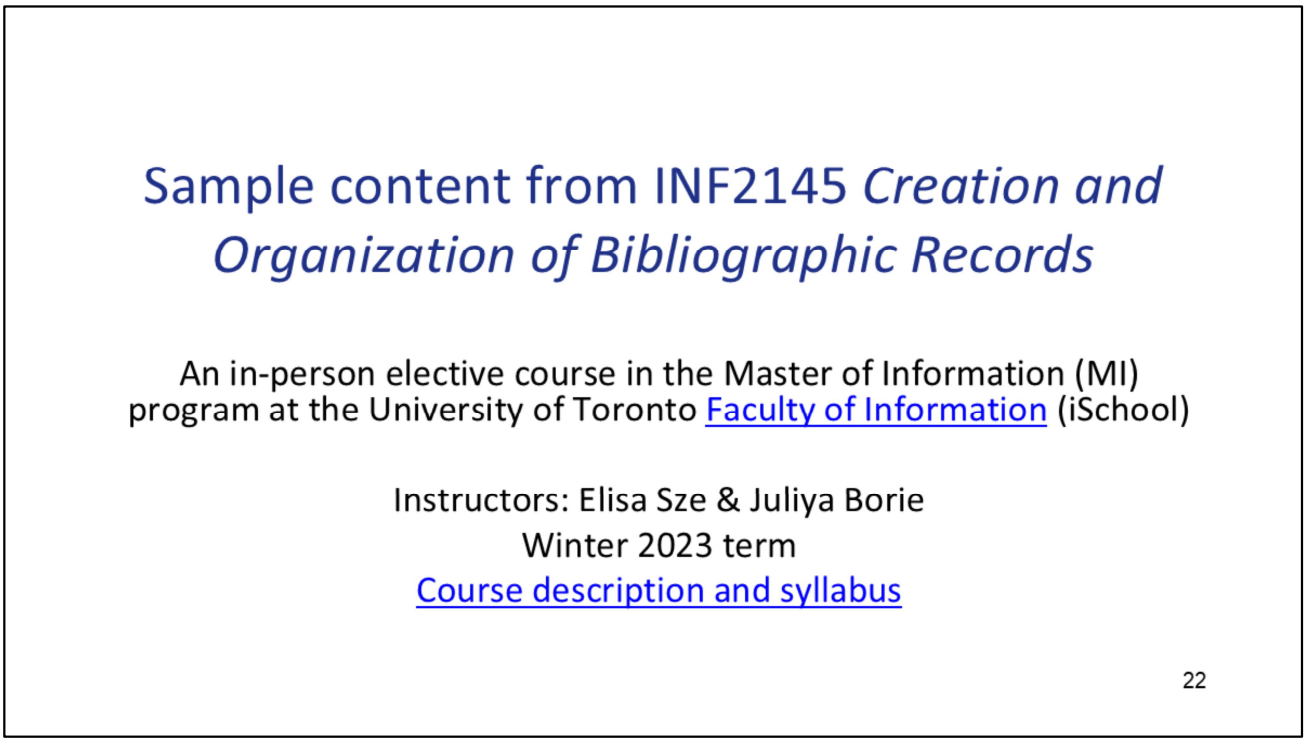
The application profile can also specify recording methods, transcription guidelines, policy statements to follow, external guidance documents to consult in conjunction with RDA text, and sources of controlled vocabulary.

On this slide, I have provided some links to application profiles or templates that serve the purpose of an application profile. These examples are listed only for demonstration purposes.



Students should also be shown how to navigate the Toolkit

- Point out Help pages, so that students learn to use the Toolkit as an online reference tool.
- Point out Guidance chapters, which provide important background information as well as general instructions around resource description
    - The default arrangement of the guidance chapters is mainly alphabetical, but as of the September 2023 release, an “Orientation view” (arranged thematically) can be turned on.
- Show students the Entity pages
    - Point out the Minimum description requirements, and the list of Elements describing the domain entity
- Students who have grown up with the Internet are very comfortable with searching, and using Search boxes to locate information almost as a natural reflex. Show them how to search by element reference labels or alternate labels, and to filter results.
- Finally, explain the difference between the RDA base text (which refer to the entity pages, element pages, and Guidance chapters) versus the Community Resources area of the Toolkit.



In this last segment, I will provide a “show and tell” of content that my co-instructor and I developed for our course taught from January to April 2023.

Sample: Situating RDA in a broader context

"Layer cake" metaphor to explain that RDA is one of many standards covered in the course.

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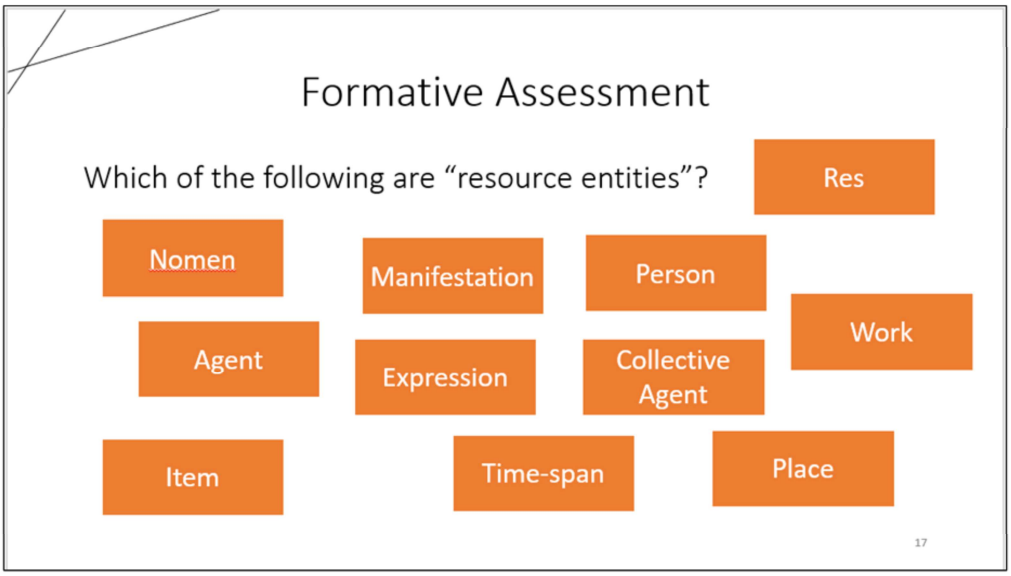
We recognized the importance of situating RDA amongst the multiple standards that students would be learning. To explain how standards are concurrently considered and applied by practitioners, we used the metaphor of a "layer cake".

The creation of a metadata description set, or a bibliographic record, will include all of these "layers" of standards.

Sample: Formative assessment

Low pressure, ungraded in-class interaction to test students' grasp of LRM entities



Formative assessments are designed for students to quickly check their grasp of new, foundational information in a low pressure, ungraded environment.

In this example, we asked students to identify the LRM "resource entities", because those entities would be the ones that students would most often describe in the context of our course.

Sample: Formative assessment

Low pressure, ungraded in-class interaction

If we transcribed the circled text exactly as we see on a resource, which **recording method** are we applying?

a) Unstructured description
b) Structured description
c) IRI
d) Identifier

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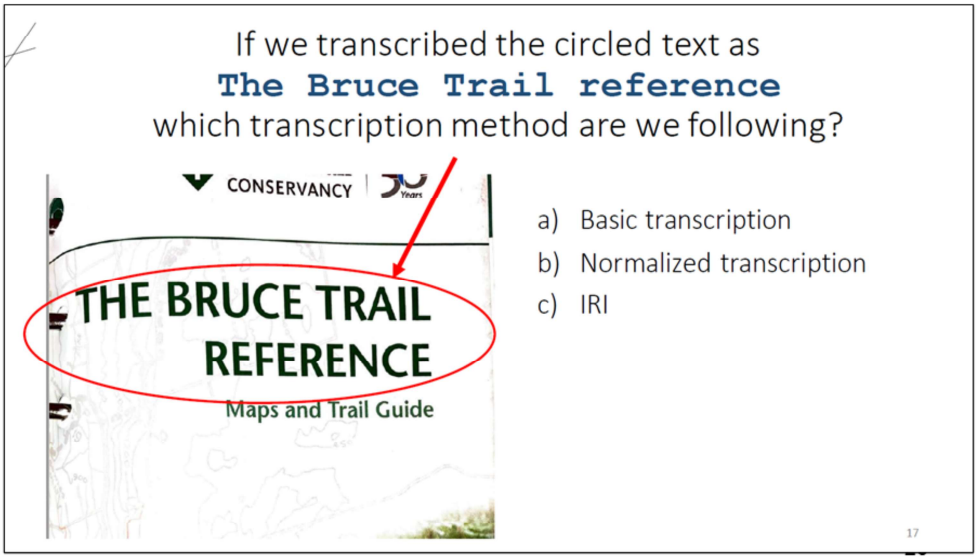
In this example, we wanted to test students' ability to distinguish between different RDA recording methods… This may seem like a basic question, but asking the question ensures that all students are starting from the same foundation.

Sample: Formative assessment

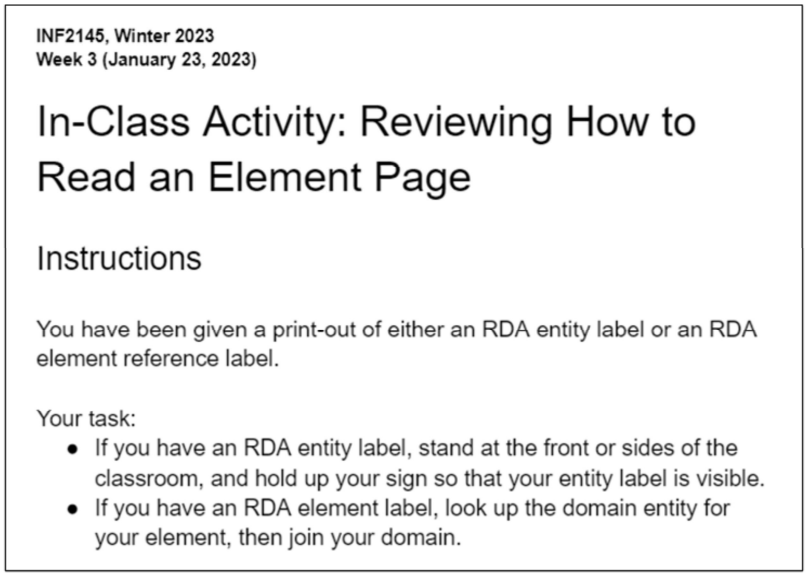
Low pressure, ungraded in-class interaction



... Similarly, this question was asked to ensure that students understood the difference between transcription methods.

Sample: Formative assessment

Ungraded in-class activity requiring students to interact with the RDA Toolkit, talk to each other, and move around in the physical classroom. Builds the "brain-body connection."


INF2145, Winter 2023
Week 3 (January 23, 2023)

In-Class Activity: Reviewing How to Read an Element Page

Instructions

You have been given a print-out of either an RDA entity label or an RDA element reference label.

Your task:

- If you have an RDA entity label, stand at the front or sides of the classroom, and hold up your sign so that your entity label is visible.
- If you have an RDA element label, look up the domain entity for your element, then join your domain.

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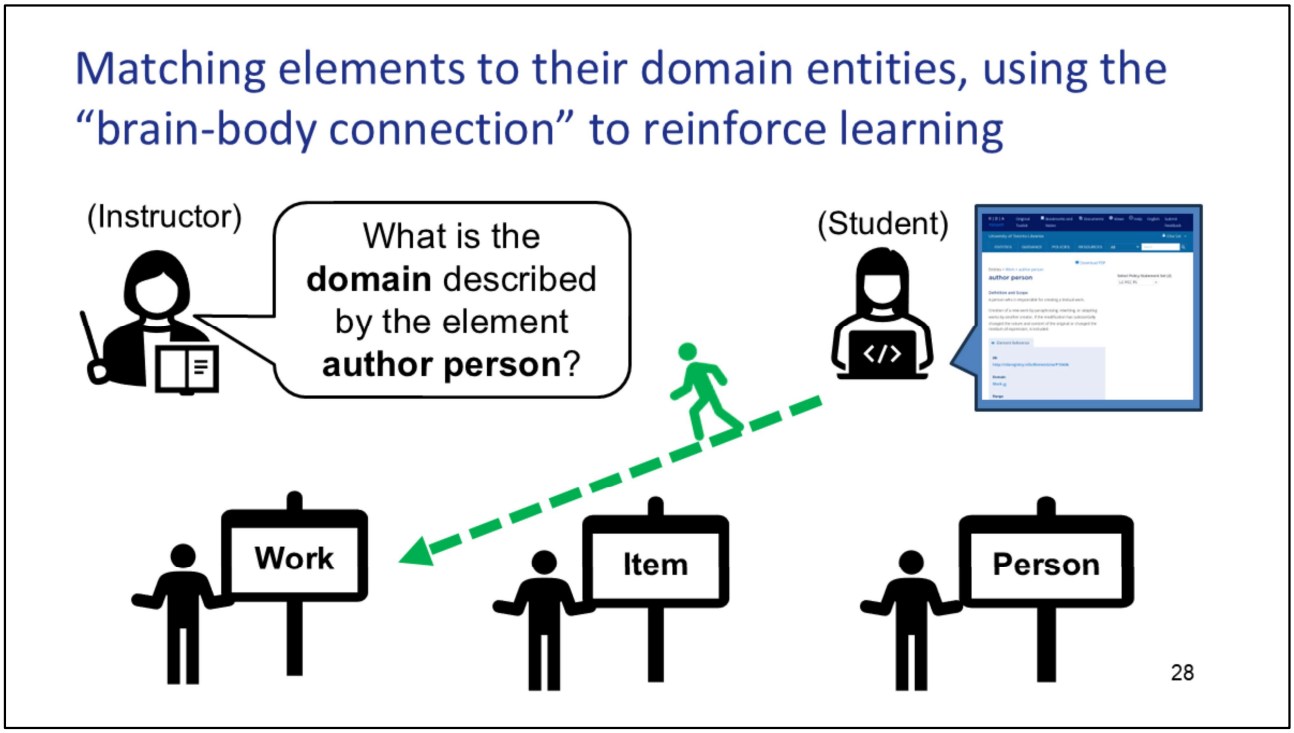
Other examples of formative assessment included in-class activities and exercises that forced students to look up information in RDA Toolkit, interact with their colleagues, and move around in the physical classroom.

In this activity, I used physical motion as a way of keeping students awake during their evening class, but students also found it memorable.



Here is an in-class activity that we introduced teaching students about RDA entities and elements. The physical activity took advantage of the "brain-body connection".

As the instructor, I assigned each student a sign containing the reference label of an entity, or the reference label of an element. [See the top left quadrant of the diagram.]

Students with an entity label were asked to stand in front of the classroom. [See the bottom half of the diagram.]

Students with an element label were asked to log into RDA Toolkit to look up the domain entity described by their element, and then to walk over to their domain entity. [See the green diagonal line running across the middle of the diagram.]

In doing this, students learned how to look up the element reference card within an element page. They also learned about domain versus range.

In the example I have illustrated here, the student has been assigned the element "author person". They must determine whether the domain described by this element is Work, Item, or Person. After they have made the determination, they walk over to the correct entity.

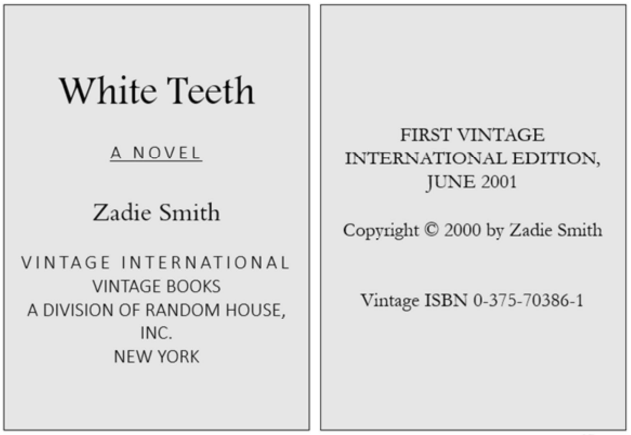
Sample: Formative assessment

Ungraded in-class interaction

Determining the **preferred title of work**

What is the preferred title of work?

a. White teeth
b. White teeth : a novel
c. White teeth : a novel / Zadie Smith



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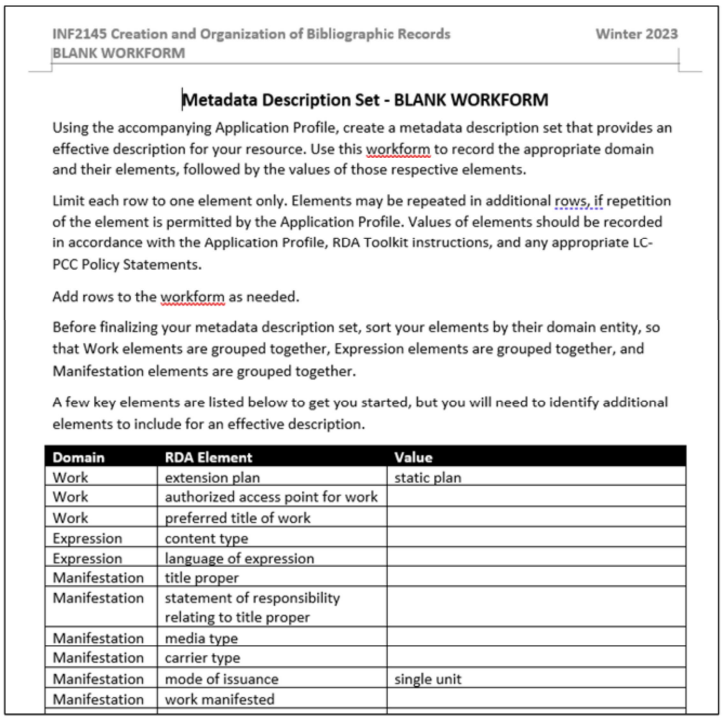
This kind of formative assessment is very similar to the kind of teaching material published in American text books, as well as some teaching materials that instructors in the DACH region have shown me during Zoom calls. Sources of information are displayed to students, and students are then prompted to respond to the question posed about recording a value for a given element.

Sample: Formative assessment

Ungraded in-class exercise that prepares students for what to expect in a graded assignment.

Solutions were posted to the course learning management system later in the week, prior to the next class.



INF2145 Creation and Organization of Bibliographic Records — Winter 2023
BLANK WORKFORM

Metadata Description Set - BLANK WORKFORM

Using the accompanying Application Profile, create a metadata description set that provides an effective description for your resource. Use this workform to record the appropriate domain and their elements, followed by the values of those respective elements.

Limit each row to one element only. Elements may be repeated in additional rows, if repetition of the element is permitted by the Application Profile. Values of elements should be recorded in accordance with the Application Profile, RDA Toolkit instructions, and any appropriate LC-PCC Policy Statements.

Add rows to the workform as needed.

Before finalizing your metadata description set, sort your elements by their domain entity, so that Work elements are grouped together, Expression elements are grouped together, and Manifestation elements are grouped together.

A few key elements are listed below to get you started, but you will need to identify additional elements to include for an effective description.

Domain	RDA Element	Value
Work	extension plan	static plan
Work	authorized access point for work	
Work	preferred title of work	
Expression	content type	
Expression	language of expression	
Manifestation	title proper	
Manifestation	statement of responsibility relating to title proper	
Manifestation	media type	
Manifestation	carrier type	
Manifestation	mode of issuance	single unit
Manifestation	work manifested	

As students spent more time with RDA, we started to assign resources to students to describe according to a course application profile. To record the values of each element identified in the application profile, we set up a very basic template in a Word document.

Sample: Summative assessment

Excerpt from the first major graded assignment

INF2145 Creation and Organization of Bibliographic Records **Winter 2023**
Assignment 1. Description and Access **INSTRUCTIONS PACKAGE**

Due Date: Before Week 6 class (Feb. 13, 2022, 6:30 pm ET) via Quercus
Course Weight: 25%

General Instructions
Assignment 1 requires you to:

1. Methodically describe a single resource, following the official RDA as your content standard.
2. Submit a reflection piece, in which you discuss the effectiveness of your resource description in addressing the concepts, principles, and theories discussed to date within this course.

Instructions for Part 1: Metadata Description Set
You have been assigned:

- A single resource to describe, called *Indigenous Languages in Canada*
- An Application Profile, which defines potential RDA elements to record, as well as additional considerations to factor into a metadata description set. (Review both worksheets found within the same Excel workbook.)
- A Metadata Description Set workform

Here is an example of a summative assessment, used to test students' ability to synthesize knowledge and demonstrate to us their understanding of RDA and principles of resource description as they pertain to the fulfillment of user tasks.

Sample: Summative assessment

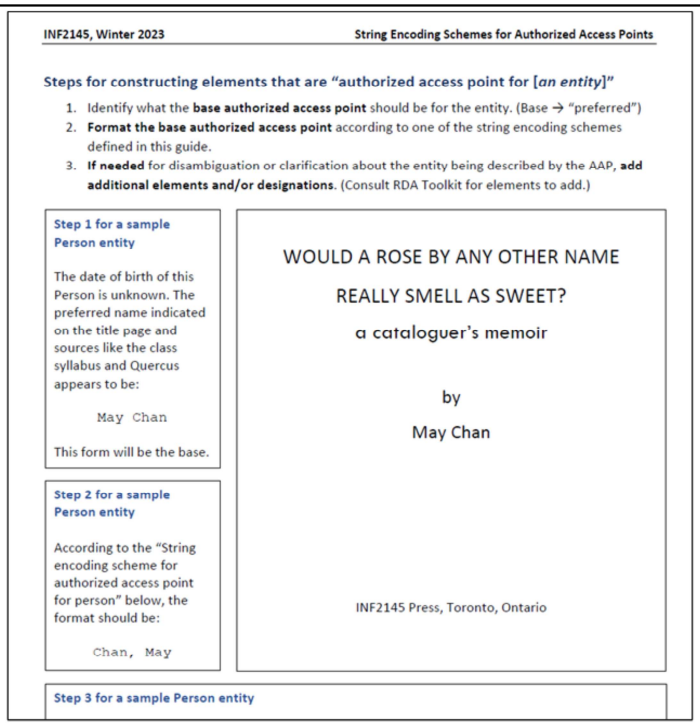
Excerpt of the application profile that formed part of the exam package

RDA Element	Repeatable Element	Domain	Range	Recording method	If Structured Description: Vocabulary Encoding Scheme or String Encoding Scheme	If Unstructured Description: Transcription Method	Additional Comments	Potential MARC21 Bibliographic Tag(s) and Subfields (Fixed fields have not been mapped below)
					Encoding Scheme handout		appropriate	field.
language of expression	yes	Expression		structured	MARC Code List for Languages	not applicable		008/35-37, 041 $a, 546 $a. If assigning a uniform title in MARC record, could also be 130 $l or 240 $l as appropriate.
content type	yes	Expression		structured	RDA VES: Content Type	not applicable		336 $a
mode of issuance	no	Manifestation		structured	RDA VES: Mode of Issuance	not applicable		334 $a
identifier for manifestation	yes	Manifestation	Nomen	identifier	not applicable	not applicable	For URLs of online resource, see the element "Uniform Resource Locator".	020 $a,$q,$z
title proper	no	Manifestation	Nomen	unstructured	not applicable	normalized		245 ** $a
parallel title proper	no	Manifestation	Nomen	unstructured	not applicable	normalized	Record only if value is located on the same source as the title proper. Otherwise, record as a variant title of manifestation.	245 ** $b
other title information	no	Manifestation		unstructured	not applicable	normalized		245 ** $b
statement of responsibility relating to title proper	no	Manifestation		unstructured	not applicable	normalized		245 ** $c. If warranted, 500 $a.
variant title of manifestation	yes	Manifestation	Nomen	unstructured	not applicable	normalized		246 ** $a. If warranted, 500 $a.
edition statement	yes	Manifestation		unstructured	not applicable	normalized		250 $a
place of publication	yes	Manifestation	Place	unstructured	not applicable	normalized		264 #1 $a
name of publisher	yes	Manifestation	Nomen	unstructured	not applicable	normalized		264 #1 $b
date of publication	yes	Manifestation	Timespan	unstructured	not applicable	normalized		264 #1 $c
copyright date	yes	Manifestation	Timespan	unstructured	not applicable	normalized		264 #4 $c
media type	yes	Manifestation		structured	RDA VES: Media Type	not applicable		337 $a
carrier type	yes	Manifestation		structured	RDA VES: Carrier Type	not applicable		338 $a
extent of manifestation	yes	Manifestation		structured	RDA VES: Carrier Type or RDA VES: Carrier Extent Unit	not applicable		300 $a

Here is a screen capture of what the accompanying application profile looked like. It was just a table organized as an Excel spreadsheet, with element labels linked directly to the corresponding RDA Toolkit page. In the right-most column, we identified MARC21 bibliographic tags and subfields. Students had already seen a version of this application profile during our in-class ungraded activities.

Sample: Supplementary handout

Screen capture of a "String Encoding Schemes for Access Points" handout. Handout provides a single summary of key information (instead of referring to many handouts), which reduces students' cognitive load.



INF2145, Winter 2023 — String Encoding Schemes for Authorized Access Points

Steps for constructing elements that are "authorized access point for [*an entity*]"

1. Identify what the **base authorized access point** should be for the entity. (Base → "preferred")
2. **Format the base authorized access point** according to one of the string encoding schemes defined in this guide.
3. **If needed** for disambiguation or clarification about the entity being described by the AAP, **add additional elements and/or designations**. (Consult RDA Toolkit for elements to add.)

Step 1 for a sample Person entity

The date of birth of this Person is unknown. The preferred name indicated on the title page and sources like the class syllabus and Quercus appears to be:

May Chan

This form will be the base.

Step 2 for a sample Person entity

According to the "String encoding scheme for authorized access point for person" below, the format should be:

Chan, May

WOULD A ROSE BY ANY OTHER NAME

REALLY SMELL AS SWEET?

a cataloguer's memoir

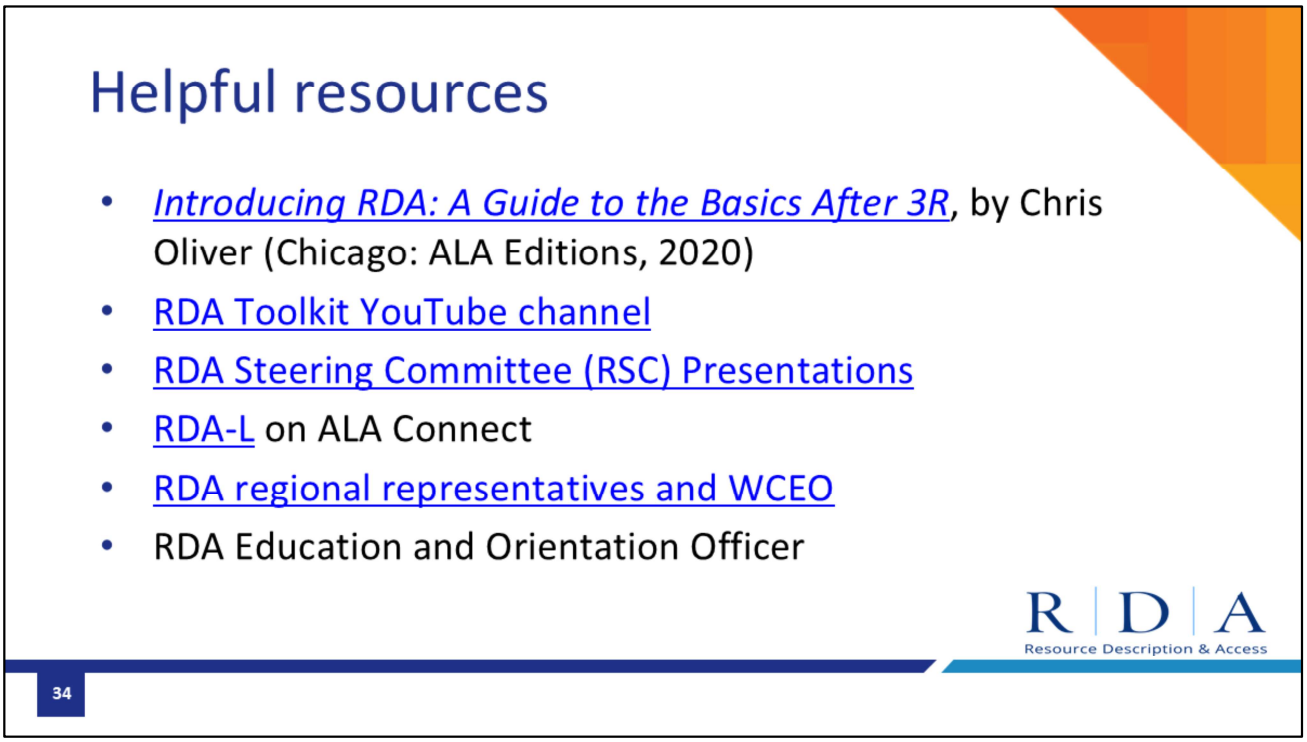
by

May Chan

INF2145 Press, Toronto, Ontario

Step 3 for a sample Person entity

A question that some educators and trainers have asked me is whether I refer students to external metadata guidance documents. Given that the course covers an entire cataloguing workflow, and students are already attempting to master many standards, my co-instructor and I agreed that it would be best to provide key information in the form of a short summary handout rather than directing students to external documents directly. This is an example of the summary handout, or cheat sheet, we provided to students to explain string encoding schemes for typical access points they will encounter as a novice cataloguer.



That concludes my show and tell of sample teaching materials!

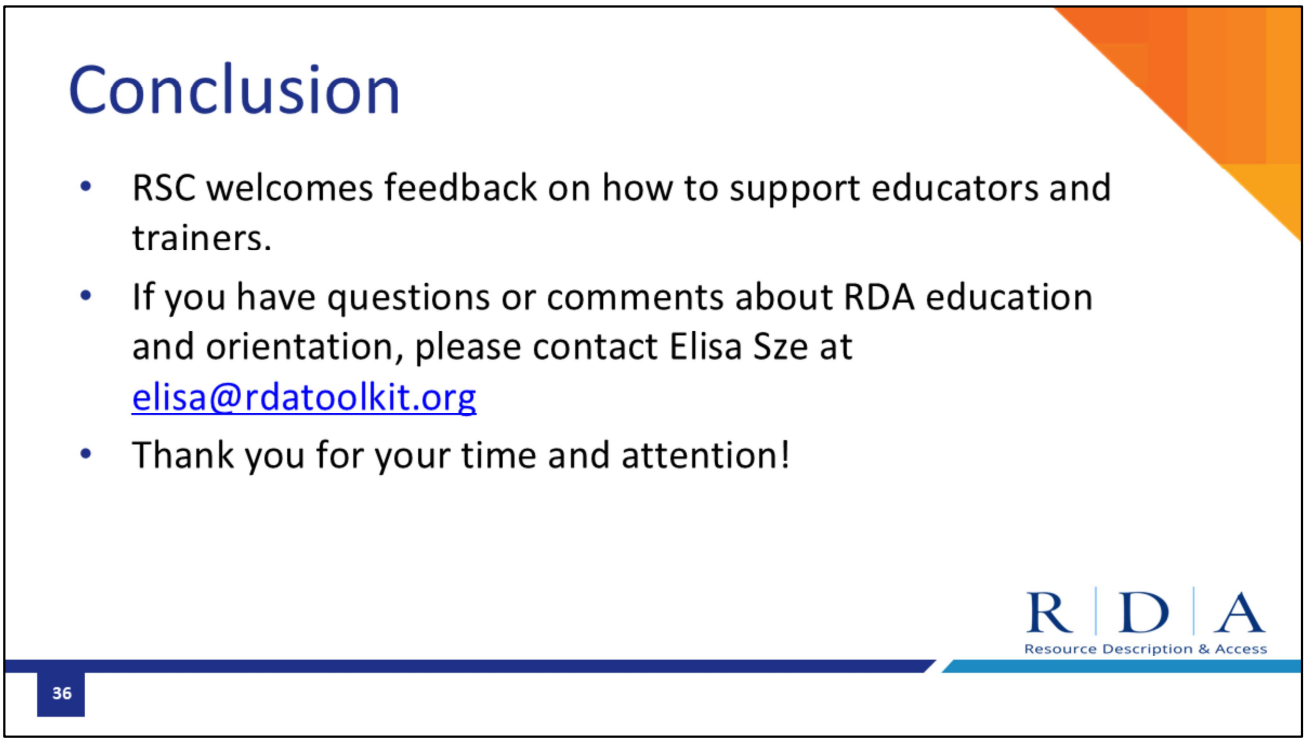
Other helpful resources that educators should explore are:

- Chris Oliver's excellent book, Introducing RDA: A Guide to the Basics After 3R
- RDA Toolkit Youtube channel
- RDA Steering Committee Presentations page
- RDA-L list hosted by ALA Connect
- Connect with your RDA regional representatives. Regions without a formal representative can connect with the Wider Community Engagement Officer.
- And of course, I am always happy to chat with educators and trainers to share information on what has worked well when teaching.

Resources for educators

- Resources for educators
- Teaching & training tips in English
  - Consejos de Enseñanza y Capacitación in Spanish
    Thank you to Ángela Quiroz Ubierna for the translation!

R | D | A
Resource Description & Access



The RSC welcomes feedback on how to support educators and trainers. If you have questions or comments about RDA education and orientation, please contact me at elisa@rdatoolkit.org

We would also welcome volunteers to help translate forthcoming training materials. Please talk to me if you are interested to learn more.

Gracias por su tiempo y atención.