

Title: National Narrative on Reconciliation Report and Percentages

Kessa Den Hoed is a graduate of the Werklund School of Education in 2020, and is passionate about furthering the connections between Indigenous Education and Secondary Math Education. Math and Indigenous Education are so rarely put together so here is me trying! I am grateful for a chance to participate in this project.

<p>Resources used and possible concerns</p>	<p>Resource: “Indigenous Peoples and non-Indigenous Canadians agree on need for reconciliation: national report” by Reconciliation Canada - A New Way Forward Society (Internet Source)</p> <p>Possible concerns: Math lessons and Indigenous Education are difficult to mix in an authentic, meaningful fashion. Using questions with Indigenous context is better than ignoring Indigenous issues altogether, but we do walk a fine line of just tokenizing the issue by using it as an excuse to focus only on the numbers and math.</p>
<p>Author/ creator and/or literature background</p>	<p>Literature</p> <ul style="list-style-type: none"> <li>- “The Truth and Reconciliation Commission in its final report placed much of the responsibility for this change on governments and Indigenous leaders, but it will also require meaningful engagement among Indigenous Peoples and other peoples in Canada” (p. 1)</li> <li>- Unfortunately data from September 2016 will only get more and more out of date</li> </ul>
<p>UPE course connections (not exhaustive)</p>	<p>Why should Werklund teachers use my lesson as a resource?</p> <ul style="list-style-type: none"> <li>- You can TOO have Indigenous content in secondary math!</li> </ul> <p>Use in a spec class or as an example?</p> <ul style="list-style-type: none"> <li>- Use context that matters. Why talk about the percentage of a fictional class who takes the bus to school when you can talk about something like this?</li> </ul> <p>Connections to Werklund Courses:</p> <ul style="list-style-type: none"> <li>- Secondary Math Spec I/II – This lesson plan is relevant to the specialization class because it is literally math content. In Specialization I, preservice teachers must write a lesson plan and this example lesson plan shows one option for incorporating differentiation and assessment (other classes from the second semester) into a lesson. This lesson plan also demonstrates that lessons can be more creative than just teaching what the textbook says.</li> <li>- Interdisciplinary Education – This lesson shows an intersection where Math and Social Studies meet. Giving math context allows multiple points of entry for students who might not usually find math interesting. The grade 8 Social Studies curriculum talks about Contact</li> </ul>

	<p>and Change and the grade 7 Social Studies about Our Canada both prepare students to discuss varying perspectives, and this example weaves math and social studies together more than they often are.</p> <ul style="list-style-type: none"> <li>- Pragmatics of Teaching and Learning – This lesson is an example of when to use a jigsaw to mix up groups of students and have them report to each other. Thinking about what a lesson practically looks like - where the students move to, how much time each activity lasts, and other details like that - is a skill to get preservice teachers thinking about early on in the degree. I hope that this lesson plan also shows that math classrooms (or, any secondary classrooms) can have movement and sharing of ideas.</li> </ul>
<p>K-12 connection</p>	<p>Layman’s terms, buzzwords</p> <ul style="list-style-type: none"> <li>- Math: percentages</li> <li>- Group work: jigsaw</li> <li>- Context, connections, Canadian</li> </ul> <p>Program of Studies: Grade 7 Achievement Indicators</p> <ul style="list-style-type: none"> <li>- 3. Solve problems involving percents from 1% to 100%. [C, CN, PS, R, T] [ICT: P2–3.4]</li> <li>- Express a given percent as a decimal or fraction.</li> <li>- Solve a given problem that involves finding a percent.</li> <li>- Determine the answer to a given percent problem where the answer requires rounding, and explain why an approximate answer is needed; e.g., total cost including taxes.</li> </ul>
<p>Materials</p>	<ul style="list-style-type: none"> <li>- SMART Board or projector screen with access to <a href="https://reconciliationcanada.ca/resources/national-narrative-report-on-reconciliation/">https://reconciliationcanada.ca/resources/national-narrative-report-on-reconciliation/</a></li> <li>- Class laptop cart</li> <li>- Students should own calculators</li> </ul>
<p>Rationale</p>	<p>Big idea: Indigenous issues deserve our attention and are a great time to practice percents.</p> <p>Purpose: Students will put percentages into context, practice research skills, and make connections between Math and social issues.</p>

Lesson/ activities	Time	Activities	Differentiation	Assessment
	4 mins	Welcome students, pass out laptops to students	Follow COVID protocols if necessary to keep students distanced while they get laptop	Read students' attitudes, make sure everyone is ready for a serious topic/conversation
	2	Get students onto Report website <a href="https://reconciliationcanada.ca/resources/national-narrative-report-on-reconciliation/">https://reconciliationcanada.ca/resources/national-narrative-report-on-reconciliation/</a>	Consider posting this link to D2L, Google Classroom, or wherever students can easily find it	Circulate to ensure everyone is finding this
	2	Define "survey" to make sure students understand that Canadians were asked questions and their results were sorted based on their demographic	Consider which students are ELL	Ask students what questions they have
	5	Connect to Social Studies 8 "Contact and Change" last year's "Our Canada", discuss how the legacy of contact and colonization still shape Canada and the experience of Indigenous groups over generations. It is shown in this survey how distinctly different the opinions of Indigenous groups can be from "the rest" of Canadians.	Connecting math to another subject may help students who don't always feel comfortable with math find a way to connect	
	5	As a class, figure out if representative samples of Indigenous Peoples (N=521) and non-Indigenous Canadians (n=1,529) were used, how many people said what?	Try a few examples until the class feels comfortable with this type of task	Have students check their answers against nearby partners

		For example, how much is 46% of 1529? 703.34, which means about 703 people. Ask students what it makes sense to round to: whole unit because people are discrete.		
4		Make groups of 3-4 students. Have groups choose a province/region of Canada and select that tab on the website.	If students don't know each other well or are known to struggle with focus, assign groups	Circulate to ensure students are on task
5		Consider the "Need for Reconciliation" graph on the left. Ask groups to work together to find out what percentage of people did NOT answer this question.  Compare whether this percentage of didn't-answer people is the same between Indigenous and Non-Indigenous groups.  Example: Alberta Indigenous Peoples 100% - 55% - 25% - 8% = 12% did not respond	Circulate and ask students who are having troubles which percentages are relevant? (they can't just add or subtract everything they see, they need to stay sorted by Indigenous vs Non)	Ensure students are on track
5		Consider the "Support for actions to achieve reconciliation" side. Have groups select a point and figure out what percentage of people did not agree with that point. Have students write down their work, then check their answer by hovering their mouse over the remaining part of the bar graph or asking a groupmate to check their work.	Don't mention hovering the mouse until students have had a chance to work out the math themselves	Circulate and support

	2	Have groups look at all points on the “Support for actions...” side and find the largest difference between Indigenous and Non-Indigenous responses. Spend 1 minute discussing why you think responses might differ on this point.	Have students draw on what they know of the world around them – this makes math meaningful	Students could vote for what they think is the most divisive on a mentimeter poll or something to show participation
	8	Jigsaw groups – have one representative from each group go to each corner of the room to meet with the other representatives. Take time for each student to report what was the point with the biggest difference in response and why the group theorized it might be seen differently by each group.	Give clear instructions about everyone taking a turn to speak so that students take time to listen to each other	Circulate and facilitate if needed
	5	Bring students back to their desks and ask if anyone noticed similarities or differences between the provinces.	Consider calling on students who you heard making insightful points if not enough students are sharing right away	Use thumbs up/down to see who agrees, invite others to add to or counter a comment from a peer
	1	End with a reminder that we are more alike than we are unlike, but it is the responsibility of the settlers to reach out, respect, and make room for Indigenous peoples.	Make sure students understand this was an important, serious topic	Possibly assign homework so students can assess their own learning on percentages

Supporting Sources (APA):

("Indigenous Peoples and non-Indigenous Canadians agree on need for reconciliation: national report," n.d.; Reconciliation Canada, 2016)

Indigenous Peoples and non-Indigenous Canadians agree on need for reconciliation: national report. (n.d.). Retrieved August 24, 2020, from <https://reconciliationcanada.ca/resources/national-narrative-report-on-reconciliation/>  
Reconciliation Canada. (2016). *The Canadian reconciliation landscape*. Retrieved from [http://reconciliationcanada.ca/staging/wp-content/uploads/2017/05/NationalNarrativeReport-ReconciliationCanada-ReleasedMay2017\\_2.pdf](http://reconciliationcanada.ca/staging/wp-content/uploads/2017/05/NationalNarrativeReport-ReconciliationCanada-ReleasedMay2017_2.pdf)