Teaching Ratio and Proportion

1. Reflect on your teaching approach

How could you teach ratio and proportion?

Whether you are experienced in, or new to, teaching math or numeracy, you may find it interesting to watch an authentic classroom video of adults learning about ratio and proportion.

Suppose you need to teach ratio and proportion to a group of adult learners who do not yet understand the concepts. Describe your ideas for teaching this. The questions are for you, to think about your own practice, not necessarily for anyone else to review. Answer as many as you can or wish to in the expandable box below each question..

1. Would you need to brush up on the concept and the algorithms (functions) yourself?

2. Would you like to read about how to teach it?

3. Do you have concrete ideas, perhaps from experience, about how you would teach it? If so, please describe them.

You will watch a video of a classroom in which the teacher is focused on helping students understand ratio and proportion. Before you watch it, consider these questions and Jot down your thoughts in the boxes..

4. What would you like to see or learn from viewing and discussing the video?

5. What is your own teaching approach? How do you teach this?

a. What would your objectives be for this kind of class?
b. What kinds of materials would you use?
c. What would you anticipate as challenges for your students

2. Read about the approach

What's the approach to teaching numeracy?

Underlying the approach to numeracy of adult education teacher, Abby Magee, is students' learning how to think in the language of mathematics, not just to learn algorithms or formulas to apply, but, together with other students, to think through what the language of a problem requires, how to approach solving it, what knowledge they could bring to bear, and why that knowledge might be relevant to this problem. It is based on a curriculum called Extending Mathematical Power (EMPower) which you can read about now or later, as you wish.

3. Watch the video

Watch the Media Library of Teaching Skills (MLoTS) video of Abby Magee teaching ratio and Proportion
https://youtu.be/VFIl735iUuw

4. Reflect on the video

JUST AFTER you view the video, make notes on:

1. Practices you like or don't like

2. Questions you would like to ask the teacher or students

3. Your thoughts about how workers commonly use ratios and proportions in health, technology, construction, commercial trucking, mining, commercial cooking or other occupational fields

4. Your thoughts about how students could actively develop their language skills in the process of learning to compute ratios, proportions and related fractional and decimal interpretations of those ratios and proportions

5. Other questions, observations or surprises.

5. Discuss the video with colleagues

With other math or numeracy teachers, face-to-face or online, discuss the approach Abby Magee uses. Here are some questions to consider:

1. What did you like/not like, and why?
2. What are your questions?

3. Were there any surprises for you?
4. What might you like to do differently with your students?
5. How would you like to do it, what steps would you take next?
6. There may be other ways to teach ratio and proportions, possibly in an occupational context. How would you teach it for students who were interested in a particular career? Share your ideas with others in this discussion.

6. Extend your knowledge

Here are some other math and numeracy teaching resources that may be of interest:

- Extending Mathematical Power (EMPower)
- Watch a discussion by other teachers of the video you watched
- MLoTS other numeracy teaching videos
- Other numeracy and math teaching videos

7. Evaluate this activity

1. What did you like about this professional development activity?

2. How would you like to see the activity improved?

3. Are there other good math or numeracy videos that you would like to recommend to your colleagues? If so, can you provide the name and web address?

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