

Business As Usual?

Not for These Middle-Grades Students



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explain how numeracy

and financial literacy

concepts and skills

may be developed by

starting and running a

business. Read on to

see what the students

learned as a result of

participating in this

'real world' task.



A perpetual dilemma of schooling is how to help students develop skills needed for everyday life, including the work world. Quantitative literacy, also called numeracy, involves an ability to apply essential mathematics skills to authentic or near-authentic tasks. Carefully planned classroom activities can help students develop these important skills. One type of quantitative literacy that merits classroom attention is financial literacy.

The *Australian Curriculum: Mathematics* (Australian Curriculum, Assessment and Reporting Authority [ACARA], 2010) includes numeracy as a general mathematics ability to be developed and notes, "A particularly important context for the application of number and algebra is financial mathematics" (p. 5). The Financial Literacy Foundation (<http://www.understandingmoney.gov.au>) suggests that Australians of all ages have opportunities to increase their knowledge of finances and money management.

Financial literacy is a timely issue. With current financial crises around the globe, the time appears to be ripe for teaching all students about finances (National Education Association, 2009). Further, students do not appear to be as financially literate as they should be (Cook, 2007).

In this article, we describe a financial literacy lesson where two middle-grades classes draw on real-world resources to develop

an overview for opening a small business. The students selected their own business, researched and calculated costs involved in opening and running the business, created advertising plans, logos, and slogans, and brainstormed ways to acquire the required start-up capital.

Skills in quantitative literacy and small-business planning can yield economic success. Kiyosaki and Letcher (2000) explain that starting one's own business provides the opportunity to build an asset that can be sold, to set one's own hours, and to take advantage of tax law and invest assets tax-free. They encourage young adults to think about businesses, noting, "The world is filled with great ideas but only a few people with great fortunes from their ideas" (p. 244).

Lesson overview

This quantitative literacy lesson was taught to two classes: an advanced-ability, predominantly white sixth-grade class in a middle-sized city in Northern Nevada (hereafter, referred to as Class 1) and a less-able, ethnically and linguistically diverse ninth-grade mathematics class in a small town in Eastern California (hereafter, referred to as Class 2). The task was conducted in a single but lengthy lesson completed on the same day.

Students began the lesson by participating in a whole-class discussion about businesses: whether they knew anyone who owned a small business, the types of things needed to run a personal business, expense involved in running a business, what businesses are likely to be in highest demand, which businesses might be a poor choice to open, and why people open a business. Students were then told that they would be planning their own hypothetical business of any type.

Working in pairs and then as a whole class, the students brainstormed a list of costs involved in opening a business. (See a Class 1 example in Figure 1.) They then chose

Clothes store Emma Krai
May 6,

Items	Calculation	Total
Clothes		\$365 between \$10 ⁰⁰⁰ - \$10 ⁰⁰⁰
Shelves	50 × 200	\$10,000 ⁰⁰
Hangers	250 × 20	\$5,000 ⁰⁰
Employees	$99,000 \times 51,740 + 49,120 + 10,000$	\$149,760
Building/Rent	$2000^2 \div 4 \div 9$	\$18,000
Music	10 × 50 =	\$500 ⁰⁰
Dressing room	1250 × 4 =	\$5,000 ⁰⁰
Cash Register (business / for money)	209.99 × 4	\$839.96
Electricity		\$500 ⁰⁰
Tapes	30 × 175	\$5,250 ⁰⁰
Mirrors (Dressing room)	15 × 10 =	\$150 ⁰⁰
Bench (Dressing room)	4 × 25	\$100 ⁰⁰
Hooks (supplies)	8 × 5	\$40 ⁰⁰
Bathroom	$1750 \times 3 = 3750$ $3750 + 300$	\$4,050 ⁰⁰
Phones	200 × 2 =	\$400 ⁰⁰
(catalogue) advertising	5 × 50,000	\$250,000 ⁰⁰
Bags (fancy)	100×1000	\$100,000 ⁰⁰
Security cameras	6 × 64 =	\$384 ⁰⁰
Perfume	20 × 1000	\$20,000 ⁰⁰
Manicure	10 × 10 =	\$100 ⁰⁰
		\$365,010,73.96

Figure 1. Student group's estimated business costs (Class 1).

where they would open their business using local commercial real estate listings found on the Internet. They were given access to the Internet and a telephone, business planning worksheets, writing implements and calculators. The students used the Internet available on the classroom computers to estimate costs for employees, utilities, supplies, advertising and other anticipated expenses.

The students totalled the estimated costs involved in opening their businesses and informally shared their ideas in small groups.

In a whole-class discussion, the students discussed the meaning of “slogan” and “logo” and offered examples they had heard and seen locally and nationally. Students created business names, slogans and logos for their companies (see two Class 1 business logos in Figure 2). Finally, students revisited their total start-up costs and discussed as a class how they would generate the money needed to open their businesses. They discussed

bank loans, personal loans, and stock investors with guidance and factual help from the teacher. Students wrote a persuasive argument for their company, explaining why a bank or individual should invest in their company (see two persuasive arguments for Class 1 in Figure 3). They then presented their completed business overviews to the class (see sample Class 2 business overview in Figure 4).

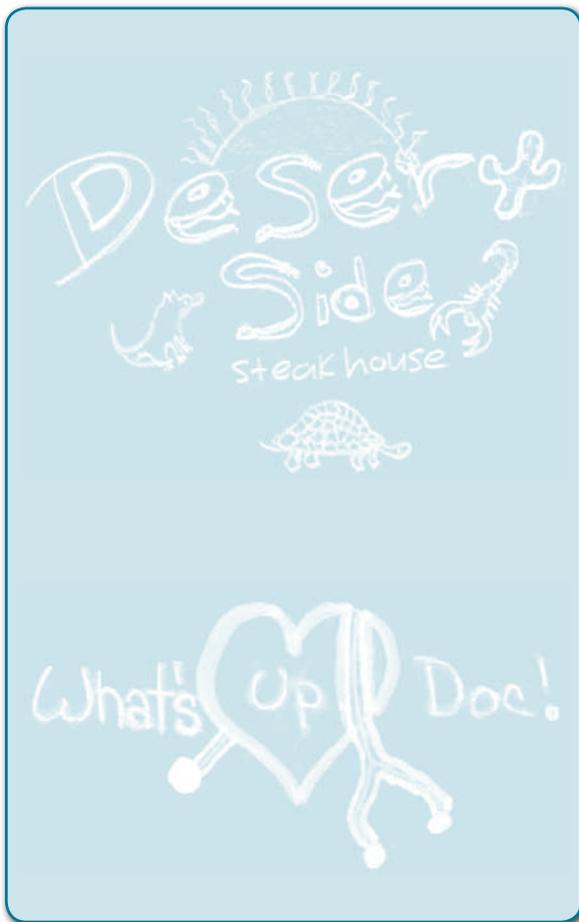


Figure 2. Two business logos (Class 1).

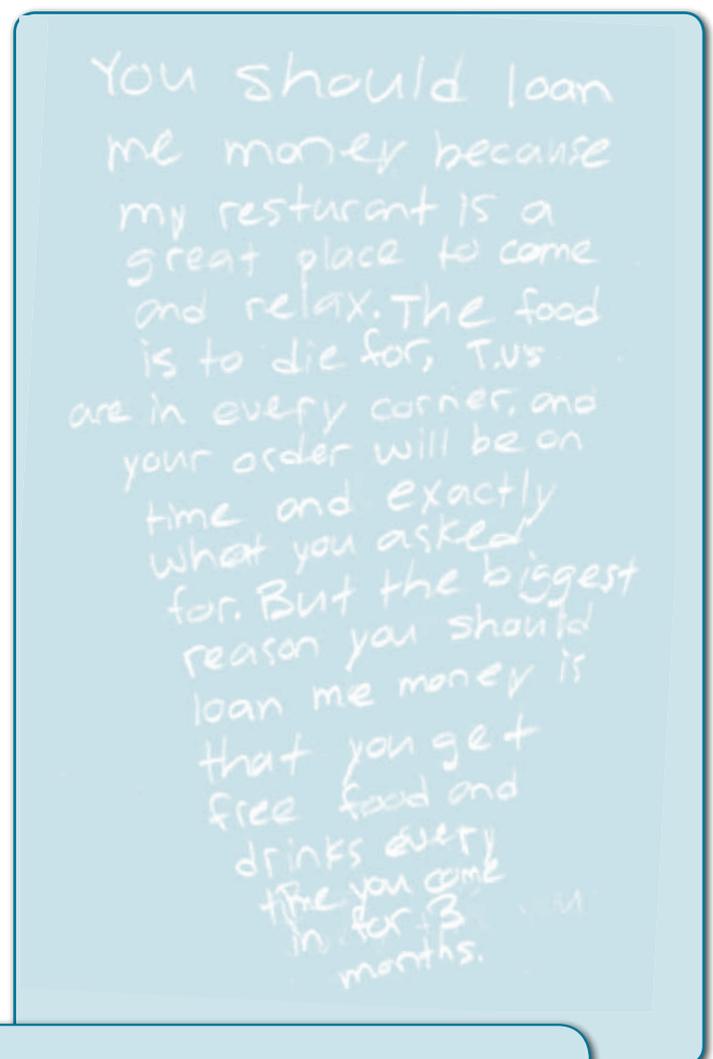


Figure 3. Two calls for investors (Class 1).

My company's name:
Dream Big Clothing Store

My company's slogan:
We make dreams come true

My company's logo:
DREAM BIG

You should invest in my company because...
It will make money, expand, and make every girl fashionable, and feel good about how they look. And I would pay back all loans before keeping any money for myself.

Figure 4. Completed business overview (Class 2).

Student response

As soon as students were told they were going to create their own business overviews, the room buzzed with excitement. Students in Class 1 had to be asked to wait until the whole-class discussion was finished before starting to plan their business. In generating ideas about what businesses would be good or poor choices, students drew on background knowledge of their home city or town. Class 1, from the larger city, did not want to open car dealerships because some dealerships in their town were going out of business. They reasoned that they should open something where people could shop inexpensively due to the weak state of the economy. The students in Class 2, from a small town, discussed opening businesses that would appeal to the tourists that frequented their town. They recommended against opening a Mexican restaurant because two of the three local restaurants were Mexican restaurants.

The initial lesson plan called for students to work in pairs. However, individuals in both classrooms wanted to open their own businesses, so working in pairs was made optional. Almost all students decided quickly on a business and started working. As students worked on estimating the costs of their businesses, they began to think about ways to reduce expenses. Ideas included decreasing the square footage of buildings or choosing a different location with lower leasing costs. One student who had initially planned escalators for her building said, "Those things cost too much. My shoppers are just going to have to climb the stairs." Some students discussed existing businesses and wondered what it may have cost to open them. For example, one student said that whoever owned the new local bowling alley must be rich because it had 36 lanes and bowling lanes were very expensive.

Some students checked multiple websites to seek the best or most reasonable prices. When one student decided to advertise on local cable television and could not find the price online, he and the teacher used a phone number listed online to contact the marketing department and ask for estimated television advertising costs. Many students in Class 1 decided to incorporate a television commercial into their business overview after hearing these costs.

When designing logos, Class 1 requested extra paper and more colouring supplies, with which they were provided. They also wanted to use computer drafting software, which we were unable to provide. Some students created multiple logos and slogans and then asked their classmates and teacher which they liked best. One student said he needed to know which choices would make people want to spend the most money.

Most students opened stores or restaurants. However, because they were allowed to open any business, some more creative options also appeared, including a crematorium/cemetery, a combined hair salon/dog-grooming shop (so owners can

get haircuts while waiting for their pet!), a public transportation system using local trains, a football training camp, a demolition company and a private pre-school.

Teachers in both classrooms commented on the high level of student engagement in the task. Students from Class 1 chose to forego recess to continue working on their businesses and many from Class 2 stayed after the school day had ended to finish their business overview. The teacher in Class 1 suspended an additional hour and a half of other lessons to allow the students to continue working on the task because they were learning so much from it. The Class 2 teacher commented on how much the task engaged even her struggling learners, who persevered rather than giving up when they reached a challenge. This was additionally noticeable in Class 2 for the students who were English-as-a-Second-Language (ESL) learners. These students assisted each other in researching and planning, discussing their ideas in both English and Spanish.

In their written feedback about the lesson, all students from both classes indicated that they enjoyed the task. They especially liked having the flexibility to make all of the choices about the business, including what kind of business, what to buy, location and who to hire. Students indicated that they struggled with estimating the necessary area to lease for a building. This challenge in visualising area was also evident in class when students measured the classroom floor in order to help with the estimation of floor space needed for their business.

Students reported the challenge of finding cost estimates on the Internet. However, they also found gathering pricing information (using the Internet) one of the most interesting and informative parts of the lesson. They made comments such as, “I learned you need money to start a business and the costs of different things like advertising, workers, land and appliances.”

Students wrote about various things they had learned from the task, most describing

new awareness of the many expenses involved in personal businesses. Home-school connections were strong. Many students commented on connections the tasks helped them make to their families. When one presented his task, he said he had to give “props” (proper recognition) to his parents because it was a lot more work than he had thought. Another acknowledged that he now appreciated how much work it had been for his grandfather to start a business now run by his father, and that he may want to take over the business someday since it was already started. Still another said her mother had shown her the expenses from starting their family business. In written feedback for the two classes, all but one student indicated that they had talked or planned to talk with someone outside of school about this lesson.

Lesson reflections and suggestions

This quantitative literacy lesson was a highly engaging task that promoted inquiry, research, challenge and discussion both inside and outside of the classroom. Most students successfully completed full business overviews. Students who did not finish made progress but simply needed more time. Students in Class 1 completed the task in a four-hour morning block. Students in Class 2 did the task in a two-hour afternoon block, with most but not all students finishing.

Class 2 business overviews tended to be of low quality for two reasons. One was that students had a task completion time of only two hours, which was half that of the other class. The other was that this class consisted of less-able students who demonstrated lower-functioning ability than the Class 1 students.

Teachers and students in both classes suggested allowing more time for the task. It may be best to teach this lesson over a two-day period, each two hours long, so that students have time to do additional research and talk to families and community members before returning to finish their business overviews.

Students expressed a desire, for example, to ask their parents for more information about family businesses. One boy requested to call his mother at work to ask her about start-up costs for their family restaurant. Students whose families do not own businesses might interview local business owners to gather more background information for their task. Time for additional research might be especially necessary for students who choose complex businesses, such as a doctor's office. With more time, students might also be asked to conduct marketing research for their business.

Finally, this lesson engaged students in a real-world task, admittedly limited in scope, which involved little teacher direction, minimal time investment, and use of real-world resources. Differences in student responses and research based on the varied contexts they chose for their tasks were evident with business types, associated costs, and perspectives on successful businesses. These contexts differed across individuals (or task groups) and students' place of residence. The difference between exercising quantitative literacy and standard school mathematics skills was quite evident and formed a significant part of the lesson.

References

Australian Curriculum, Assessment and Reporting Authority [ACARA]. (2010). *Australian Curriculum: Draft Consultation Version 1.1.0*. Sydney: Author.

Selected Web resources

- Commonwealth Bank Foundation: www.commbank.com.au/about-us/in-the-community/understanding-money/commonwealth-bank-foundation/default.aspx
- Dollars and Sense for Kids: www.banksite.com/kidscorner/
- EdWise, EdFund's Online Financial Planning Guide: www.edwise.org
- Interactive activities in "girls only" section called "plan ahead": www.girlsinc.org
- Jump\$tart Coalition for Personal Financial Literacy: www.jumpstartcoalition.org
- Money Smart – A Financial Education Program: www.fdic.gov/consumers/consumer/moneysmart/mscbi/mscbi.html
- Savings Quest (online budgeting game): www.mysavingsquest.com/
- The Stock Market Game [free registration for students]: www.smgww.org

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- Kiyosaki, R. T. & Lechter, S. L. (2000). *Rich dad's guide to investing: What the rich invest in, that the poor and middle class do not!* New York: Warner Books.
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