

Situation: Paying accordingly

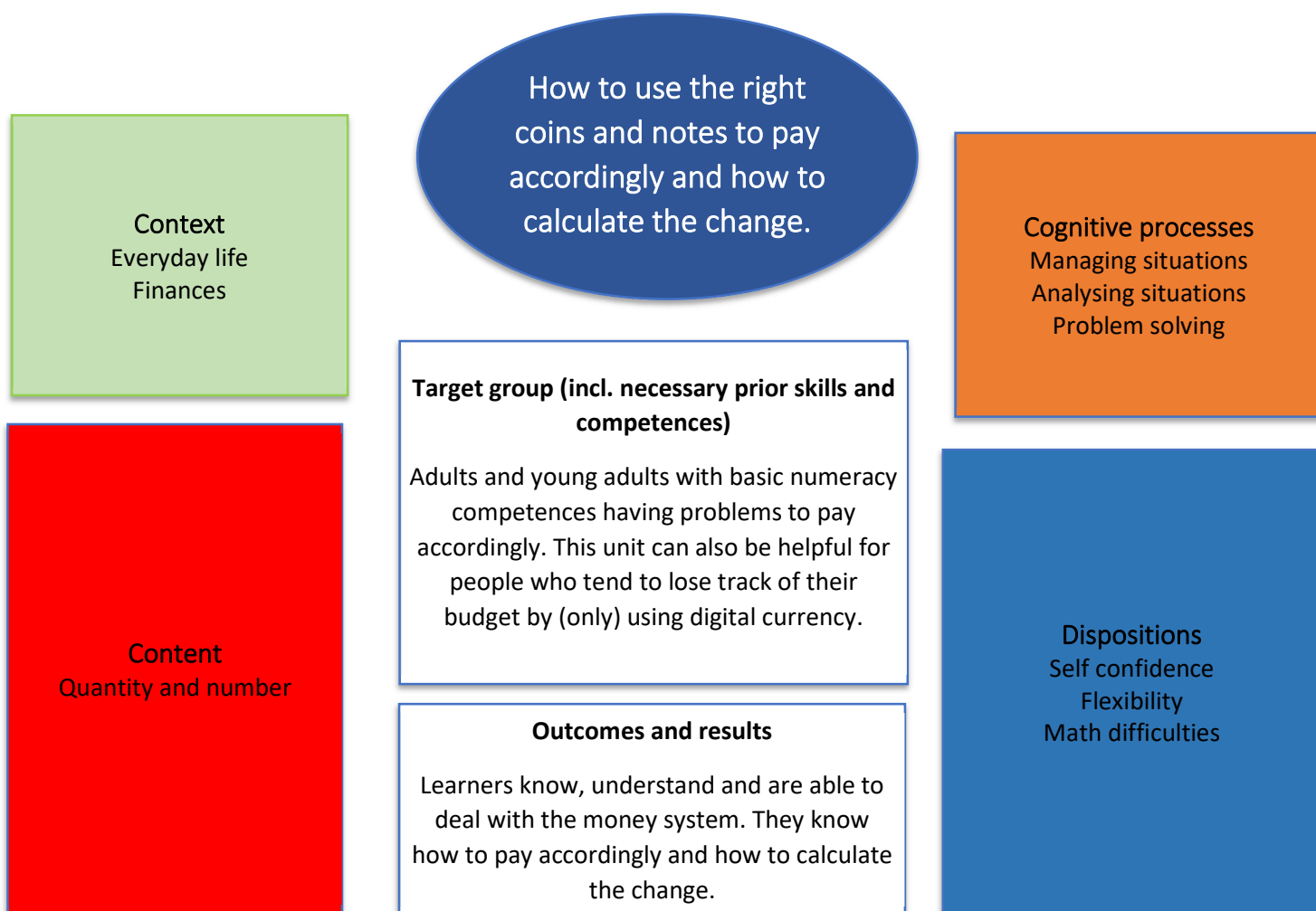
Too many coins and notes?

Paying recently has increasingly become an act of using a card that you hold or insert in front of an ATM machine. Paying with coins and paper money seems to disappear more and more even in supermarkets.

Many of us prefer the digital currency, which may lead to two consequences: We tend to lose track of our budget, as we don't really see or feel in our purse what is left for the week or month.

Furthermore, getting by in our money systems becomes more and more difficult. Instead of paying accordingly with different coins and notes, we tend to use a € 20 or € 50 note even for small invoice amounts without being able to imagine what we should get back.

Overview "Paying accordingly – too many coins and notes?"



Main information	
Content	Money system of coins and bills Whole numbers and decimal numbers, including addition and subtraction
Target group	Adults and young adults with basic numeracy competences having problems to pay accordingly. This unit can also be helpful for people who tend to lose track of their budget by (only) using digital currency.
Learning intention	What is the intention of adults to face this problem? – Numeracy for personal and private purposes
Duration	Approx. 1 lesson
Material and resources	Internet and beamer Video for awareness raising (see appendix 1) Pictures taken from advertising flyers or authentic flyers (appendix 2 and 3) Optional: Combine this learning unit with the example “invoice check”
Group size	Range from 5 to 12 learners
Problem statement	More and more people are using cards for payments instead of coins and cash, even for simple things like buying groceries. This shift in how we pay raises worries about understanding our finances and using money effectively in everyday situations.
Working questions	<ul style="list-style-type: none"> • Do the learners use cash or do they exclusively pay by card? Are they aware of the risks of using digital currency all the time? • Are students in track of their budget? • Do the learners know the money system with all coins and notes? • How to pay a certain product accordingly? • How to calculate the change?
Learning outcomes and results	The students are able to deal with the money system. They know how to pay accordingly and how to calculate the change.
Reference to National Qualification Frame	Optional (country’s decision)

Working plan

Time (lessons)	Description of content/activities	Material	Methodical and didactic information ¹
15 min.	<p>Activation: Place learners in the situation by showing them a humorous video taken at the supermarket checkout.</p> <p>Group discussion on the video:</p> <ul style="list-style-type: none"> • Do you know this kind of situations? • How did you feel when watching the video? • How do you pay when buying groceries – cash or by card? • Do you know all the coins and notes we have? • ... 	Internet, beamer Video on YouTube – see appendix 1	Putting the learners in a mathematical situation
30 min	<p>Activity: Pay accordingly Show the picture of a supermarket offer (e.g. for apples) and lead them through the activity:</p> <ul style="list-style-type: none"> • Can you pay appropriately for the apples? Which coins would you use in this situation? • Are there different possibilities of coins you can use to pay appropriately? • What do you get back if you pay with € 2 or € 5? • If you pay with a € 5 note, a cashier sometimes asks if you have 19 cents (or 20 cents). Do you have an idea why the cashier would ask you that? <p>Depending on the learners' needs, this kind of worked example can be repeated with other offers. It may also be useful to split the learners up in subgroups and working with those who still need support, while the</p>	<p>Supermarket offer (on apples) – see appendix 2</p> <p>Further pictures of offers or advertising flyers brought along by the teacher to memorize the strategies elaborated in the</p>	<p>Explicit teaching</p> <p>Worked example (to be used as a model)</p> <p>Remodeling</p> <p>Hands on learning</p>

¹ for description and explanation of kinds of tasks, HITs and other background information please consult the teachers' guide

	others work collaboratively on further examples.	worked example on the apples – See appendix 3 for examples	
n.a.	<p>Transfer and elaboration</p> <p>This learning unit can perfectly be combined with the example “invoice check” where learners analyze bills and invoices and train to check their change, also by using digital tools.</p>		



Suggestions for the teacher

The example presented here should be considered as exemplary and inspirational material presenting a guideline with a high range of possibilities of adapting those suggestions to a specific group of learners or an individual learner with his or her very personal requirements.

In concrete terms, the example “Paying accordingly – too many coins and notes?” could be adapted these ways:

- **Individualization and differentiation:** Depending on the learners’ individual needs, the group can be split up into various subgroups. The teacher may then guide those who still need support through some more worked examples, while the more independent learners already start working independently on further examples on ads.
- **Further or additional material:** Especially when dealing with coins, it can be useful for the learners to work with authentic material. The teacher can bring along a certain number of coins or also use (rather authentic) play money.
- **Dispositions taken into account:** The learners may know math anxiety and difficulties and therefore easily feel stressed by situations at the supermarket checkout, like the situation shown in the introduction video. Make sure that the learners don’t feel ridiculed by this video but explain that this is a humorous way to point out a difficult real-life situation.

Our educational activities aim at numeracy skills being not only memorized, but first of all being practiced and functionally used by the learners in daily life or/and vocational situations. It is therefore recommended to implement the idea of HITS² (higher impacts of teaching skills) as far and often as possible: ...

- ... work with concrete and authentic material that learners will recognize from everyday life situations.
- ... ask the learners questions and let them raise questions themselves. It can be crucial to discuss numeracy themes, contexts and numbers.
- ... think of possible ways of transfer: Motivate the learners to train their competences in everyday life situations when shopping. For this concrete example, it can be useful to be linked with the learning material “Invoice check”, like mentioned above.

² For general information and explanation on HITS please see the teachers’ guide

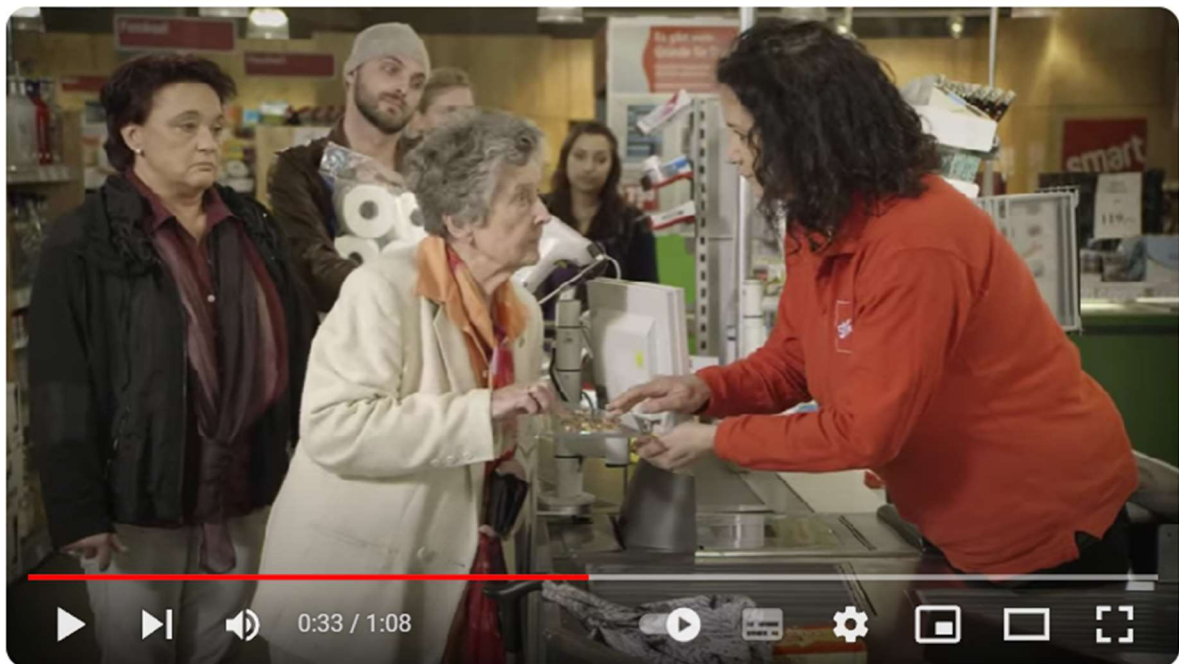


Appendix 1

Appendix 1 (activation): Spot on Youtube

The cinema spot "Grown old, stayed young" by the Frankfurt Association for Care of the Elderly and Disabled shows in a humorous way a difficult situation at the supermarket checkout. An elderly lady takes her time to pay accordingly and therefore searching for the appropriate coins – and strains the nerves of the people waiting in line behind her.

What is a bitter and often unpleasant reality for many, especially older people, turns out to be a humorous challenge among pensioners in this video...



Watch the video on Youtube:

[Neulich im Supermarkt \(youtube.com\)](https://www.youtube.com/watch?v=...) [28.12.2023]

Appendix 2

Appendix 2 (activity): Pay accordingly.

ZURÜCK ZUM URSPRUNG
BIO-Äpfel aus Österreich
Klasse II
1,5 kg

-27%
1,46/kg
per Packung
2,19
~~2,99~~

BIO

Österreich

The advertisement features a red background with three apples: two whole and one sliced. A yellow price tag in the top right corner shows a 27% discount from 2.99 to 2.19 per 1.46 kg pack. A small Austrian flag with a heart is in the bottom right, and a BIO logo is in the bottom left.

Appendix 3

Appendix 3 (activity): Pay accordingly – some more examples

<p>HOFFER MARKTPLATZ BIO-Tomaten Klasse I 500 g</p>  <p>-25% 2,98/kg per Packung 1,49 1,99</p>	<p>HALBER PREIS, DOPPELTE FREUDE! Nur mit Lidl Plus</p>  <p>400 g -50% 1,79²⁾ 0,89³⁾</p> <p>Lovillo Pizza-Mozzarella • Im Kühlregal *1 kg = 4,48 *1 kg = 2,23</p>
<p>per Packung 5,49 2,00/100 g</p>  <p>GOURMET SALAMI WÜRSTLICH WÜRSTLICH WÜRSTLICH 278 g x 1</p>	<p>TANDIL Vollwaschmittel Pulver • Classic oder • Duftig frisch 85 Waschgänge</p>  <p>10,99 0,11/Waschgang per Packung 9,49</p> <p>GÜNSTIGER SEIT 05.10.2022</p>
 <p>je Stk. -50% 0,99 0,49</p> <p>Würstelsnack • Mit Senf & Ketchup verfeinert</p>	<p>GOURMET FINEST CUISINE Profiteroles 350 g</p>  <p>TIEFGEKÜHLT</p> <p>per Packung 3,79 10,83/kg</p>
 <p>maxi.pack statt 6,29 REGIO Gold Bohne oder gemahlen, 500 g ab 2 Packungen (1 kg = 8,58) je 4,29 31 % BILLIGER</p>	 <p>RABATT AKTION 8,49 JETZT -25% 6,37</p> <p>Omo Pulver oder Flüssig 35 Wäschen oder Caps 24 Wäschen, verschiedene Sorten (1 WG = 0,18/0,27) SIE SPAREN 2,12</p>