



Munich Personal RePEc Archive

Framed Payslips and People's Reactions to Labor Tax Changes

Ghesla, Claus and Sonntag, Axel

Pöyry Management Consulting Austria, Institute for Advanced
Studies

December 2019

Online at <https://mpra.ub.uni-muenchen.de/97731/>
MPRA Paper No. 97731, posted 23 Dec 2019 12:12 UTC

Framed Payslips and People's Reactions to Labor Tax Changes

Claus Ghesla* Axel Sonntag†

December 20, 2019

Abstract

Payslips are supposed to notify employees about wage-related information, enabling them to adjust their labor supply, when appropriate. However, payslips are often information-laden and complex to understand, casting doubt on whether they are adequately up to the task, potentially resulting in inefficient labor supply reactions. In a real-effort laboratory experiment we use a variety of information frames to potentially support a better understanding of wage related information. We find that participants strongly react to changes of incidental wage costs, yet the framing of payslips has no additional effect on people's labor supply. Nevertheless, including simple graphics increases comprehension and readability.

Keywords framing, labor taxes, incidental wage costs, experiment

JEL-Codes C91, H29, J22

*Pöyry Management Consulting Austria, Euro Plaza Building J1, Kranichberggasse 2, 1120 Vienna. Austria. E-mail: claus.ghesla@poyry.com

† *Corresponding Author*. Institute for Advanced Studies, Insight Austria, Josefstädter Straße 39, 1080 Vienna, Austria. E-mail: sonntag@ihs.ac.at.

1 Introduction

In employment relations, employees typically receive regular payslips, indicating their salary received for a certain employment period. Such payslips often include information on gross wage, net wage and (parts of) incidental wage costs (IWC) such as income taxes or social insurance contributions. From a public policy perspective, it can be reasonable to legally require the regular distribution of salary information via payslips as this could help employees to avoid making inefficient labor market choices. While tax codes can be very specific in that payslips *should* be clear and comprehensible, there are typically no binding regulations with regard to their specific design, layout or framing.¹ In fact, many payslips actually appear to be rather information-laden and complex to understand. Employees, in turn, may not be able to fully comprehend the information provided. Based on their imperfect understanding, employees might fail to react accurately to changes in incidental wage costs, potentially resulting in inefficient labor market outcomes (e.g., Abeler and Jäger, 2015).

Over the last decade, applying behavioral economic interventions has become very popular in a variety of different public policy contexts (BIT, 2019; OECD, 2017). Among others, also the instrument of *framing* has been shown to lead to better perceptions of decision environments (e.g., Hossain and List, 2012; Kahneman, 2003; Kühberger, 1998). Therefore, in this research note, we report a laboratory experiment designed to analyze the effect of various framings of payslips on people’s reactions to changes in incidental wage costs. We use different framings based on insights of the behavioral design literature to make payslips easier to read. We expect that varying information framings differentially increases the salience and comprehension of applicable wage deductions and therefore has a nuanced impact on labor supply in the experiment.

We find that a change in the overall amount of incidental wages costs drastically affects output, while there is no differential effect of our framing efforts. Hence, we find no evidence that the framing of payslips changes labor supply decisions. Nevertheless, complementary results indicate that participants appreciate detailed non-technical and graphical information.

2 Experimental Design

We study the effects of framed payslips (between subjects) in an experimental labor market with changing incidental wage costs (within subject) in the lab. In order to observe potential changes in the efficiency of labor supply decisions, we use a real effort task that has convex costs of work and simultaneously provide a paid “free time” option (with constant earnings per time), resulting in an interior solution (Sausgruber et al., 2019).²

Subjects worked for four stages. After each stage, participants received a payslip, summariz-

¹For example, the Austrian income tax code (§ 78(5)) states: “The employer must provide the employee with a written, clear, comprehensible and complete statement of the salary (remuneration and expense allowances) paid in the calendar month . . .”

²For details see online appendix.

ing their task performance and money earnings.

Subjects were randomly allocated to one of six different information conditions. Participants in the control condition received a payslip that mimics payslips currently widely used in Austria. In the framing treatments, in addition to the status quo payslip, a cover sheet with additional information was provided. In the minimum treatment (MIN) subjects received a transparent listing of total personnel cost to the employer as well as gross and net income values.³ In the minimum gross treatment (MIN gross), subjects received additional information on the deductions on behalf of the employer and the employee, separately. In the minimum gross graphical treatment (MIN-G gross), additionally, a graph visualized the amount of deductions. In the minimum gross calender treatment (MIN-C gross), a calender icon denoted the amount of correctly solved letter sequences needed in order to pay the complete labor taxes.⁴ The maximum treatment (MAX-G gross) is the same as MIN-G gross, but provided an exhaustive list of all different positions of deductions rather than only their sums. Figure 1 provides a schematic overview. The actually used remuneration sheets are in the online appendix.

Figure 1: Schematic overview of experimental conditions



In order to control for potential *number size effects*, i.e., people judge numbers differently depending on their absolute size (e.g., Dehaene et al., 1998), we parameterized the experiment such that the expected income from the experiment (i.e., 2300 Tokens) - in numbers - closely corresponds to the actual average gross monthly income in Austria (i.e., 2300 €, Statistik Austria, 2019).

Specifically, subjects earned 300 experimental Tokens per correctly solved sequence of letters and received 200 experimental Tokens per 10 seconds in the free-time option, if applicable. Each stage lasted 180 seconds. These values remained constant across control and treatment conditions

³Total personnel cost is the sum of the net income of employees plus all incidental wage costs of both employers and employees. Gross income refers to net income plus the incidental wage costs on behalf of the employees only. Austria uses a progressive tax system, hence depending on the income level, employers and employees pay different shares of the total incidental wage costs.

⁴This treatment refers to a real-life application of the tax freedom day, i.e., the day in a given year when a person has earned enough income to just pay his/her taxes.

and also across the four stages. Participants' income (but not their earnings from the free-time option) was reduced by incidental wage costs (IWC).⁵ In the first two stages, these IWC were set to a value of 40% (average IWC for Austrian median income earners). In stages three and four, the IWC was exogenously either reduced to 20% or increased to 60% (within subject). With this element of the design it is possible to study whether our framing of the remuneration statements interacts with the amount of the deduction burden.

A total of 273 subjects participated in the experiment at the VCEE lab (University of Vienna). We recruited using ORSEE (Greiner, 2015) and implemented the experiment in oTree (Chen et al., 2016). Instructions were read aloud. Additionally, participants completed a short questionnaire with questions concerning their decision-making, demographics and attitudes towards the received remuneration statements.⁶ Subjects received payments for each of the stages, which were paid out in person and cumulatively at the end of the session. The average payment per subject was EUR 14.90. The average duration of the experiment was 50 minutes.

3 Results

Figure 2 shows the main results of our study. In all treatments subjects react markedly to changes of the incidental wage costs (IWC). When IWC decrease, the number of tasks solved increases, while the number of task falls, when IWC increase. The differences in distributions of tasks solved is significantly different between the two IWC changes (Kruskal Wallis test, $p < 0.001$). Furthermore, the results on this actual behavior are also in line with a stated measure on the perceived burden of deductions (see online appendix). Comparing participants' statements on whether the perceived burden on wage costs is high, those confronted with higher incidental wage costs also significantly attributed a *higher perceived burden* (t-test, $p < 0.001$).

While changes in IWC strongly affect labor supply, the framings do not. Controlling for the change of IWC, we find no additional effect of the framings on the number of tasks solved, neither for subjects with decreasing IWC (Kruskal Wallis test, $p = 0.566$) nor for those with increasing IWC ($p = 0.799$).⁷

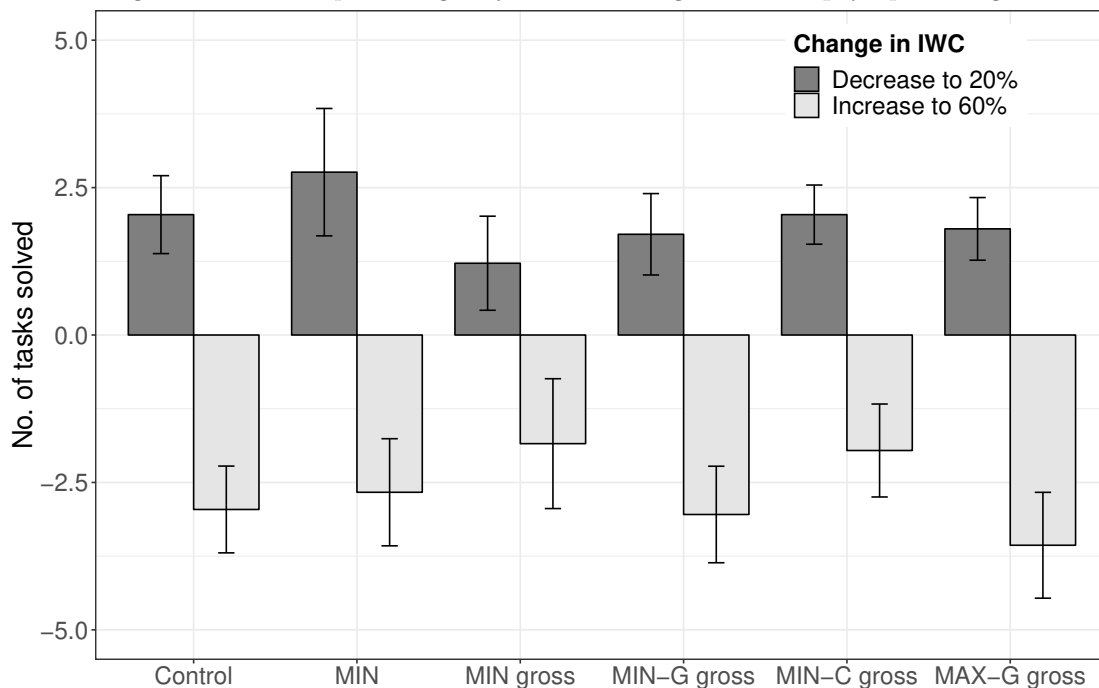
Complementary findings In addition to the main results, our behavioral and survey data shed light on how participants engaged with and perceived the differential framings of payslips. In terms of engagement with the payment slips we find that participants statistically significantly increase the time spent to view and study the payslips when compared to the control group (t-

⁵Note that participants were told that any deductions were collected by and remained with the experimenter. In order to avoid issues concerning deception, the instructions made clear that the payslips were displayed for illustrative purposes only. Nevertheless, judging by previous experimental results, this design choice should not interfere with identifying differential framing effects (Fleming and Zizzo, 2015).

⁶Materials can be found in the online appendix. Basic demographic characteristics such as age, gender, political attitudes and work experience do not vary across the experimental conditions (χ^2 -tests, all $p > 0.170$).

⁷While the incidental wage costs changed at the beginning of stage 3, we are interested in the potential change in labor supply after receiving an updated (framed) payslip at the end of stage 3. Thus, we report the most relevant comparison between stages 2 and 4.

Figure 2: Mean output changes by incidental wage costs and payslip framings



Note: Error bars denote standard errors of the mean.

tests, all $p < 0.050$).⁸ An exception to this observation is the comparison of viewing durations between MAX-G gross and the control group. Participants in this treatment do not spend more time viewing the payslip, despite it contained the most information of all treatments (t-test, $p = 0.556$). This suggests that subjects partially disregarded the information (possibly due to information overload). Moreover, in comparison to frames without graphical content (i.e., MIN, MIN gross, MIN-C gross), the graphical depiction of IWC in MIN-G gross seems to help participants to grasp information quicker (t-tests, all $p < 0.079$).

Furthermore, we asked subjects on their perceived level of informational value of the payslips on an 11-part Likert scale ranging from non informative (0) to very informative (10). Compared to the control condition none but the frame MAX-G was perceived to be significantly more informative (Kruskal Wallis test, $p = 0.024$). Thus, there seems to be a discrepancy between what people perceive to be of informational value and how they behave upon having this information.⁹

Does framing increase efficiency? Given the parametrization of the experiment, an optimal value for participants to switch to the free-time option can be estimated. As long as participants

⁸This observation may also be caused by the fact that participants in the framing conditions received the framed cover sheet in addition to the status quo payslip and thus had to ‘digest’ more information, by design.

⁹This finding is related to a literature that documents that intentions do not necessarily lead to corresponding behavior (see e.g., Sheeran and Webb, 2016)

complete a task within or below nine seconds, it is favorable for them to keep solving tasks. Above that value, participants should switch to the free-time option.¹⁰ Given the time spent on each task, we can assess the mean individual delta with regard to the optimal time per task. These mean differences can then be compared across experimental conditions in order to assess whether less complex and more informational remuneration sheets improve the quality of decision making across our experimental conditions. However, an analysis of stage two work behavior (the stage after participants have received payslips for the first time) reveals that there are no statistical differences when comparing participants' decision quality across treatments with the control group (t-tests, all $p > 0.266$).

4 Conclusion

We report on an experiment designed to analyze the effect of differential framings of payslips on people's perceptions of and reactions to changes in incidental wages costs such as labor taxes and social security contributions. While behavioral interventions such as framings have been shown to be effective in many domains (Tversky, 2013; De Martino et al., 2006), our results clearly show that they might cease to trigger behavioral reactions if the perception of the underlying economic fundamentals is relatively strong.

Clearly, more research is needed to achieve a deeper insight of what the behavioral intervention of *framing* can and cannot achieve in diverse (public policy) settings. While framing - in principle - could be an effective intervention, in our experiment, it did not reduce complexity or increase the informational value conveyed in specifically layouted payslips. Therefore, our finding begs the question to what extent framing can be successful in related domains where regular reporting is mandatory, but the exact framing of which is not subject to strict regulation such as for bank statements or utility bills.

Declaration of interest statement

The authors have no declarations to be made.

Acknowledgments

We thank Dominik Futschik, Alfred Heiter, Martin Kocher, Susanne Stissen, and Clemens Wallner for helpful discussions and comments. We thank Hernán Villamizar for research assistance. We are grateful to the Federation of Austrian Industries for financial support (project number: 300269).

¹⁰This example is applicable when incidental wage costs amount for 40%. In the case of incidental wages costs of 20% and 60% subjects should switch to the free-time option after 12 and 6 seconds on solving the task, respectively.

References

- Johannes Abeler and Simon Jäger. Complex tax incentives. *American Economic Journal: Economic Policy*, 7: 1–28, 2015. ISSN 1945-7731. doi: 10.1257/pol.20130137.
- BIT. Annual report 2017-18. Technical report, The Behavioural Insights Team, 2019.
- Daniel L Chen, Martin Schonger, and Chris Wickens. otree—an open-source platform for laboratory, online, and field experiments. *Journal of Behavioral and Experimental Finance*, 9:88–97, 2016.
- Benedetto De Martino, Dharshan Kumaran, Ben Seymour, and Raymond J Dolan. Frames, biases, and rational decision-making in the human brain. *Science*, 313(5787):684–687, 2006.
- Stanislas Dehaene, Ghislaine Dehaene-Lambertz, and Laurent Cohen. Abstract representations of numbers in the animal and human brain. *Trends in Neurosciences*, 21(8):355 – 361, 1998. ISSN 0166-2236. doi: [https://doi.org/10.1016/S0166-2236\(98\)01263-6](https://doi.org/10.1016/S0166-2236(98)01263-6). URL <http://www.sciencedirect.com/science/article/pii/S0166223698012636>.
- Piers Fleming and Daniel John Zizzo. A simple stress test of experimenter demand effects. *Theory and Decision*, 78:219–231, 2015.
- Ben Greiner. Subject pool recruitment procedures: organizing experiments with orsee. *Journal of the Economic Science Association*, 1(1):114–125, 2015.
- Tanjim Hossain and John A List. The behavioralist visits the factory: Increasing productivity using simple framing manipulations. *Management Science*, 58(12):2151–2167, 2012.
- Daniel Kahneman. Maps of bounded rationality: Psychology for behavioral economics. *American Economic Review*, 93:1449–1475, 2003.
- Anton Kühberger. The influence of framing on risky decisions: A meta-analysis. *Organizational behavior and human decision processes*, 75(1):23–55, 1998.
- OECD. *Behavioural Insights and Public Policy: Lessons from Around the World*. OECD Publishing, 2017.
- Rupert Sausgruber, Axel Sonntag, and Jean-Robert Tyran. Disincentives from redistribution: Evidence on a dividend of democracy. *CEPR Discussion Paper No. DP13773*, 2019.
- Pascal Sheeran and Thomas L Webb. The intention–behavior gap. *Social and personality psychology compass*, 10(9):503–518, 2016.
- Statistik Austria. Brutto- und Nettojahreseinkommen der unselbstständig Erwerbstätigen 1997-2017, 2019. URL http://www.statistik.at/web_de/statistiken/menschen_und_gesellschaft/soziales/personen-einkommen/jaehrliche_personen_einkommen/index.html.
- Amos Tversky. Choices, values, and frames. *Handbook Of The Fundamentals Of Financial Decision Making (In 2 Parts)*, 4:269, 2013.

Online Appendix

A Further results

A.1 Descriptive statistics

Table A1 contains some descriptive statistics of the control variables used in the experiment. None of the control variables does vary statistically significantly across treatments, with one notable exception: the perceived informativeness of the payslips.

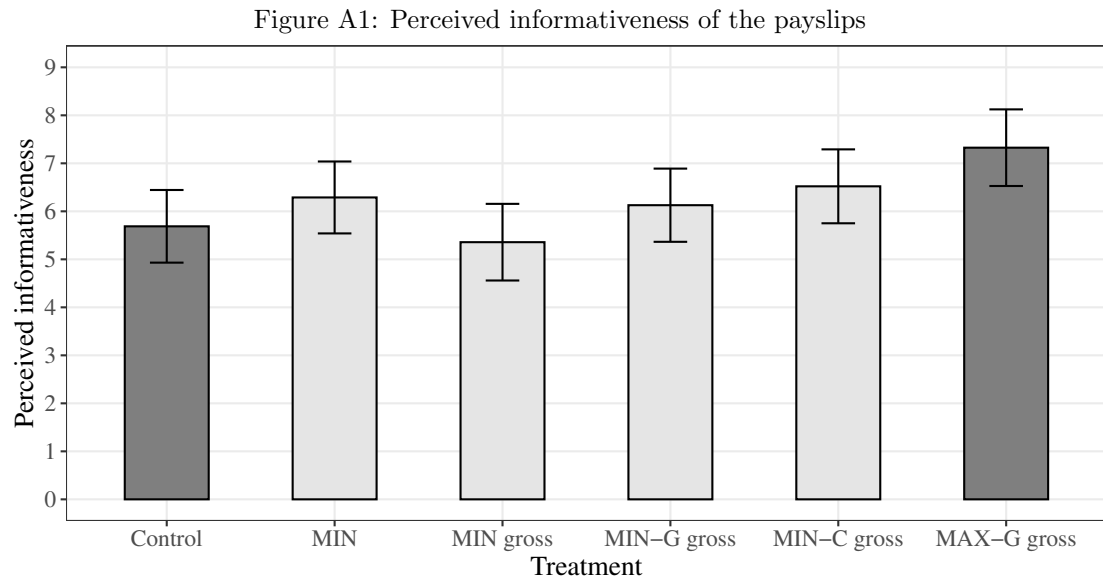
Table A1: Descriptive statistics

	Control	MIN gross	MIN	MIN-G gross	MIN-C gross	MAX-G gross
Age	26.10 (24.5)	24.9 (24)	23.27 (23)	24.53 (23)	23.67 (23)	24.91 (23)
Male	0.48 (0)	0.50 (0.5)	0.44 (0)	0.51 (1)	0.50 (0.5)	0.53 (1)
Political preferences	3.54 (3)	3.64 (3)	3.51 (3)	3.77 (3)	3.50 (3)	3.77 (4)
Work experience	24.44 (12)	37.55 (14.5)	17.11 (16)	14.91 (12)	17.40 (12)	21.67 (12)
Informative payslips	5.69 (6)	5.36 (5)	6.29 (6)	6.13 (6)	6.52 (7)	7.33 (8)
Deductions too high	6.98 (7)	7.07 (7)	6.93 (7)	7.02 (7)	7.15 (7)	7.09 (8)
Behavior affected	0.38 (0)	0.43 (0)	0.42 (0)	0.34 (0)	0.35 (0)	0.47 (0)

Note: This table contains means (medians in parentheses)

A.2 Perceived level of information value

Since more information does not necessarily lead to higher perceived informativeness of the information provided (e.g. because of information overload, unclear presentation etc.), we elicited the subjective perceived informativeness of the payslips presented. As depicted in Figure A30, the questions asked was “How informative did you find the payslips received in the individual sections?” and subjects could respond on an 11-part Likert scale ranging from 0 (“not informative”) to 10 (“very informative”).

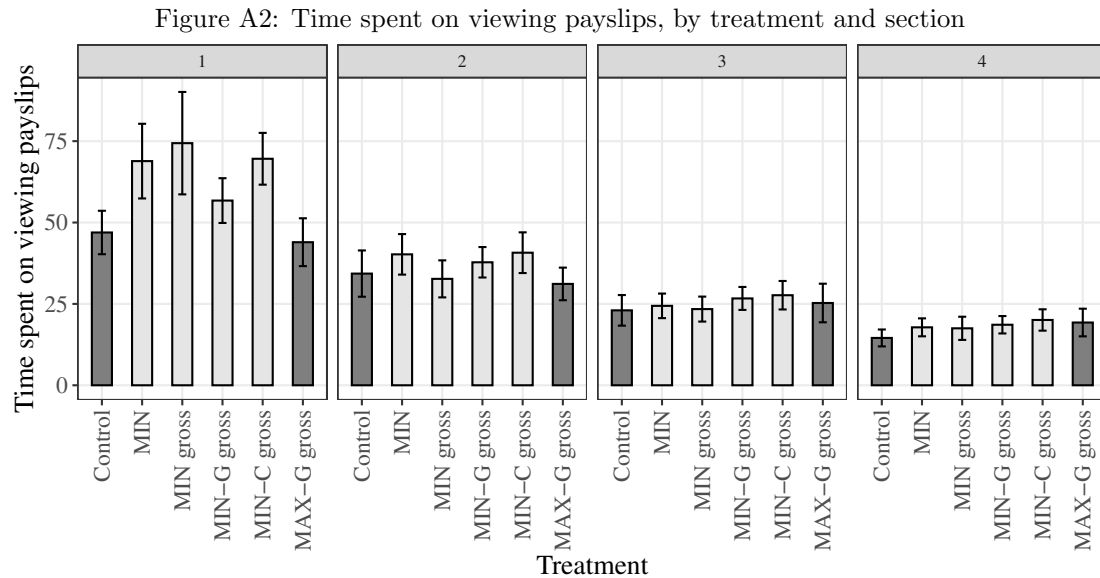


Note: Mean responses and 95% confidence intervals

Figure A1 shows a bar graph of the mean responses per treatment as well as 95% confidence intervals. The only treatment in which the informativeness score differs significantly from the score of the control treatment is in MAX-G gross, i.e., subjects indicate that they feel best informed when receiving the full information vector of all deductions.

A.3 Time spent

Figure A2 shows how long subjects viewed the information provided on the payslips.



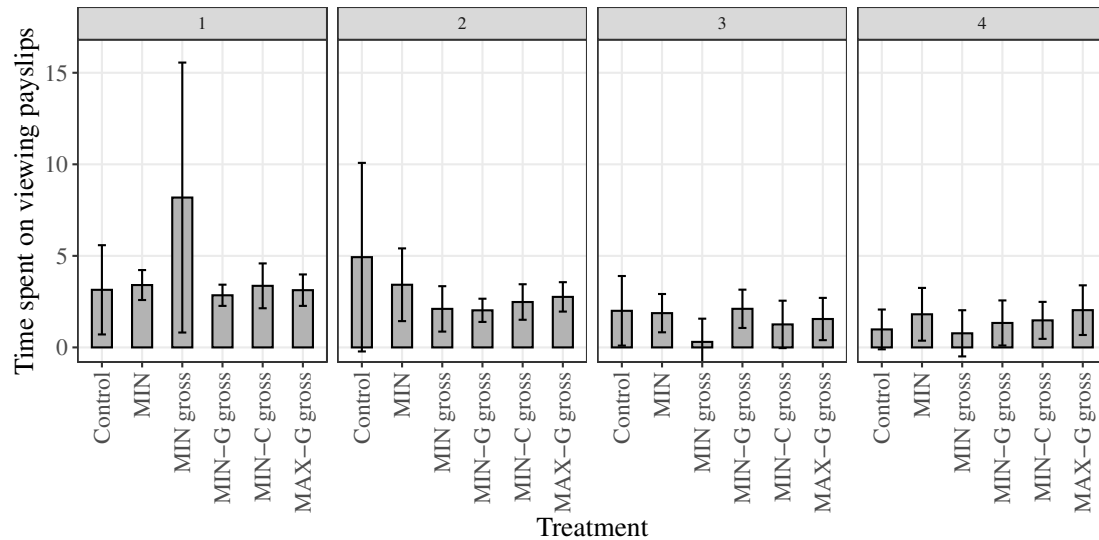
Note: Mean viewing times in seconds and 95% confidence intervals

The first observation is that subjects became faster over time (on average 13.7 seconds per period, linear regression: $p < 0.001$). This is not surprising since it is natural that one needs a bit longer to get accustomed to certain ways information is presented, but after this learning phase, information acquisition happened significantly faster.

The second observation is that while there are large time differences across treatments in section 1 (variance: 1214), these differences become much smaller in section 4 (variance: 122, Levene's test: $p < 0.001$). Interestingly though, the difference between the Max-G gross and the control condition is never statistically significant (Ranksum tests: all $p > 0.100$ suggesting that the rich information provided under Max-G gross might not have been viewed in much detail - or was probably even (partially) disregarded).

A.4 Efficiency of labor supply

Figure A3: Inefficient overwork, by treatment and section



Note: Mean overtime worked (above the rational switching point, see Appendix B) in seconds and 95% confidence intervals

The efficiency of labor supply was not affected by our treatment manipulation, i.e., subjects did not react more or less rationally to the different framings of pay slips (Kruskal Wallis tests, in all sections: $p > 0.100$).

B Task details

Subjects generated surplus by counting the frequency of the letter ‘a’ in a sequence of letters. At first they counted short sequences, which gradually increased in difficulty over time. This task is simple yet tedious and does not require pre-existing knowledge or mathematical skills.

In each stage they received information on timing aspects, such as how much time they had used for the current sequence, the time used for the last sequence and the time remaining in a particular stage. Within stages, participants additionally had the option to stop working and switch to a “free-time” option.

For each correctly solved sequence participants earned 300 Tokens and for every 10 seconds spent in free-time they received 200 Tokens. Note that while there were 40% deducted from any earnings from solving sequences, but not from earnings in free time, each participant should switch from working on solving the sequences to free time if he/she takes more than $(1 - 0.4) \times 300/200 \times 10 = 9$ seconds.

C Instructions / screenshots

The experiment was held in German. Thus, all screenshots are in German language. Since all instructions were only available on screen, a translated version of the instruction texts is provided below of each screen.

Figure A4: Screen 01



Herzlich willkommen!

Screen 01 - English

Welcome!

Figure A5: Screen 02

Herzlich Willkommen!

Vielen Dank für Ihre heutige Teilnahme an dieser Studie. Bitte folgen Sie den nachfolgenden Instruktionen aufmerksam. Diese Erklärungen sind für alle TeilnehmerInnen identisch.

Während der Studie herrscht ein absolutes Kommunikationsverbot. Die Benutzung von Handys ist verboten. Bitte schalten Sie diese aus.

Ihre Entscheidungen und Eingaben sind anonym, d.h. Ihre persönliche Identität kann Ihren Entscheidungen nicht zugeordnet werden.

Für Darstellungszwecke innerhalb der Studie bitten wir Sie Ihren Namen und Ihre Computernummer einzugeben. Beide Datenfelder werden nicht durch die Studienleitung ausgewertet und auch nicht anderen TeilnehmerInnen innerhalb der Studie bekannt gemacht. Für die Analyse werden diese Datenfelder sofort nach dem Experiment gelöscht.

Wie heißen Sie?

Anrede:

Computernummer:

Sollten Sie während der Studie Fragen haben, heben Sie bitte die Hand. Ein(e) StudienleiterIn wird zu Ihnen an den Tisch kommen und Ihre Fragen beantworten.

Abhängig von Ihren Entscheidungen können Sie Geld verdienen, welches Ihnen unmittelbar nach der Studie bar ausbezahlt wird. Wie viel Geld Sie verdienen, hängt von Ihren eigenen Entscheidungen in der Studie ab.

In dieser Studie können Sie unterschiedliche Aufgaben bearbeiten. Auf den nächsten Seiten geben wir Ihnen hierzu weitere Instruktionen. Stellen Sie für sich sicher, dass Sie die Instruktionen verstanden haben, bevor Sie mit der nächsten Seite fortfahren. Sie haben keine Möglichkeit diese Erklärungen erneut anzusehen.

Haben Sie Fragen?

Fortfahren

Screen 02 - English

Welcome!

Thank you for your participation in this study today. Please follow the following instructions carefully. These explanations are identical for all participants.

There is an absolute ban on communication during the study. The use of mobile phones is prohibited. Please turn them off.

Your decisions and inputs are anonymous, i.e. your personal identity cannot be assigned to your decisions.

For presentation purposes within the study, please enter your name and computer number. Both data fields will not be evaluated by the study management and will not be disclosed to other participants within the study. For the analysis these data fields will be deleted immediately after the experiment.

If you have any questions during the study, please raise your hand. An experimenter will come to your table and answer your questions.

Depending on your decisions, you can earn money which will be paid to you in cash immediately after the study. How much money you earn depends on your own decisions in the study.

In this study you can work on different tasks. On the following pages we will give you further instructions. Make sure you understand the instructions before proceeding to the next page. You will not be able to view these instructions again.

Do you have any questions?

Continue

Figure A6: Screen 03

Anleitung

In jedem Abschnitt dieser Studie können Sie sich entscheiden, ob und wieviel Sie arbeiten wollen.

Ihre Aufgabe ist es innerhalb von 3 Minuten Arbeitsaufgaben zu erledigen. Die Arbeitsaufgaben bestehen darin, aus einer Sequenz von Buchstaben, die **korrekte Anzahl des Buchstaben "a"**, zu zählen.

In jedem Abschnitt der Studie können Sie selbst entscheiden, wie viele Arbeitsaufgaben Sie lösen möchten. Pro gelöster Arbeitsaufgabe erhalten Sie **300 Token (Tk)**.

Sie können in jedem Abschnitt der Studie auch entscheiden, nicht zu arbeiten und die so genannte „Freizeit-Option“ wählen. Für jede 10 Sekunden, welche Sie in der Freizeit-Option verbringen, erhalten Sie **200 Token (Tk)**. Die Berechnung erfolgt dabei pro Sekunde, d.h. wenn Sie z.B. 14 Sekunden in der Freizeit-Option verbringen, erhalten Sie 280 Token. Da die Schwierigkeit der Arbeitsaufgabe mit jeder Buchstaben-Sequenz ansteigt, gibt es einen Zeitpunkt, bei dem es besser ist die „Freizeit-Option“ zu wählen.

Ein Beispiel:

Ihr Verhalten	Zeit	Anzahl gelöster Sequenzen	Einnahmen	Auszahlungsmodalität
Buchstaben-Sequenzen	90 Sekunden	10	3000	300 Token pro Sequenz
Freizeit-Option	90 Sekunden	--	1800	200 Token pro 10 Sekunden
Total	180 Sekunden		4800	

Screen 03 - English

Instructions

In each section of this study, you can decide whether and how much you want to work.

Your task is to complete tasks within 3 minutes. The tasks consist of counting from a sequence of letters, the correct number of letters “a”.

In each section of the study, you can decide for yourself how many tasks you want to solve. You will receive 300 tokens (Tk) per task solved.

You can also decide in any section of the study not to work and choose the so-called “leisure option”. For every 10 seconds you spend in the Leisure Option, you will receive 200 tokens (Tk). The calculation is made per second, i.e. if, for example, you spend 14 seconds in the leisure option, you will receive 280 tokens. Since the difficulty of the task increases with each letter sequence, there is a time when it is better to choose the “Leisure Option”.

Figure A7: Screen 04

Anleitung

Auf der nächsten Seite haben Sie die Möglichkeit die Arbeitsaufgabe auszuprobieren. Sie erhalten unterschiedliche Buchstaben-Sequenzen, um einen guten Überblick über die Aufgaben zu erhalten. Um eine Antwort zu einer Sequenz abzugeben, drücken Sie „Enter“. Wenn Ihre Antwort korrekt ist, wird die nächste Sequenz angezeigt. Falls Ihre Antwort nicht korrekt ist, bekommen Sie die gleiche Sequenz wieder angezeigt.

Der **Timer in blau** gibt Ihnen an wie lange Sie sich schon mit der aktuellen Arbeitsaufgabe beschäftigen. Dieser Timer startet für jede Buchstaben-Sequenz neu.

Der **Timer in gelb** neben dem Eingabefeld zeigt Ihnen an, wie lange Sie für die Lösung der vorangegangenen Arbeitsaufgabe gebraucht haben.

In **grün** wird Ihnen die Anzahl der richtig gelösten Buchstaben-Sequenzen angezeigt.

Ganz oben auf dem Bildschirm wird Ihnen die verbleibende Zeit innerhalb des Abschnittes angezeigt.

Die Freizeit-Option können Sie rechts auf dem Bildschirm auswählen.

Auf der nächsten Seite wird Ihnen genau erklärt wie die Arbeitsaufgabe abläuft und Sie bekommen die relevante Information (Timer, Sequenzen, Eingabefeld, Freizeit-Option) erklärt.

Haben Sie Fragen?

Screen 04 - English

Instructions

On the next page you have the possibility to try out the task. You will get different sequences of letters to get a good overview of the tasks. To give an answer to a sequence, press “Enter”. If your answer is correct, the next sequence will be displayed. If your answer is incorrect, you will see the same sequence again.

The timer in blue indicates how long you have been working on the current task. This timer restarts for each letter sequence.

The timer in yellow next to the input field shows you how long it took you to solve the previous task.

The number of correctly solved letter sequences is displayed in green.

At the top of the screen you will see the remaining time within the section.

You can select the leisure option on the right side of the screen.

On the next page, you will be explained exactly how the work task works and you will get the relevant information (timer, sequences, input field, leisure option) explained.

Do you have any questions?

Figure A8: Screen 05

Beispiele der Buchstaben-Sequenzen

Sie finden auf dieser Seite Beispiele von Buchstaben-Sequenzen. Alle relevanten Elemente (unterschiedliche Timer, Anzahl gelöster Sequenzen und die Freizeit-Option) werden hier erklärt. Klicken Sie bitte auf „Tour starten“, um alle Elemente erklärt zu bekommen.

Machen Sie sich mit den Elementen vertraut und versuchen Sie einige Buchstaben-Sequenzen zu lösen. Gelöste Sequenzen werden nicht auf Ihre Auszahlung angerechnet.

[Tour starten](#)

Verbleibende Zeit für diesen Abschnitt: 3:00

7 Sek
0

vbnyxbaqd

0 Sek

[Freizeit-Option](#)

Screen 05 - English

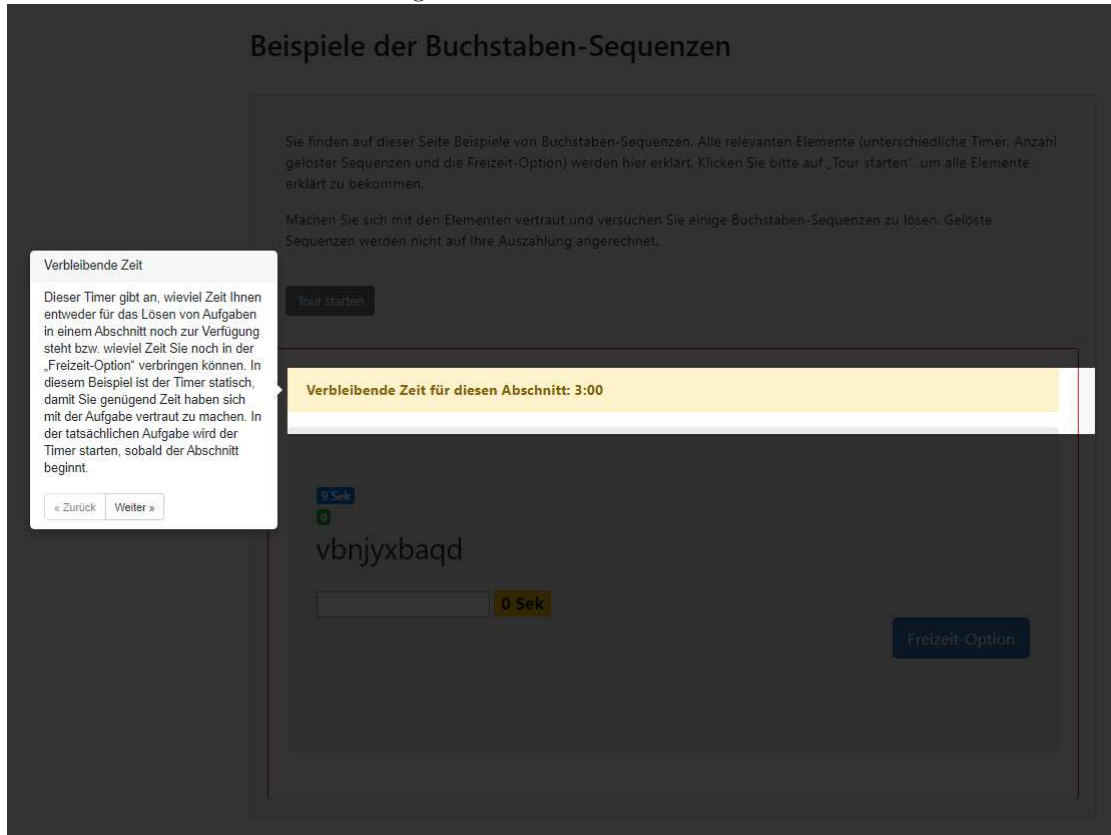
Examples of sequences of letters

On this page you will find examples of sequences of letters. All relevant elements (different timers, number of solved sequences and the leisure option) are explained here. Please click on “Start Tour” to get all elements explained.

Familiarize yourself with the elements and try to solve some letter sequences. Solved sequences will not count towards your payoff.

Start Tour

Figure A9: Screen 05 - Tour 1

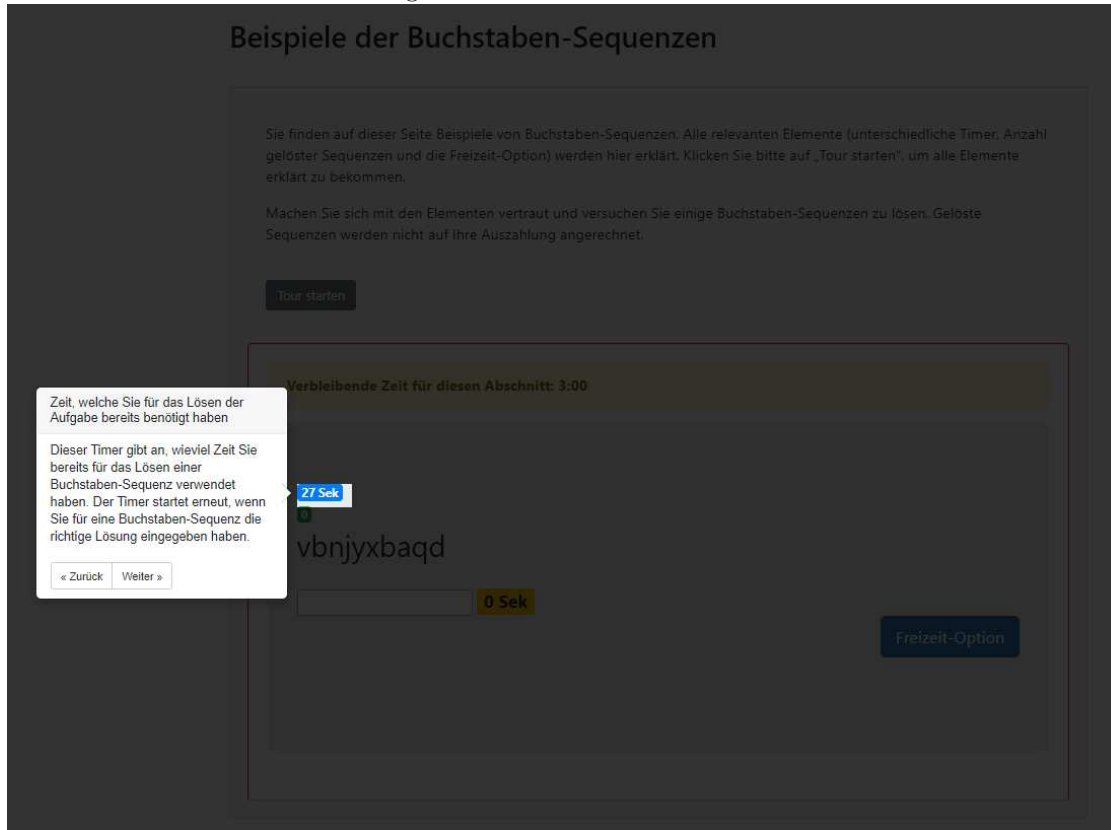


Screen 05 - Tour 1 - English

Time remaining

This timer indicates how much time you have left either for solving tasks in a section or how much time you can spend in the “Leisure Option”. In this example, the timer is static so that you have enough time to familiarize yourself with the task. In the actual task, the timer will start as soon as the section starts.

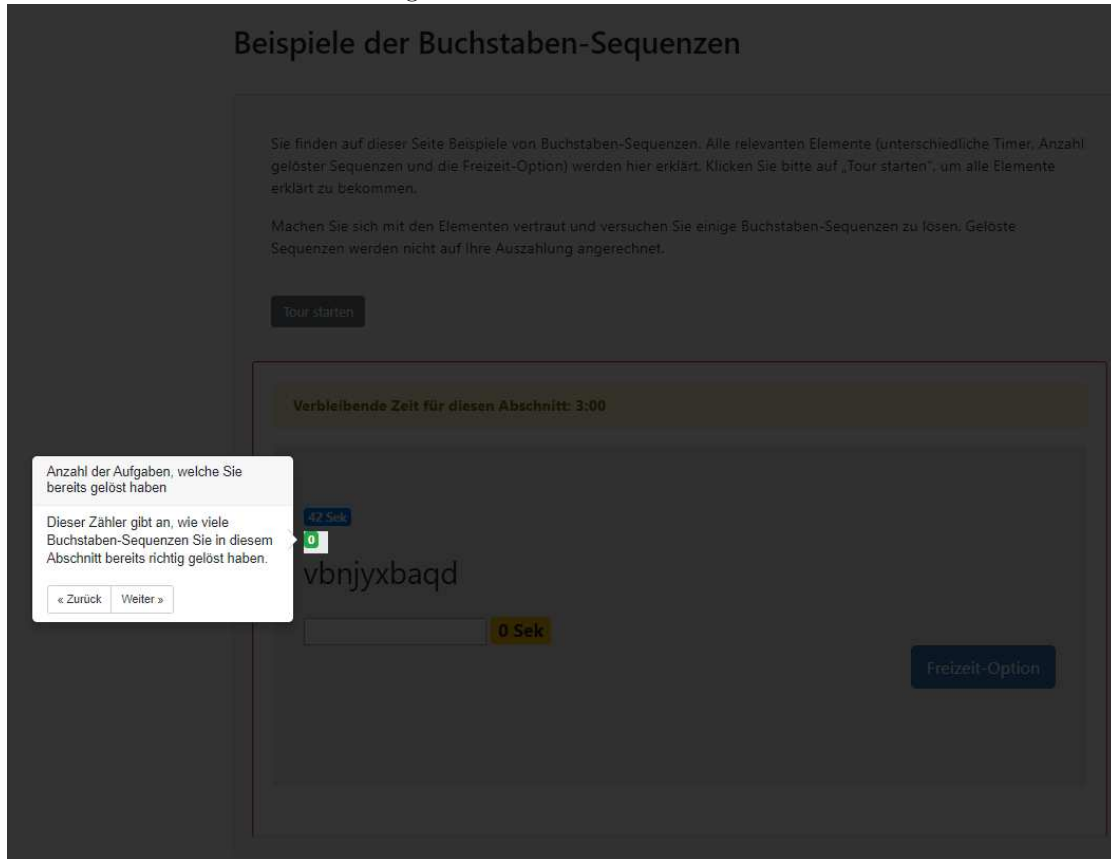
Figure A10: Screen 05 - Tour 2



Screen 05 - Tour 2 - English

This timer indicates how much time you have already spent solving a letter sequence. The timer restarts when you have entered the correct solution for a letter sequence.

Figure A11: Screen 05 - Tour 3



Screen 05 - Tour 3 - English

This counter indicates how many letter sequences you have already solved correctly in this section.

Figure A12: Screen 05 - Tour 4

Beispiele der Buchstaben-Sequenzen

Sie finden auf dieser Seite Beispiele von Buchstaben-Sequenzen. Alle relevanten Elemente (unterschiedliche Timer, Anzahl gelöster Sequenzen und die Freizeit-Option) werden hier erklärt. Klicken Sie bitte auf „Tour starten“, um alle Elemente erklärt zu bekommen.

Machen Sie sich mit den Elementen vertraut und versuchen Sie einige Buchstaben-Sequenzen zu lösen. Gelöste Sequenzen werden nicht auf Ihre Auszahlung angerechnet.

[Tour starten](#)

Verbleibende Zeit für diesen Abschnitt: 3:00

57 Sek

0

vbnyxbaqd

0 Sek

[Freizeit-Option](#)

Zeit, welche Sie für das Lösen der vorherigen Aufgabe benötigt haben

Dieser Timer gibt an, wie viele Sekunden Sie für die Lösung der **vorherigen** Buchstaben-Sequenz gebraucht haben.

[« Zurück](#) [Weiter »](#)

Screen 05 - Tour 4 - English

This timer indicates how many seconds it took you to solve the previous letter sequence.

Figure A13: Screen 05 - Tour 5

Beispiele der Buchstaben-Sequenzen

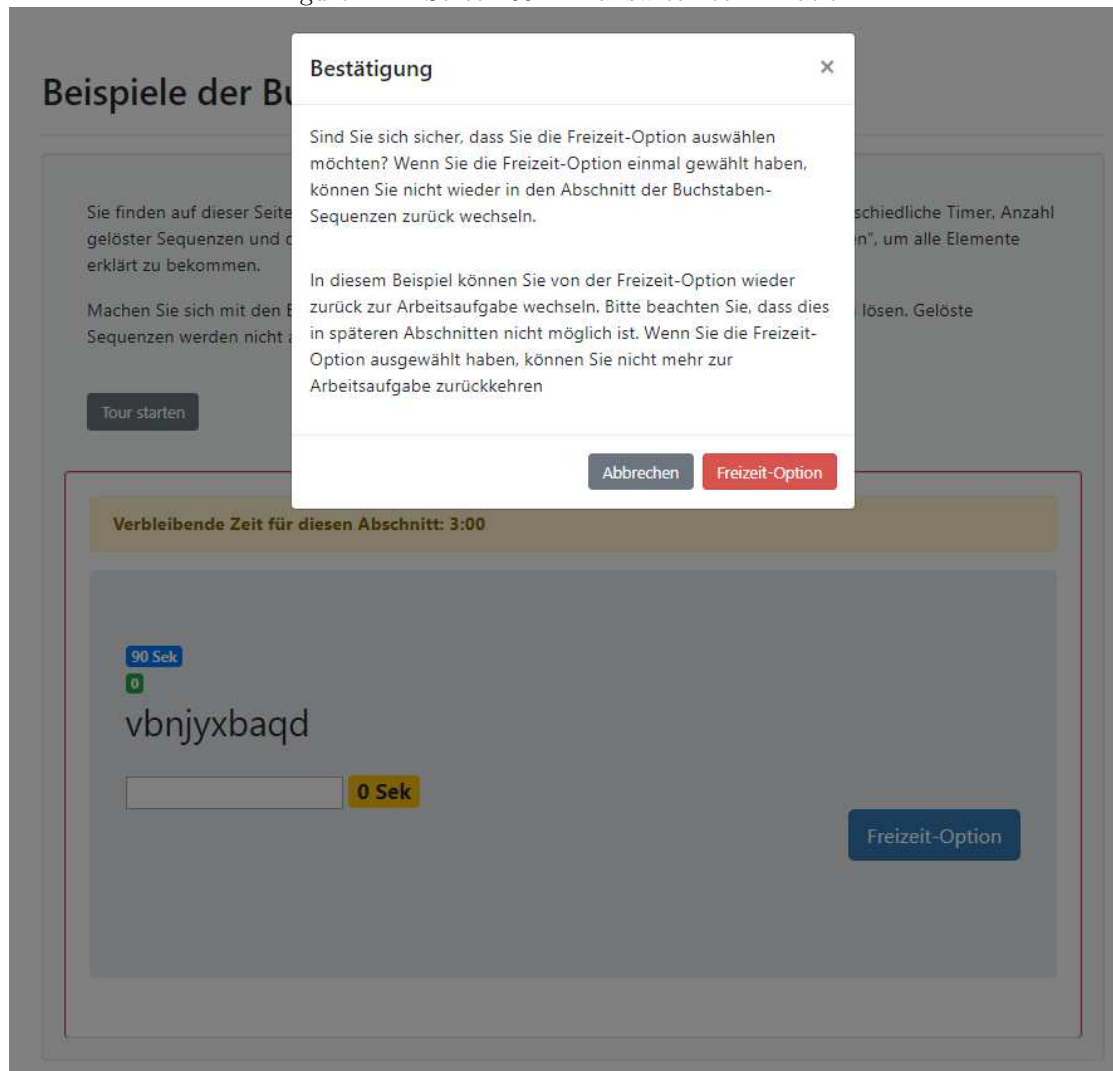
The screenshot shows a German language learning interface. At the top, there is a light blue box with text explaining the purpose of the page: to provide examples of letter sequences and explain various elements like timers and the 'Freizeit-Option'. Below this is a 'Tour starten' button. The main area features a yellow banner indicating 'Verbleibende Zeit für diesen Abschnitt: 3:00'. Below the banner, a puzzle is displayed with the sequence 'vbnjybaqd'. To the left of the sequence is a timer showing '71 Sek' and a counter showing '0'. Below the sequence is an input field and a '0 Sek' timer. To the right of the input field is a blue button labeled 'Freizeit-Option'. A tooltip titled 'Freizeit-Option' is open, providing instructions: 'Wenn Sie diese Option auswählen, müssen Sie dies zuerst bestätigen. Wenn Sie die Freizeit-Option einmal gewählt haben, können Sie nicht wieder in den Abschnitt der Buchstaben-Sequenzen zurück wechseln.' Below the tooltip, there is a prompt: 'Versuchen Sie nun eine korrekte Antwort für die bestehende Buchstaben-Sequenz zu geben und beobachten Sie, wie sich die unterschiedlichen Timer und Zähler verändern.' At the bottom of the tooltip are buttons for '« Zurück', 'Weiter »', and 'Tour beenden'.

Screen 05 - Tour 5 - English

If you select this option, you must confirm this first. Once you have selected the Leisure option, you cannot return to the letter sequence section.

Now try to give a correct answer for the existing letter sequence and observe how the different timers and counters change.

Figure A14: Screen 05 - Trial switch confirmation



Screen 05 - Trial switch confirmation - English

Are you sure you want to choose the Leisure Option? Once you have selected the Leisure Option, you cannot return to the Letter Sequences section.

In this example, you can switch back from the Leisure Option to the Work task. Please note that this is not possible in later sections. Once you have selected the Leisure Option, you cannot return to the work item.

Figure A15: Screen 05 - Trial switch screen

Beispiele der Buchstaben-Sequenzen

Sie finden auf dieser Seite Beispiele von Buchstaben-Sequenzen. Alle relevanten Elemente (unterschiedliche Timer, Anzahl gelöster Sequenzen und die Freizeit-Option) werden hier erklärt. Klicken Sie bitte auf „Tour starten“, um alle Elemente erklärt zu bekommen.

Machen Sie sich mit den Elementen vertraut und versuchen Sie einige Buchstaben-Sequenzen zu lösen. Gelöste Sequenzen werden nicht auf Ihre Auszahlung angerechnet.

Tour starten

Verbleibende Zeit für diesen Abschnitt: 3:00

Sie sind nun in der "Freizeit-Option"

Sie haben **0** Sequenzen gelöst.

Sie würden in der Freizeit-Option erhalten:

80 Tokens

In diesem Beispiel können Sie von der Freizeit-Option wieder zurück zur Arbeitsaufgabe wechseln. Bitte beachten Sie, dass dies in späteren Abschnitten nicht möglich ist. Wenn Sie die Freizeit-Option ausgewählt haben, können Sie nicht mehr zur Arbeitsaufgabe zurückkehren.

Aufgabe erneut starten

Screen 05 - Trial switch screen - English

You have solved 0 sequences.

You would get in the Leisure Option: 80 Tokens In this example, you can switch back from

the Leisure Option to the work item. Please note that this is not possible in later sections. Once you have selected the free time option, you cannot return to the work item.

Figure A16: Screen 06

Bezahlungsmodalitäten

Diese Studie besteht insgesamt aus vier Abschnitten in denen Sie Arbeitsentscheidungen treffen müssen, welche schlussendlich Ihre Auszahlung beeinflussen können. Für jede korrekt-gelöste Buchstaben-Sequenz erhalten Sie 300 Token (TK).

Ihre Auszahlung wird durch die Summe der erzielten Token in allen Abschnitten errechnet. 100 Token entsprechen dabei:

100 Token = 0,10 EUR

Sie beginnen jeden Abschnitt jeweils mit der Lösung von kurzen Buchstaben-Sequenzen. Die Länge der Sequenzen wird stetig erhöht. Die Sequenzen und Ihre Reihung sind für alle TeilnehmerInnen identisch. Ebenso müssen alle TeilnehmerInnen den gleichen Buchstaben "a" zählen, sodass alle vor der gleichen Aufgabe stehen.

Screen 06 - English

Payment modalities

This study consists of a total of four sections in which you must make work decisions that can ultimately affect your payoff. For each correctly solved letter sequence you will receive 300 Tokens (TK).

Your payout will be calculated from the sum of the tokens obtained in all sections. 100 Tokens correspond to this:

100 Tokens = 0.10 EUR

You start each section with the solution of short letter sequences. The length of the sequences is constantly increased. The sequences and their order are identical for all participants. All participants must also count the same letter "a", so that they all face the same task.

Figure A17: Screen 07

Abzüge

Ihre **Arbeitsleistung** innerhalb der Studie wird, wie im echten Leben, **Abzügen unterworfen**. Das heißt, dass auf Ihre erwirtschaftete Leistung (d.h. auf die Einnahmen durch die Anzahl der gelösten Aufgaben) Abzüge entfallen. **Diese Abzüge liegen bei 40,0%**.

Beispiel:

Sie lösen 10 Arbeitsaufgaben während eines Abschnittes. Sie erhalten hierfür 3000 Token.

Von dieser Anzahl an Token fallen 40,0% (1200 Token) an Abzügen an.

Es verbleiben Ihnen 1800 Token für Ihre Auszahlung + die Token aus der Freizeit-Option.

Screen 07 - English

Deductions

Your work performance within the study will be subject to deductions, as in real life. This means that deductions are made for your earned performance (i.e. the income from the number of tasks completed). These deductions are 40.0%.

Example: You solve 10 work tasks during one section. You will receive 3000 tokens for this. Of this number of tokens, 40.0% (1200 tokens) are deducted.

You will receive 1800 tokens for your payout + the tokens from the Leisure Option.

Figure A18: Screen 08

Ablauf eines Abschnittes

Am Ende jedes Abschnittes erhalten Sie eine Gehaltsverrechnung, welche Ihre erwirtschaftete Leistung, die Abzüge und Ihre Auszahlung ausweist.

Nach Beendigung aller Abschnitte der Studie, folgt ein kurzer Fragebogen. Sobald alle TeilnehmerInnen diesen ausgefüllt haben, erfolgt die Auszahlung. Die **Gesamtbearbeitungszeit** nimmt etwa **45 Minuten** in Anspruch.

Haben Sie Fragen?

Screen 08 - English

Sequence of a section

At the end of each section you will receive a salary statement showing your performance, deductions and payment.

After completion of all sections of the study, a short questionnaire follows. As soon as all participants have completed the questionnaire, the payment will be made. The total processing time takes about 45 minutes.

Figure A19: Screen 09



Screen 09 - English

Section 1

Figure A20: Screen 10

Anleitung

Ihre Aufgabe ist es innerhalb von 3 Minuten Arbeitsaufgaben zu erledigen. Die Arbeitsaufgaben bestehen darin, aus einer Sequenz von Buchstaben, die **korrekte Anzahl des Buchstaben "a"**, zu identifizieren.

Sie erhalten für jede korrekt gelöste Arbeitsaufgabe 300 Token.

Sie müssen auf Ihre erwirtschaftete Leistung 40,0% Abzüge leisten.

Wenn Sie sich für die Freizeitoption entscheiden, erhalten Sie für je 10 Sekunden, welche Sie in dieser Option verbringen, einen fixen Betrag von 200 Token. Auf Freizeit werden keine Abzüge fällig.

Fortfahren

Screen 10 - English

Your task is to complete work tasks within 3 minutes. The tasks consist of identifying the correct number of letters "a" from a sequence of letters.

You will receive 300 Tokens for each correctly solved task.

You must deduct 40.0% from your earned performance.

If you choose the Leisure Option, you will receive a fixed amount of 200 Tokens for every 10 seconds you spend in this option. There are no deductions on free time.

Figure A21: Screen 11

Bestätigung des Starts

Sind Sie bereit zu beginnen?

Wenn Sie auf **Start** klicken, beginnt dieser Abschnitt.

Start

Screen 11 - English

Are you ready to start?

When you click Start, this section begins.

Figure A22: Screen 12

Abschnitt 1

Verbleibende Zeit für diesen Abschnitt: **2:57**

3 Sek
0
baancwapau

0 Sek

Freizeit-Option

Anweisung

Ihre Arbeitsaufgabe besteht darin, aus einer Sequenz von Buchstaben, die korrekte Anzahl des Buchstabens "a" , zu identifizieren.

Dieser Abschnitt dauert 3 Minuten. Sie können jederzeit auch die Freizeit-Option wählen.

Screen 12 - English

Section 1

Remaining time in this section:

Instructions Your task is to identify the correct number of letters from a sequence of letters, the letter "a".

This section takes 3 minutes. You can also select the Leisure Option at any time.

Figure A23: Screen 13

Abschnitt 1

Verbleibende Zeit für diesen Abschnitt: **2:23**

Sie sind nun in der "Freizeit-Option"

Sie haben **1** Sequenzen gelöst.

Sie erhalten in der Freizeit-Option:

200 Tokens

Screen 13 - English

You are now in the "Leisure Option". You have solved 1 sequence.

You get in the Leisure Option: 200 Tokens

Figure A24: Screen 14

Lohn-/Gehaltsverrechnung		Computernummer 3	Datum 06.12.2019	Uhrzeit 14:45	Blatt 1
Vienna Center for Experimental Economics Laboratory		Firmennummer 1234	Abrechnungsperiode: 1		
Hr. Axel Sonntag Vienna Center for Experimental Economics Oskar-Morgenstern Platz 1 1090 Wien	SV-Gruppe 1	SV-Periode 1	Sozialversicherungsnummer .		Urlaubssaldo 0
	AVAB/AEAB Nein	Lst-Periode 1	Pendlerpauschale Nein	Freibetrag Nein	
	Ersteintrittsdatum 06.12.2019		Beruf Studierende/r		
	Eintrittsdatum		Austrittsdatum		Ende Entgeltanspruch
Labor 1	Reihe 1	Kostenstelle Studie	DN-Gruppe k.A.	Einstufung Studierende/r	
Abschnitt	Lohnart	Menge	Satz	Betrag (Tk)	
Periode 1	Lohn Periode 1			237,60	
				Summe Bezüge 237,60	
				Summe gesetzliche Abzüge (Dienstnehmer) 57,60	
				Auszahlung 180,00	
Bankverbindung Auszahlungsschalter 1					
Perioden- Summen	KommSt-Basis 237,60	FLAF-Basis 237,60			Gesamtkosten Dienstgeber 300,00
Perioden- Summen	Bruttobezüge gem. § 25 (ohne § 26) .	Steuerfreie Bezüge gem. § 68 2 Keine	Auslandstätigkeit § 3 Abs. 1 Z 10-11 3 Keine	Freiwillige Beiträge gem. § 16 4 Keine	Sonstige steuerfreie Bezüge § 5 Keine
	Insgesamt einbehaltene Lohnsteuer 6 .	Lohnsteuer mit festen Sätzen § 67 (3-8) 7 Keine	Sonstige Bezüge § 67 (2, 6, 10) Tarif 8 Keine	SV-Bemessung für Sonderzahlungen 9 Keine	Steuerfreie Bezüge gem. § 26 10 Keine
	11	12	13	14	15
	16	17	18	19	20
Erhaltene Tokens aus der Freizeit Option					3180

Screen 14 - English

This form contains specific technical terms used in Austrian remuneration statements which may not have a direct translation and will therefore not be translated.

Figure A25: Screen 15 - stage 3 instructions: change to 20% IWC

Anleitung

Ihre Aufgabe ist es innerhalb von 3 Minuten Arbeitsaufgaben zu erledigen. Die Arbeitsaufgaben bestehen darin, aus einer Sequenz von Buchstaben, die **korrekte Anzahl des Buchstaben "a"**, zu identifizieren.

Sie erhalten für jede korrekt gelöste Arbeitsaufgabe 300 Token.

Achtung: Es hat sich eine Änderung in der Ausgestaltung der Abzüge ergeben. Sie müssen auf Ihre erwirtschaftete Leistung neu **20,0%** Abzüge leisten (vorher 40,0%).

Wenn Sie sich für die Freizeitoption entscheiden, erhalten Sie weiterhin für je 10 Sekunden, welche Sie in dieser Option verbringen, einen fixen Betrag von 200 Token. Auf Freizeit werden keine Abzüge fällig.

Fortfahren

Screen 15 - change to 20% IWC - English

Attention: There has been a change in the design of the deductions. You must now make 20.0% deductions from your earned performance (previously 40.0%).

Figure A26: Screen 15 - stage 3 instructions: change to 60% IWC

Anleitung

Ihre Aufgabe ist es innerhalb von 3 Minuten Arbeitsaufgaben zu erledigen. Die Arbeitsaufgaben bestehen darin, aus einer Sequenz von Buchstaben, die **korrekte Anzahl des Buchstaben "a"**, zu identifizieren.

Sie erhalten für jede korrekt gelöste Arbeitsaufgabe 300 Token.

Achtung: Es hat sich eine Änderung in der Ausgestaltung der Abzüge ergeben. Sie müssen auf Ihre erwirtschaftete Leistung neu **60,0%** Abzüge leisten (vorher 40,0%).

Wenn Sie sich für die Freizeitoption entscheiden, erhalten Sie weiterhin für je 10 Sekunden, welche Sie in dieser Option verbringen, einen fixen Betrag von 200 Token. Auf Freizeit werden keine Abzüge fällig.

Fortfahren

Screen 15 - change to 60% IWC - English

Attention: There has been a change in the design of the deductions. You must now make 60.0% deductions from your earned performance (previously 40.0%).

Figure A27: Screen 16

Fragebogen

Bitte beantworten Sie die folgende Fragen:

Wie alt sind Sie (in Jahren)?:

Was ist Ihr biologisches Geschlecht?:

Bitte geben Sie die Postleitzahl Ihres Hauptwohnsitzes an:

Fortfahren

Screen 16 - English

Questionnaire

What is your age in years? What is your sex? What is the postcode of your residence?

Figure A28: Screen 17

Fragebogen

In der Politik spricht man von links und rechts. Wo würden Sie sich persönlich einordnen, wenn der Wert 0 „links“ und der Wert 10 „rechts“ bedeutet?

Fortfahren

Screen 17 - English

In politics, one speaks of left and right. Where would you personally classify yourself if the value 0 meant “left” and the value 10 “right”?

Figure A29: Screen 18

Fragebogen

Bitte beantworten Sie die folgende Fragen:

Haben Sie bisher schon in einem Angestelltenverhältnis (z.B. innerhalb von Praktika, Nebenjobs oder Vollzeitstellen) gearbeitet?

Geben Sie bitte die Anzahl der Monate dieser Angestelltenverhältnisse insgesamt in etwa an:

[Fortfahren](#)

Screen 18 - English

Have you already worked as an employee (e.g. during internships, part-time jobs or full-time positions)? yes/no

Please indicate the total number of months of these employment contracts:

Figure A30: Screen 19

Fragebogen

Wie informativ fanden Sie die erhaltenen Gehaltsverrechnungen in den einzelnen Abschnitten?

[Fortfahren](#)

Screen 19 - English

How informative did you find the payslips received in the individual sections?

Figure A31: Screen 20

Fragebogen

Sind Sie der Meinung, dass die Abzüge auf Ihre erwirtschaftete Leistung zu hoch sind?

Überhaupt nicht ● ● ● ● ● ● ● ● ● ● viel zu hoch

Fortfahren

Screen 20 - English

Do you think that the deductions on your earned performance are too high?

Figure A32: Screen 21

Fragebogen

An welchen Beiträgen könnte Ihrer Meinung nach eingespart werden?

- Insolvenzentsicherung
- Wohnbauförderung
- Unfallversicherung
- Betriebliche
Vorsorge
- Kommunalsteuer
- Arbeitslosenversicherung
- Krankenversicherung
- Familienlastenausgleichs-
fonds
- Pensionsversicherung
- Arbeiterkammerumlage
- Lohnsteuer

Fortfahren

Screen 21 - English

In your opinion, which contributions could be saved?

Securing insolvency fees, housing subsidy, accident insurance, occupational pension provision, municipal tax, unemployment insurance, health insurance, family equalization fund, pension insurance, chamber of labor allocation, payroll tax

Figure A33: Screen 22

Fragebogen

Gibt es kleinere Abgaben, welche Sie reduzieren oder gänzlich streichen würden?

- Insolvenzentsicherung
- Wohnbauförderung
- Betriebliche Unfallversicherung
- Betriebliche Vorsorge
- Arbeiterkammerumlage
- Kommunalsteuern

[Fortfahren](#)

Screen 22 - English

Are there any smaller levies that you would reduce or eliminate altogether?

Insolvency fee protection, housing subsidy, company accident insurance, occupational pension provision, chamber of labor allocation, municipal taxes

Figure A34: Screen 23

Fragebogen

Muss in Österreich eine Arbeitgeberin zusätzlich zum Bruttogehalt eines unselbstständigen Angestellten Abgaben leisten?

In welchem prozentualen Ausmaß bewegt sich in etwa die Abgabenlast der Arbeitgeberin gemessen am Nettogehalt?

- 5%
- 10%
- 15%
- 20%
- 25%
- 30%
- über 30%

In welchem prozentualen Ausmaß bewegt sich in etwa die Abgabenlast der Arbeitgeberin gemessen an den Gesamtabgaben?

- 10%
- 20%
- 30%
- 40%
- 50%
- 60%
- 70%
- 80%
- 90%

Fortfahren

Screen 23 - English

Does an employer in Austria have to pay dues in addition to the gross salary of an employee?

Figure A35: Screen 24

Fragebogen

Haben die erhaltenen Gehaltsverrechnungen in den einzelnen Abschnitten Ihr Verhalten beeinflusst?

in welcher Weise?

bitte beschreiben Sie kurz in welcher Weise sich Ihr Verhalten geändert hat

[Fortfahren](#)

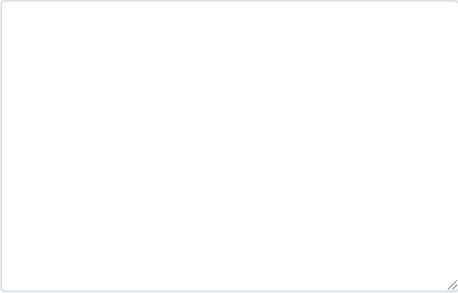
Screen 24 - English

Have the payslips received in the sections before influenced your behavior?

Figure A36: Screen 25

Fragebogen

Sie haben abschließend die Möglichkeit, uns Kommentare oder Feedback zu hinterlassen.



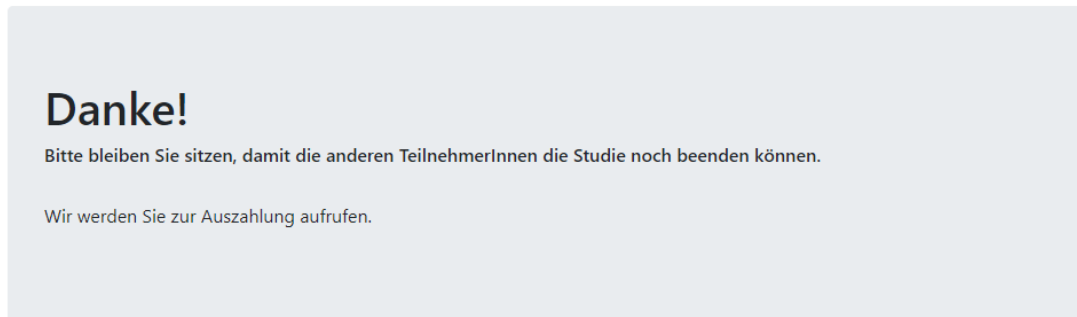
Fortfahren

Screen 25 - English

Finally, you have the opportunity to leave comments or feedback.

Figure A37: Screen 26

Ende



Screen 26 - English

Thank you. Please remain seated so that the other participants can finish the study.

We will call you for payment.

D Framed cover sheets to the standard payslip, varied by treatment

As indicated in Figure 1, in the treatments MIN, MIN gross, MIN-G gross, MIN-C gross and MAX-G gross, a cover sheet was provided in addition to the traditional payslip. Figures A38 - A42 display the respective screenshots of the cover sheets used in the experiment.

Figure A38: Treatment: MIN

Ihre Lohn-/Gehaltsverrechnung	
Hr. Axel Sonntag	
Abrechnungsperiode: 1	
Ihre erwirtschaftete Leistung:	900,00
Abzüge:	-360,00
Ihre Auszahlung (Netto):	540,00

Figure A39: Treatment: MIN gross

Ihre Lohn-/Gehaltsverrechnung	
Hr. Axel Sonntag	
Abrechnungsperiode: 1	
Ihre erwirtschaftete Leistung:	900,00
Abzüge: <small>Dienstgebenseite</small>	-187,20
Ihr Lohn-/Gehalt (Brutto):	712,80
Abzüge: <small>Dienstnehmersseite</small>	-172,80
Ihre Auszahlung (Netto):	540,00

Figure A40: Treatment: MIN-G gross



Figure A41: Treatment: MIN-C gross



Figure A42: Treatment: MAX-G gross

