

Supplementary Material

Figure S1. Food items used in the study, as depicted in the questionnaire. Top row, from left to right: quiche, sandwich, vegetable sticks and creamy yogurt-herb sauce. Bottom row, from left to right: chocolate mousse, fruit skewers, muffin.



Figure S2. Food items placed under the plastic sneeze guard, as seen by participations during the estimation task.



König, L. M., Ziesemer, K., & Renner, B. (2019). Quantifying actual and perceived inaccuracy when estimating the sugar, energy content and portion size of foods. *Nutrients*.

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Table S1. Correlations (*N*) between deviations in percent within estimation measures and with BMI.

		2	3	4	5	6	7	8
<i>Estimated sugar content</i>								
1	Quiche	.72*** (195)	.39*** (194)	.11 (163)	.42*** (180)	.27*** (190)	.58*** (189)	-.13 (189)
2	Sandwich		.57*** (195)	.39*** (178)	.44*** (182)	.38*** (191)	.52*** (191)	-.05 (191)
3	Vegetable sticks			.53*** (177)	.45*** (180)	.50*** (190)	.33*** (189)	.08 (189)
4	Creamy yogurt-herb sauce				.36*** (165)	.30*** (173)	.15* (173)	.06 (173)
5	Chocolate mousse					.42*** (180)	.60*** (182)	.02 (176)
6	Fruit skewers						.43*** (189)	.02 (185)
7	Muffin							-.06 (185)
8	BMI							
<i>Estimated amount</i>								
1	Quiche	.58*** (193)	.24** (191)	.16* (188)	.35*** (194)	.30*** (193)	.49*** (194)	.11 (188)
2	Sandwich		.26*** (191)	.07 (188)	.47*** (194)	.38*** (193)	.56*** (194)	.07 (188)
3	Vegetable sticks			.28*** (186)	.02 (193)	.38*** (191)	.35*** (193)	.05 (187)
4	Creamy yogurt-herb sauce				.14* (189)	.24** (187)	.17* (189)	.12 (183)
5	Chocolate mousse					.49*** (194)	.51*** (196)	.15* (190)
6	Fruit skewers						.46*** (194)	.15* (188)
7	Muffin							.02 (190)
8	BMI							
<i>Estimated weight</i>								
1	Quiche	.64*** (195)	.45*** (195)	.40*** (195)	.52*** (195)	.40*** (195)	.55*** (195)	-.12 (189)
2	Sandwich		.49*** (197)	.34*** (197)	.56*** (197)	.45*** (197)	.62*** (197)	-.10 (191)
3	Vegetable sticks			.50*** (197)	.46*** (197)	.55*** (197)	.45*** (197)	-.01 (191)

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4	Creamy yogurt-herb sauce				.46*** (197)	.37*** (197)	.38*** (197)	.09 (191)
5	Chocolate mousse					.39*** (197)	.59*** (197)	-.09 (191)
6	Fruit skewers						.53*** (197)	-.10 (191)
7	Muffin							-.08 (191)
8	BMI							
<i>Estimated energy content</i>								
1	Quiche	.54*** (196)	.19** (197)	.28*** (195)	.36*** (197)	.28*** (197)	.35*** (197)	-.02 (191)
2	Sandwich		.40*** (196)	.43*** (194)	.53*** (196)	.46*** (196)	.51*** (196)	-.09 (190)
3	Vegetable sticks			.40*** (195)	.35*** (197)	.48*** (197)	.35*** (197)	-.02 (191)
4	Creamy yogurt-herb sauce				.54*** (195)	.34*** (195)	.53*** (195)	.00 (189)
5	Chocolate mousse					.50*** (197)	.74*** (197)	-.06 (191)
6	Fruit skewers						.53*** (197)	.01 (191)
7	Muffin							-.08 (191)
8	BMI							

Note. * $p < .05$; ** $p < .01$; *** $p < .001$

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Table S2. Correlations (*N*) between deviations in percent.

		2	3	4
<i>Quiche</i>				
1	Sugar content	-.04 (192)	.27*** (193)	.16* (195)
2	Amount		.03 (192)	.10 (194)
3	Weight			.27*** (195)
4	Energy content			
<i>Sandwich</i>				
1	Sugar content	.16* (194)	.47*** (197)	.26*** (196)
2	Amount		.08 (194)	.08 (193)
3	Weight			.34*** (196)
4	Energy content			
<i>Vegetable sticks</i>				
1	Sugar content	.17* (191)	.30*** (195)	.35*** (195)
2	Amount		.18* (193)	.11 (193)
3	Weight			.40*** (197)
4	Energy content			
<i>Creamy yogurt-herb sauce</i>				
1	Sugar content	.08 (170)	.44*** (178)	.20** (176)
2	Amount		.09 (189)	.07 (187)
3	Weight			.29*** (195)
4	Energy content			
<i>Chocolate mousse</i>				
1	Sugar content	.01 (181)	.69*** (182)	.13 (182)
2	Amount		-.04 (196)	-.03 (196)
3	Weight			.27*** (197)
4	Energy content			
<i>Fruit skewers</i>				
1	Sugar content	.05 (188)	.51*** (191)	.27*** (191)
2	Amount		.01 (194)	.04 (194)
3	Weight			.37*** (197)
4	Energy content			
<i>Muffin</i>				
1	Sugar content	.05 (190)	.57*** (191)	.16* (191)
2	Amount		.01 (196)	.00 (196)
3	Weight			.31*** (197)
4	Energy content			

Note. * $p < .05$; ** $p < .01$; *** $p < .001$

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Table S3. Correlations (*N*) between expected/ perceived accuracy and absolute deviation.

	Expected accuracy	Perceived accuracy
<i>Estimated sugar content</i>		
Quiche	.01 (195)	.06 (195)
Sandwich	-.06 (197)	.01 (197)
Vegetable sticks	-.04 (195)	-.05 (195)
Creamy yogurt-herb sauce	-.05 (178)	-.03 (178)
Chocolate mousse	-.01 (182)	-.04 (182)
Fruit skewers	.09 (191)	.07 (191)
Muffin	.11 (191)	.09 (191)
<i>Estimated amount</i>		
Quiche	-.04 (194)	.08 (194)
Sandwich	-.05 (194)	-.01 (194)
Vegetable sticks	-.06 (193)	.07 (193)
Creamy yogurt-herb sauce	.07 (189)	.01 (189)
Chocolate mousse	.10 (196)	.07 (196)
Fruit skewers	.07 (194)	.04 (194)
Muffin	.02 (196)	-.00 (196)
<i>Estimated weight</i>		
Quiche	.02 (195)	.12 (195)
Sandwich	.11 (197)	.11 (197)
Vegetable sticks	.08 (197)	.07 (197)
Creamy yogurt-herb sauce	.05 (197)	-.05 (197)
Chocolate mousse	.00 (197)	.01 (197)
Fruit skewers	.05 (197)	.10 (197)
Muffin	.12 (197)	.16* (197)
<i>Estimated energy content</i>		
Quiche	.20** (197)	.18* (197)
Sandwich	.17* (196)	.13 (196)
Vegetable sticks	.04 (197)	-.01 (197)
Creamy yogurt-herb sauce	.10 (195)	.11 (195)
Chocolate mousse	.09 (197)	.11 (197)
Fruit skewers	-.05 (197)	.01 (197)
Muffin	.13 (197)	.18* (197)

Note. * $p < .05$, ** $p < .01$

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Table S4. Comparison of deviation in percent for estimation measures between participants who were experienced and unexperienced with food journaling.

Food item	Experienced		Unexperienced		<i>t</i>	<i>df</i>	<i>p</i>	Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
<i>Quiche</i>								
Estimated sugar content	1095.01	1206.48	854.99	805.17	1.63	193	.105	0.23
Estimated amount	4.66	40.91	-2.28	35.73	1.18	192	.238	0.18
Estimated weight	34.98	70.15	21.20	63.09	1.35	193	.177	0.21
Estimated energy content	-26.63	46.71	-27.94	57.26	0.15	195	.878	0.03
<i>Sandwich</i>								
Estimated sugar content	1491.53	2322.48	863.69	932.18	2.01	66.13 ¹	.049	0.35
Estimated amount	19.91	56.08	10.03	43.57	1.32	192	.188	0.19
Estimated weight	86.17	105.15	65.58	84.99	1.45	195	.149	0.22
Estimated energy content	-14.31	54.97	-22.55	38.88	1.05	84.02 ¹	.299	0.17
<i>Vegetable sticks</i>								
Estimated sugar content	185.47	475.78	134.95	343.27	0.84	193	.405	0.12
Estimated amount	40.02	61.84	32.37	48.47	0.92	191	.358	0.14
Estimated weight	10.84	60.10	9.49	80.35	0.12	195	.908	0.02
Estimated energy content	160.23	238.88	148.67	206.96	0.34	195	.732	0.05
<i>Creamy yogurt-herb sauce</i>								
Estimated sugar content	626.58	1224.09	433.83	500.99	1.12	60.86 ¹	.268	0.21
Estimated amount	106.70	124.00	115.64	121.91	-0.46	187	.647	0.07
Estimated weight	6.81	89.12	5.47	77.70	0.11	195	.916	0.02
Estimated energy content	1.94	103.93	4.81	113.43	-0.17	193	.868	0.06
<i>Chocolate mousse</i>								
Estimated sugar content	333.23	282.65	298.99	287.56	.74	180	.462	0.16

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Estimated amount	-34.34	79.36	-5.84	135.17	-1.51	194	-133	0.26
Estimated weight	45.99	77.19	55.11	121.72	-0.53	195	.596	0.09
Estimated energy content	56.21	108.83	78.52	123.55	-1.20	195	.231	0.19
<i>Fruit skewers</i>								
Estimated sugar content	495.86	539.93	400.71	447.84	1.27	189	.207	0.19
Estimated amount	49.91	54.70	55.45	73.91	-0.51	192	.610	0.09
Estimated weight	56.07	102.48	33.58	81.11	1.64	195	.102	0.24
Estimated energy content	237.87	261.95	226.48	250.60	0.29	195	.773	0.04
<i>Muffin</i>								
Estimated sugar content	163.34	193.31	115.07	155.03	1.83	189	.070	0.28
Estimated amount	18.56	87.29	4.94	47.33	1.13	73.11 ¹	.263	0.19
Estimated weight	94.42	94.96	68.47	97.93	1.72	195	.087	0.27
Estimated energy content	-0.76	50.65	-2.63	64.20	0.20	195	.843	0.03

Note. ¹ Corrected for heterogeneity of variances, as indicated by the Levene test.

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Table S5. Comparison of deviation in percent for estimation measures between female and male participants.

Food item	Female		Male		<i>t</i>	<i>df</i>	<i>p</i>	Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
<i>Quiche</i>								
Estimated sugar content	991.71	1071.72	825.51	715.91	1.30	191.95 ¹	.197	0.18
Estimated amount	1.31	35.85	-2.60	40.04	0.71	191	.481	0.10
Estimated weight	36.90	67.10	7.76	59.48	3.17	175.80 ¹	.002	0.46
Estimated energy content	-23.74	58.36	-34.86	45.29	1.42	194	.158	0.21
<i>Sandwich</i>								
Estimated sugar content	1204.32	1818.35	817.25	819.31	2.03	176.66 ¹	.044	0.27
Estimated amount	12.30	37.96	14.24	60.47	-0.25	111.29 ¹	.804	0.04
Estimated weight	84.49	99.72	49.74	71.37	2.84	191.98 ¹	.005	0.40
Estimated energy content	-18.80	39.72	-23.16	50.07	0.68	193	.501	0.10
<i>Vegetable sticks</i>								
Estimated sugar content	127.68	376.35	184.72	406.91	-1.00	192	.320	0.15
Estimated amount	38.66	49.80	28.63	57.34	1.28	190	.203	0.19
Estimated weight	7.88	79.02	13.27	68.40	-0.49	194	.624	0.07
Estimated energy content	153.16	213.32	148.99	223.56	0.13	194	.896	0.02
<i>Creamy yogurt-herb sauce</i>								
Estimated sugar content	414.20	701.53	607.23	907.71	-1.59	175	.113	0.24
Estimated amount	110.40	116.67	115.81	131.57	-0.30	186	.768	0.04
Estimated weight	1.35	86.29	12.94	72.82	0.98	194	.331	0.15
Estimated energy content	-7.69	106.80	22.00	114.86	-1.83	192	.069	0.27
<i>Chocolate mousse</i>								
Estimated sugar content	312.02	273.98	305.23	305.68	0.16	179	.876	0.02
Estimated amount	-38.10	58.27	22.46	175.60	-2.91	85.65 ¹	.005	0.46
Estimated weight	57.67	116.03	44.46	101.41	0.82	194	.415	0.12

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Estimated energy content	69.91	111.03	75.24	132.87	-0.30	194	.762	0.04
<i>Fruit skewers</i>								
Estimated sugar content	414.47	464.05	459.28	499.98	-0.63	188	.528	0.09
Estimated amount	54.83	57.72	52.96	83.73	0.17	118.60 ¹	.865	0.03
Estimated weight	40.59	92.27	40.63	83.00	-0.00	194	.998	0.00
Estimated energy content	215.75	231.31	253.44	285.44	-1.02	194	.311	0.15
<i>Muffin</i>								
Estimated sugar content	125.07	183.21	136.91	145.60	-0.47	188	.636	0.07
Estimated amount	6.05	35.05	13.84	89.92	-0.72	89.72 ¹	.473	0.11
Estimated weight	79.91	104.55	71.37	86.43	0.60	194	.552	0.09
Estimated energy content	-6.28	47.32	4.67	76.39	-1.24	194	.217	0.17

Note. ¹ Corrected for heterogeneity of variances, as indicated by the Levene test.