

Data documentation for the articles:

Göpferich, Susanne: „Anleitungen rezipieren, Anleitungen produzieren: Empirische Befunde zu kognitiven Prozessen bei Übersetzungsnovizen und Übersetzungsprofis”

Göpferich, Susanne: “The translation of instructive texts from a cognitive perspective: Translation novices and professionals compared.”

6 August, 2009

Table 1: Data for professional translators, Text A (Text A3)

Text A3 – 239 words	KEG	LEB	RAN	AIR	AEF	Ø
Translation time and translation speed	59 min. 4.1 words/ min.	38 min. 6.3 words/ min.	38 min. 6.3 words/ min.	35 min. 6.8 words/ min.	57 min. 4.2 words/ min. ¹	45.4 min. 5.3 words/ min.
Translation phases						
Orientation phase (pre-phase)	4 min. 6.8 %	2 min. 5.3 %	1.5 min. 3.9 %	0.5 min. 1.4 %	0 min. 0 %	1.6 min. 3.5 %
Translation phase (main phase)	49 min. 83.1 %	30 min. 78.9 %	29 min. 76.3 %	32.5 min. 92.9 %	36 min. 63.2 %	35.3 min. 77.8 %
Revision phase 1 (post-phase 1)	4 min. 6.8 %	6 min. 15.8 %	7 min. 18.4 %	2 min. 5.7 %	9 min. 15.6 %	5.6 min. 12.3 %
Revision phase 2 (post-phase 2)	2 min. 3.4 %	---	0.5 min. 1.3 %	---	12 min. 21.1 %	2.9 min. 6.4 %
Revision phases total	6 min. 10.2 %	6 min. 15.8 %	7.5 min. 19.7 %	2 min. 5.7 %	21 min. 36.8 %	8.5 min. 18.7 %
Errors						
Formal errors	2.5 (0)	1 (0)	1 (0)	1 (0)	1 (0)	1.3 (0)
Punctuation	1 (0)	0.5 (0)	1 (0)	1 (0)	0.5 (0)	
Spelling	1.5 (0)	0.5 (0)			0.5 (0)	
Formatting						
Lexical errors	10.5 (4,5)	12.5 (4,5)	7.5 (2)	8 (2,5)	6,5 (3,5)	9 (3,4) 72.6 %
Lexical error rate (lexical errors per 100 ST words)						3.8
Semantic errors	9 (3,5)	11.5 (4,5)	7 (2)	8 (2,5)	6.5 (3,5)	
Collocation	1.5 (1)	1 (0)	0.5 (0)			
Blending						
Preposition						

¹ In the post-phase, a crash occurred (for details, see the transcript). The duration of the interruption was subtracted from the total translation time.

Text A3 – 239 words	KEG	LEB	RAN	AIR	AEF	Ø
Grammatical errors	1 (0)	0.5 (0)	2.5 (1.5)	0.5 (0)	1.5 (1)	1.2 (0.5)
Tense						
Case, number, agreement		0.5 (0)		0.5 (0)		
Mode						
Syntax	1 (0)		0.5 (0,5)		1.5 (1)	
Article						
Modality/illocution			2 (1)			
Infinitive						
Text-level errors	0 (0)	0 (0)	0 (0)	1 (0)	0 (0)	0,2 (0)
Text coherence						
Functional sentence perspective				1 (0)		
Rhetoric						
Other	0.5 (0)	1.5 (0)	0.5 (0)	0.5 (0)	0.5 (0)	0.7 (0)
Idiomacity/genre conventions	0.5 (0)	1.5 (0)	0.5 (0)	0.5 (0)	0.5 (0)	
Cultural specificity						
Total errors	14.5 (4.5)	15.5 (4.5)	11.5 (3.5)	11 (2.5)	9.5 (4.5)	12.4 (3.9)
Error rate (total errors per 100 ST words)						5.1 (1.6) reflected 31.5 %
L1 errors	2.5 (0)	1.5 (0)	0 (0)	0.5 (0)	0.5 (0)	1 (0) 8.1 %
L1 error rate (L1 errors per 100 ST words)						0.4
Translation errors	12 (4.5)	14 (4.5)	11.5 (3.5)	10.5 (2.5)	9 (4.5)	11.4 (3.9)
Translation error rate (translation errors per 100 ST words)						4.8
Logical errors (also included in translation errors)	1.5 (1.5)	0 (0)	0 (0)	1.5 (1.5)	1.5 (0)	0.9 (0.6)
Problem incidents and types						
Problem incidents (1st occurrence, 1st return, 2nd return, etc.)	9 + 3 + 1	7 + 0 + 0	13 + 0 + 0	15 + 0 + 0	24 + 2 + 0	13.6 + 1 + 0.2
Problem incident rate (1st occurrences, 1st returns, 2nd return, etc. per 100 ST words)	3.8 + 1.3 + 0.4	2.9	5.4	6.3	10.0 + 0.8	5.7 + 0.4 + 0.1
Comprehension problems solved / unsolved	0 / 0	0 / 0	0 / 0	2 / 1	1 / 0	0.6 / 0.2 solved 75 %
Comprehension problem rate (comprehension problems per 100 ST words)						0.3
Production problems solved / unsolved	3 / 1	3 / 1	9 / 2	7 / 1	10 / 4	6.4 / 1.8 solved 78 %
Production problem rate (production problems per 100 ST words)						3.4
Combined comprehension and production problems (or not specifiable) solved / unsolved	3 / 2	1 / 2	0 / 1	3 / 1	4 / 5	2.2 / 2.2 solved 50 %

Text A3 – 239 words	KEG	LEB	RAN	AIR	AEF	Ø
Combined comprehension and production problem rate (combined comprehension and production problems per 100 ST words)						1.8
Other			1 (P1)			0.2
Total problems solved / unsolved / other	6 / 3 solved 66.6 %	4 / 3 solved 57.1 %	10 / 2 / 1 solved 77 %	12 / 3 solved 80 %	15 / 9 solved 62.5 %	9.4 / 4 / 0.2 solved 69.1 %
Problem rate (total problems per 100 ST words)						5.7
Estimated text difficulty (from 1 = very easy to 5 = very difficult)	no indication	3	3	2	1	2.3
Reflections						
Necessary reflections	4 out of 6	0 out of 6	2 out of 6	5 out of 6	1 out of 6	2.4 out of 6
Consideration of item 1	yes	no	no	yes	no	
Consideration of item 2	yes	no	no	no ²	no	
Consideration of item 3	yes	no	no	yes	no	
Consideration of item 4	no	no	yes	no	no	
Consideration of item 5	no	no	no	yes	no	
Consideration of item 6	yes	(yes) (correct solution without reflection)	yes	yes	yes	
Desirable reflections	0 out of 3	0 out of 3	1 out of 3	1 out of 3	0 out of 3	0.4 von 3
Consideration of item 7	no	no	no	no	no	
Consideration of item 8	no	no	yes	no	no	
Consideration of item 9	---	---	---	---	---	
Consideration of item 10	no	no	no	yes	yes	

² Although subject talks about the difference between descriptions and recommendations, her analyses concerning this difference are wrong.

Table 2: Data for novices, Text A (Text A3)

Text A3 – 239 words	BKR	KNI	SFR	HHE	TDI	KBE	Ø
Translation time and translation speed	127 min. 1.9 words/ min.	81 min. 3 words/ min.	87 min. 2.7 words/ min. ³	59 min. 4.1 words/ min.	48 min. 5 words/ min.	32 min. 7.5 words/ min.	72.3 min. 3.3 words/ min.
Orientation phase (pre-phase)	10 min. 7.9 %	8 min. 9.9 %	3 min. 3.4 %	1 min. 1.7 %	1 min. 2.1 %	1 min. 3.1 %	4 min. 5.5 %
Translation phase (main phase)	54 min. 42.5 %	62 min. 76.5 %	84 min. 96.6 %	54 min. 91.5 %	35 min. 72.9 %	25 min. 78.1 %	52.3 min. 72.3 %
Revision phase 1 (post-phase 1)	63 min. 49.6 %	11 min. 13.6 %	---	4 min. 6.8 %	12 min. 25 %	5.5 min. 17.2 %	19.1 min. 26.4 %
Revision phase 2 (post-phase 2)	0 min. 0 %	0 min. 0 %	---	0 min. 0 %	0 min. 0 %	0.5 min. 1.6 %	0.1 min. 0.1 %
Revision phases total	63 min. 49.6 %	11 min. 13.6 %	---	4 min. 6.8 %	12 min. 25 %	6 min. 18.8 %	19.2 min. 26.6 %
Errors							
Formal errors	1.5	3.5	1.5	1.5	2.5	2	2.1 (0)
Punctuation	1	3	1	1	2	1	
Spelling	0.5	0.5	0.5	0.5	0.5	1	
Formatting							
Lexical errors	7 (4.5)	16.5 (10)	9.5 (3)	15.5 (8.5)	13.5 (4.5)	25 (9.5)	14.5 (6.7) 76.7 %
Lexical error rate (lexical errors per 100 ST words)							6.1
Semantic errors	5.5 (4)	15.5 (9)	8 (2)	14.5 (8.5)	13 (4.5)	22.5 (8.5)	
Collocation	1.5 (0.5)	1 (1)	1.5 (1)	1	0.5	2.5 (1)	
Blending							
Preposition							
Grammatical errors	0	1	2 (1)	1	0.5	1	0.9 (0.2)
Tense		0.5					
Case, number, agreement			0.5		0.5	1	
Mode							
Syntax			1 (1)	1			
Article		0.5	0.5				
Modality/illocution							
Infinitive							
Text-level errors	0	0	0.5	0	0	0	0.1 (0)
Text coherence			0.5				
Functional sentence perspective							
Rhetoric							
Other	1.5	1.5 (0.5)	1 (1)	1 (0.5)	0.5	2.5	1.3 (0.7)
Idiomacity/genre conventions	1.5	1.5 (0.5)	1 (1)	1 (0.5)	0.5	2.5	
Cultural specificity							
Total errors	10 (4.5)	22.5 (10.5)	14.5 (5)	19 (9)	17 (4.5)	30.5 (9.5)	18.9 (7.2)

³ Due to a crash towards the end of the main phase (for the details, see transcript), no revision was possible. For the calculation of the average revision phase duration, SFR's data were not taken into account.

Text A3 – 239 words	BKR	KNI	SFR	HHE	TDI	KBE	Ø
Estimated text difficulty (from 1 = very easy to 5 = very difficult)	3 ("Not difficult to understand but difficult to translate.")	3	4	4	5 ("because specialized knowledge is required")	4	3.8
Reflections							
Necessary reflections	2 / (3) out of 6	2 out of 6	(1) out of 6	(1) out of 6	0 out of 6	0 out of 6	0.7 / (1.2) out of 6
Consideration of item 1	no	yes	no	no	no	no	
Consideration of item 2	(yes)	no	(yes)	no	no	no	
Consideration of item 3	no	no	no	no	no	no	
Consideration of item 4	yes	no	no	no	no	no	
Consideration of item 5	no	no	no	no	no	no	
Consideration of item 6	yes	yes	(yes) (correct solution without reflection)	(yes)	(yes)	(yes)	
Desirable reflections	0 out of 3	1 out of 3	0 out of 3	0 out of 3	0 out of 3	0 out of 3	0.2 out of 3
Consideration of item 7	no	no	no	no	no	no	
Consideration of item 8	no	no	no	no	no	no	
Consideration of item 9	---	---	---	---	---	---	
Consideration of item 10	no	yes	no	no	no	no	

Table 3: Data for professional translators, Text B (Text B3)

Text B3 – 277 words	CAS	FLS	GEM	GOB	RCH	Ø
Translation time and translation speed	33.5 min. 8.3 words/ min.	29.5 min. 9.4 words/ min.	43.5 min. 6.4 words/ min.	28 min. 9.9 words/ min.	55.5 min. 5 words/ min.	38 min. 7.3 words/ min.
Translation phases						
Orientation phase (pre-phase)	8 min. 23.9 %	1 min. 3.4 %	1.5 min. 3.4 %	0.5 min. 1.8 %	4.5 min. 8.1 %	3.1 min. 8.2 %
Translation phase (main phase)	22 min. 65.7 %	12.5 min. 42.4 %	26 min. 59.8 %	21 min. 75.0 %	42 min. 75.7 %	24.7 min. 65.0 %
Revision phase 1 (Post-phase 1)	3.5 min. 10.4 %	4 min. 13.6 %	2.5 min. 5.7 %	6.5 min. 23.2 %	9 min. 16.2 %	5.1 min. 13.4 %
Revision phase 2 (post-phase 2)		11 min. 37.3 %	7 min. 16.1 %			3.6 min. 9.5 %
Revision phase 3 (post-phase 3)		1 min. 3.4 %	3.5 min. 8.0 %			0.9 min. 2.4 %
Revision phase 4 (post-phase 4)			3 min. 6.9 %			0.6 min. 1.6 %
Revision phases total	3.5 min. 10.4 %	16 min. 54.2 %	16 min. 36.8 %	6.5 min. 23.2 %	9 min. 16.2 %	10.2 min. 26.8 %
Errors						
Formal errors	0.5 (0)	0 (0)	0 (0)	1.5 (0.5)	1 (0)	0.6 (0.1)
Punctuation	0.5 (0)				0.5 (0)	
Spelling				1.5 (0.5)	0.5 (0)	
Formatting						
Lexical errors	11.5 (4.5)	5 (1.5)	9.5 (5)	10 (4.5)	9.5 (4)	9.1 (3.9) 82.0 %
Lexical error rate (lexical errors per 100 ST words)						3.3
Semantic errors	11.5 (4.5)	5 (1.5)	9.5 (5)	9 (4.5)	9.5 (4)	
Collocation				1 (0)		
Blending						
Preposition						
Grammatical errors	1.5 (0)	0 (0)	0.5 (0)	2 (0)	1 (1)	1 (0.2)
Tense						
Case, number, agreement			0.5 (0)			
Mode						
Syntax						
Article						
Modality/illocution	1.5 (0)			2 (0)	1 (1)	
Infinitive						
Text-level errors	0.5 (0)	0.5 (0)	0.5 (0)	0 (0)	0.5 (0)	0.4 (0)
Text coherence		0.5 (0)	0.5 (0)		0.5 (0)	
Functional sentence perspective	0.5 (0)					
Rhetoric						
Other	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Idiomacity/genre conventions	0 (0)			0 (0)		
Cultural specificity						
Total errors	14 (4.5)	5.5 (1.5)	10.5 (5)	13.5 (5)	12 (5)	11.1 (4.2)

Text B3 – 277 words	CAS	FLS	GEM	GOB	RCH	Ø
Error rate (total errors per 100 ST words)						4.0 (1.5) reflected 37.8 %
L1 errors	1 (0)	0 (0)	0.5 (0)	2.5 (0.5)	1(0)	1 (0.1) 9.0 %
L1 error rate (L1 errors per 100 ST words)						0.4
Translation errors	13 (4.5)	5.5 (1.5)	10 (5)	11 (4.5)	11 (5)	10.1 (4.1)
Translation error rate (translation errors per 100 ST words)						3.6
Logical errors (also included in translation errors)	1 (0)	1 (0)	2 (1)	1 (0)	2 (2)	1.4 (0.6)
Problem incidents and types						
Problem incidents (1st occurrence, 1st return, 2nd return, etc.)	29+1	8+4+2+1	22+6+1+1+1	15+4+1	18+4	18.4 + 3.8 + 0.8 + 0.2 + 0.2
Problem incident rate (1st occurrences, 1st returns, 2nd returns, etc. per 100 ST words)	10.5 + 0.4	2.9 + 1.4 + 0.7 + 0.4	7.9 + 2.2 + 0.4 + 0.4 + 0.4	5.4 + 1.4 + 0.4	6.5 + 1.4	6.6 + 1.4 + 0.3 + 0.1 + 0.1
Comprehension problems solved / unsolved	0 / 0	0 / 0	2 / 2	2 / 0	3 / 1	1.4 / 0.6 solved 70.0 %
Comprehension problem rate (comprehension problems per 100 ST words)						0.7
Production problems solved / unsolved	17 / 5	2 / 0	10 / 2	7 / 3	6 / 3	8.4 / 2.6 solved 76.4 %
Production problem rate (production problems per 100 ST words)						4.0
Combined comprehension and production problems (or not specifiable) solved / unsolved	2 / 5	5 / 1	2 / 4	0 / 3	3 / 2	2.4 / 3 solved 44.4 %
Combined comprehension and production problem rate (combined comprehension and production problems per 100 ST words)						1.9
Total problems solved / unsolved	19 / 10 solved 65.5 %	7 / 1 solved 87,5 %	14 / 8 solved 63,6 %	9 / 6 solved 60,0 %	12 / 6 solved 66,7 %	12,2 / 6,2 solved 66,3 %
Problem rate (total problems per 100 ST words)						6,6
Estimated text difficulty (from 1 = very easy to 5 = very difficult)	1	1	2	2	1	1.4

Table 4: Data for novices, Text B (Text B3)

Text B3 – 277 words	EVE	JZE	JTH	MLE	STO	THI	Ø
translation time and translation speed	50 min. 5.5 words/ min.	39 min. 7.1 words/ min.	44 min. 6.3 words/ min	57 min. 4.9 words/ min.	30.5 min. 9.1 words/ min.	84 min. 3.3 words/ min.	50.8 min. 5.5 words/ min.
Translation phases							
Orientation phase (pre-phase)	2 Min 4.0 %	1 min. 2.6 %	1 min. 2.3 %	1 min. 1.8 %	0.5 min. 1.6 %	7 min. 8.3 %	2.1 min. 4.1 %
Translation phase (main phase)	48 Min 96.0 %	30 min. 77.0 %	38 min. 86.4 %	51 min. 89.5 %	23 min. 75.4 %	54 min. 64.3 %	40.7 min. 80.1 %
Revision phase 1 (post-phase 1)	0 min. 0 %	8 min. 20.5 %	5 min. 11.4 %	5 min. 8.8 %	5 min. 16.4 %	19 min. 22.6 %	7.0 min. 13.8 %
Revision phase 2 (post-phase 2)	0 Min 0 %	0 Min 0 %	0 Min 0 %	0 Min 0 %	1.5 min. 4.9 %	4 min. 4.8 %	0.9 min. 1.8 %
Revision phase 3 (post-phase 3)	0 min. 0 %	0 Min 0 %	0 Min 0 %	0 Min 0 %	0.5 Min 1.6 %	0 Min 0 %	0.1 min. 0.2 %
Revision phases total	0 min. 0 %	8 min. 20.5 %	5 min. 11.4 %	5 min. 8.8 %	7 min. 23 %	23 min. 27.4 %	8 min. 15.7 %
Errors							
Formal errors	1.5 (0)	4.5 (0)	4 (0)	2 (0)	0.5 (0)	1.5 (0)	2.3 (0)
Punctuation	1 (0)	2 (0)	3 (0)	2 (0)		1.5 (0)	
Spelling	0.5 (0)	2.5 (0)	1 (0)		0.5 (0)		
Formatting							
Lexical errors	11 (5.5)	12 (5.5)	11.5 (3)	12.5 (6.5)	11.5 (3.5)	13.5 (10.5)	12 (5.8) 63.2 %
Lexical error rate (lexical errors per 100 ST words)							4.3
Semantic errors	11 (5.5)	11.5 (5.5)	11.5 (3)	11.5 (5.5)	11 (3.5)	13.5 (10.5)	
Collocation		0.5 (0)		1 (1)	0.5 (0)		
Blending							
Preposition							
Grammatical errors	3 (0)	3 (0)	3.5 (1.5)	3 (1)	2 (0)	1.5 (0.5)	2.7 (0.5)
Tense							
Case, number, agreement	0.5 (0)		1.5 (0.5)				
Modes			0.5 (0)		0.5 (0)		
Syntax	0.5 (0)	1 (0)		1 (1)			
Article	1 (0)	0.5 (0)	0.5 (0)	1 (0)		0.5 (0.5)	
Modality/illocution	1 (0)	1.5 (0)	1 (1)	1 (0)	1.5 (0)	1 (0)	
Infinitive							
Text-level errors	0 (0)	0.5 (0)	0 (0)	0.5 (0)	1 (0)	0 (0)	0.3 (0)
Text coherence		0.5 (0)			0.5 (0)		
Functional sentence perspective				0.5 (0)	0.5 (0)		
Rhetoric							
Other	1.5 (0.5)	1.5 (0.5)	2 (1)	2.5 (1)	1.5 (0)	1 (1)	1.7 (0.7)
Idiomacity/genre conventions	1.5 (0.5)	1.5 (0.5)	2 (1)	2.5 (1)	1.5 (0)	1 (1)	
Cultural specificity							
Total errors	17 (6)	21.5 (6)	21 (5.5)	20.5 (8.5)	16.5 (3.5)	17.5 (12)	19 (6.9)

Text B3 – 277 words	EVE	JZE	JTH	MLE	STO	THI	Ø
Error rate (total errors per 100 ST words)							6.9 (2.5) reflected 36.3 %
L1 errors	2 (0)	5 (0)	3.5 (0.5)	2 (0)	1.5 (0)	1 (0.5)	2.5 (0.2) 13.2 %
L1 error rate (L1 errors per 100 ST words)							0.9
Translation errors	15 (6)	16.5 (6)	17.5 (5)	18.5 (8.5)	15 (3.5)	16.5 (11.5)	16.5 (6.8)
Translation errors rate (translation errors per 100 ST words)							6.0
Logical errors (also included in translation errors)	2 (2)	3.5 (2.5)	2 (1)	2 (1)	2 (1)	1 (1)	2.1 (1.4)
Problem incidents and types							
Problem incidents (1st occurrence, 1st return, 2nd return, etc.)	33 + 2	20 + 6	22 + 2 + 1	38 + 8 + 1	16 + 1	38 + 10 + 3 + 2 + 1 + 1	27.8 + 4.8 + 0.8 + 0.3 + 0.2 + 0.2
Problem incident rate (1st occurrences, 1st returns, 2nd returns, etc. per 100 ST words)	11.9 + 0.7	7.1 + 2.2	7.9 + 0.7 + 0.4	13.7 + 2.9 + 0.4	5.8 + 0.4	13.7 + 3.6 + 1.1 0.7 + 0.4 + 0.4	10.0 + 1.7 + 0.3 + 0.1 + 0.1 + 0.1
Comprehension problems solved / unsolved	4 / 3	3 / 3	6 / 3	1 / 4	5 / 2	3 / 1	3.7 / 2.7 solved 57.8 %
Comprehension problem rate (comprehension problems per 100 ST words)							2.3
Production problems solved / unsolved	13 / 6	7 / 0	5 / 1	19 / 6	3 / 2	12 / 11	9.8 / 4.3 solved 69.5 %
Production problem rate (production problems per 100 ST words)							5.1
Combined comprehension and production problems (or not specifiable) solved / unsolved	5 / 2	3 / 4	4 / 3	3 / 5	3 / 1	3 / 8	3.5 / 3.8 solved 47.9 %
Combined comprehension and production problem rate (combined comprehension and production problems per 100 ST words)							2.6
Total problems solved / unsolved	22 / 11 solved 66.7 %	13 / 7 solved 65 %	15 / 7 solved 68.2 %	23 / 15 solved 60.5 %	11 / 5 solved 68.8 %	18 / 20 solved 47.4 %	17 / 10.8 solved 60.7 %
Problem rate (total problems per 100 ST words)							10.0
Estimated text difficulty (from 1 = very easy to 5 = very difficult)	2	2	2	1	1	no indication	1.6