



# Individual variables in the English classroom: Macro and micro perspectives

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# Introduction

- Importance of individual differences
- Problems in connection with researching them
  - Focus
  - Perspective
  - Time



# Problem 1.

Focus





# Problem 2.

## Perspective





Time

# Problem 3.





# Research project

- Investigating learners' motivation, emotions, and self-efficacy in the classroom together. (focus)
- Investigating learners' motivation, emotions, and self-efficacy in the classroom (state) and after solving language tasks (tapping into actual states). (perspective)
- Investigating learners' motivation, emotions, self-efficacy, and engagement/flow after solving language tasks four times over a two-year period. (time)



# Context of the present study

- Language learning takes place in formal instructional settings in Hungary
- Hungary: monolingual, with a population of around 10 million people, 99.4% with Hungarian as L1
- Capital city: Budapest with almost 2 million people
- Compulsory foreign language learning:
  - First FL: grade 4 (around age 10), five possible FLs (English being the most frequent);
  - Second FL: Grade 7/9: anything the school can offer
- EU statistics: Hungarian generally score low in FL knowledge compared to other countries



# Individual differences and task performance

- Importance of **motivation** (Dörnyei, 2009) and **self-efficacy beliefs** (Mills, 2014 ) in SLA
- Role of **emotions**
  - Anxiety (Horwitz, Horwitz & Cope, 1986)
  - Positive emotions (MacIntyre, Gregersen & Mercer, 2016)
  - Other emotions? (Pekrun, 2014)
- **Engagement/Flow**
  - Balance of perceived skills and challenges (Csíkszentmihályi, 1997)
- Relationships between individual differences and task performance have been examined in the past (e.g. aptitude (Kormos & Trebits, 2012); anxiety (Kim & Tracy-Ventura, 2011); creativity (Albert, 2021); working memory (Kormos & Trebits, 2011); etc.) but in isolation.





# Research questions

1. What are the characteristics of our sample in terms of ID variables like motivation, self efficacy, and different emotions they experience in the classroom (trait-like) and after performing a language task (state)?
2. What is the relationship between the variables tapping into general classroom-related experiences and specific task-related ones?
3. How can the narrative task performance of our sample be characterised along measures of accuracy, complexity (syntactic and lexical), and quantity of output?
4. What is the relationship between the task performance and different individual variables?



# Methods

- 52 students ( 18 male, 34 female, aged 16-18), level A2-B2 (reported by their teachers)
- 1st foreign language (31 English, 17 Italian, 4 German)
- Solving 2 types of written narrative tasks (1 task per student)
- Language performance measures
- Task questionnaire
- ID questionnaire

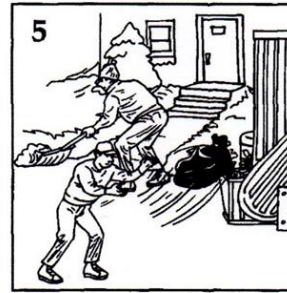
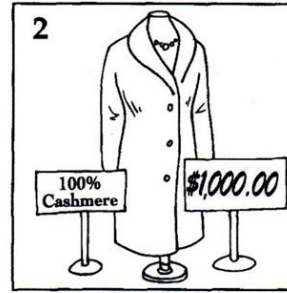


# Questionnaires

- Questionnaire measuring general classroom tendencies:
  - A standardized questionnaire eliciting information concerning a variety of learners' emotions (positive as well as negative), self-efficacy beliefs, and language learning motivation (based on the components of the L2 self system).
- Questionnaire measuring task-related variables:
  - Emotions previously tapped by scales represented by individual items here (emotion labels – confusion, pride, apathy, enjoyment, boredom, surprise, shame, hope, anxiety, curiosity, anger), plus statements about motivation, flow conditions, and self-perceived self-efficacy and self-perceived effort to complete task.



**1. A special birthday**  
Your task is to **write a story** based on these pictures. You may also add stages not shown by the pictures. Please, write at least 200 words.

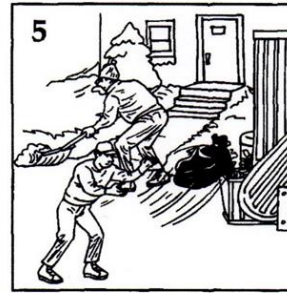
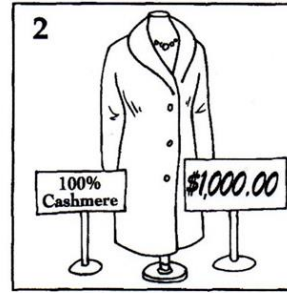


# Tasks



## 1. A special birthday

Your task is to write a story based on these pictures. You may also add stages not shown by the pictures. Please, write at least 200 words.



## Tasks

### 2. A special birthday

Your task is to write a story about a memorable birthday. Please, write at least 200 words.

# Task performance measures



<b>Quantity of output</b>	
Number of words	Total number of words produced in English
<b>Lexical variety</b>	
D-index (McKee, Malvern & Richards, 2000)	A value calculated with the help of a mathematical probabilistic model that plots the curve of type-token ratio against increasing token size
P_lex Lambda (Meara, 2001)	A value calculated with the help of a mathematical model (a theoretical Poisson curve) which helps to assess the lexical difficulty of texts. that is the number of difficult words in a text
<b>Syntactic complexity</b>	
Mean length of T-unit	The total number of words divided by the number of AS-units/T-units
Mean length of clause	The total number of words divided by the total number of clauses
Number of clauses per T-unit	The total number of clauses divided by the total number of AS-units/T-units
<b>Accuracy</b>	
	Number of errors per 100 words



# Results – task

	N	Min	Max	Mean	St. Dev.
Number of words	52	60	395	192.96	59.13
D index	52	31.90	100.79	55.83	15.28
P-lex lambda	52	0.25	2.05	0.82	0.345
Mean length of T unit	52	6.67	14.76	10.58	1.77
Mean length of clause	52	5.45	9.41	7.22	0.89
Clause per T unit	52	1.11	2.20	1.47	0.22
Errors per 100 words	52	0	19.90	5.86	4.33

# Results of classroom questionnaire



scale	Items	Cr. Alpha	N	Mean	St. Dev.
Ideal L2 self	5	0.89	52	4.38	0.79
Ought-to L2 self	8	0.83	52	3.94	0.75
Learning experience	5	0.87	52	3.64	0.81
Self-Efficacy	6	0.93	52	4.38	0.79
Hope	6	0.88	52	3.98	0.85
Enjoyment	5	0.80	52	3.58	0.73
Pride	5	0.88	52	3.29	1.01
Curiosity	6	0.86	52	3.09	0.83
Shame	5	0.87	52	2.91	1.05
Anxiety	5	0.71	52	2.78	0.83
Confusion	5	0.84	52	2.69	0.91
Boredom	5	0.89	52	2.41	0.93
Apathy	4	0.82	52	2.27	1.03



# Results of task questionnaire



	Items	Cr. Alpha	N	Mean	St. Dev
Positive emotions	5	0.72	52	2.46	0.87
Negative emotions	6	0.79	52	2.12	0.91
L2 motivated self-system	3	0.84	51	3.01	1.07
Flow/ engagement	4	0.74	51	3.27	0.82
Self-efficacy	3	0.81	51	3.67	0.99

# Relationship between questionnaires



scale	Mean CLASS Q	St. Dev. Class Q	Mean TASK Q	St. Dev. TASK Q	Pearson correlation
Ideal L2 self	4.38	0.79	3.32	1.30	.34 (p=0.014)
Ought-to L2 self	3.94	0.75	3.09	1.20	.19 (p=0.169)
Learning experience	3.64	0.81	2.64	1.21	.29 (p=0.039)
Self-Efficacy	4.38	0.79	3.44	1.40	.35 (p=0.011)
Hope	3.98	0.85	2.23	1.21	-.06 (p=0.640)
Enjoyment	3.58	0.73	2.27	1.18	.28 (p=0.047)
Pride	3.29	1.01	2.80	1.37	.30 (p=0.028)
Curiosity	3.09	0.83	2.11	1.18	.17 (p=0.224)
Shame	2.91	1.05	1.62	1.07	.45 (p=0.001)
Anxiety	2.78	0.83	2.05	1.28	.42 (p=0.002)
Confusion	2.69	0.91	2.15	1.30	.58 (p<0.0001)
Boredom	2.41	0.93	2.50	1.27	.34 (p=0.011)
Apathy	2.27	1.03	2.36	1.44	.40 (p=0.003)

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# Correlations

	Positive emotions	Negative emotions	Motivation	Flow/engagement	Self-efficacy
Number of words	.174	-.308*	-.011	.353*	.288*
D index	-.157	-.133	-.120	-.042	.228
P-lex lambda	.056	-.127	.185	-.090	-.011
Mean length of T unit	-.079	-.282*	.090	.137	.263
Mean length of clause	.179	-.079	.189	.126	.207
Clause per T unit	-.241	-.255	-.053	.051	.137
Errors per 100 words	-.132	.147	.085	.011	-.411**



# Correlations

	Positive emotions	Negative emotions	Motivation	Flow/engagement	Self-efficacy
Number of words		-.308*		.353*	.288*
D index					
P-lex lambda					
Mean length of T unit		-.282*			
Mean length of clause					
Clause per T unit					
Errors per 100 words					-.411**



# Conclusions

- Learners' motivations, self-efficacy beliefs and language classroom-related emotions can be investigated both at a general and more specific (specific language task) levels, and there seem to be moderate relationships between these two.
- Relationships seem to be stronger in the case of negative emotions, so those learners who experience negative emotions in connection with their language classes are more likely to experience these in connection with any given task than those experiencing positive ones.
- It seems possible to establish links between task-specific situational variables like motivation, self-efficacy, emotions and flow and task performance measures; these relationships might be context dependent.
- On this sample, affective variables were related to the the amount of output produced, which might have relevance for SLA (Swain, 2005).

# Implications



- Examining several individual variables in concert seems to be a viable approach
- Linking classroom-level and task-level IDs also seems possible
- Thus, it might be useful if in future ID research the principles applied here would be adopted



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Thank you for your attention!  
Questions?

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