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MOTIVATION AND ATTITUDE OF INTERNATIONAL STUDENTS TOWARDS LEARNING HUNGARIAN

MACRO- AND MICRO ANALYSES

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Ph.D. Dissertation

by

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STATEMENT

This dissertation, written under the direction of the candidate's dissertation committee and approved by the members of the committee, has been presented to and accepted by the Faculty of Modern Philology and Social Sciences in partial fulfillment of the requirements for the degree of Doctor of Philosophy. The content and research methodologies presented in this work represent the work of the candidate alone.

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SIGNATURES

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Thesis for obtaining a Ph.D. degree in the Doctoral School of Multilingualism of the University of Pannonia

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ABSTRACT

In Foreign Language learning **motivation, anxiety,** and **attitude** play a key role (Pham & Pham, 2021; Tovar Viera, 2016; Jain & Kaur Sidhu, 2013). Dörnyei (2001) also points out that the classroom is such a complex place that a single motivational principle cannot explain what happens in it because motivation is a complex, composite entity with distinct components and state-like context-specific components (Dörnyei, 2006). Also, anxiety (MacIntyre, Dörnyei & Henry, 2015) and attitude (Dörnyei, 2010; Galántai & Csizér, 2009) are complex constructs and may interact **dynamically** over time during the language learning process (Dörnyei, 2009, 2014; Dörnyei & Ushioda, 2011; MacIntyre & Legatto, 2011). A dynamic interaction of all these factors will lead to variation (differences among individuals) and variability (differences within individuals) (Lowie & Verspoor, 2019). Despite the differences in research methods used and the conceptualization of various motivational configurations, the common view among these studies is to treat motivation anxiety and attitude as dependent constructs characterized by multiple guiding variables. Current approaches have also called for an integration between these constructs and language learning situations in the FL classroom.

Using this multi-variable approach, the first study explores motivation, anxiety, and attitude in 280 international students in Hungary taking courses in L2 Hungarian with a 34-item questionnaire along with a few qualitative questions. As expected, the motivation, anxiety and attitude were strongly related, and the self-guides (Dörnyei & Csizér, 2005) emerged as strong predictors for motivated behavior and attitudes and had a negative correlation with language anxiety. Anxiety correlated with self-confidence, and language proficiency has the highest correlation with attitude. Finally, the attitude towards the course correlated highly with the attitude towards the community. Learners who report high Ideal selves are thus most likely linguistically self-confident and exhibit a motivated behavior which encourages them to be exposed to Hungarian outside their classrooms and to have a positive attitude toward the community, the Hungarian language, and their teachers.

In the second study, the motivational dynamics (Waninge et al., 2014) in three classroom session measured the fluctuating motivational levels of four students. As expected from the literature, there was variation (no student was alike) and variability as students even changed in motivation during one session and across session sessions. Individual students reacted differently to the context; however, they were all less motivated during grammar practice.

Implications are that in future research on self-regulation a large variety of differences in regulatory orientations and strategies should be addressed. Also, to have a better understanding of the different motivational processes that accompany foreign language learning, it is important to experiment with different languages other than English in different contexts. Implications for the classroom are that learners' ideal selves could be integrated into lessons and part of the assessment could be a self-assessment questionnaire to gain a complete image of the learners' ideal and current selves.

Keywords: *second language learning, foreign language learning, motivation, anxiety, attitude, complex dynamic systems theory,*

DECLARATION OF ORIGINALITY

I hereby certify that I am the sole author of this dissertation and that no part of this dissertation has been published or submitted for publication.

I certify that, to the best of my knowledge, my dissertation does not infringe upon anyone's copyright nor violate any proprietary rights and that any ideas, techniques, quotations, or any other material from the work of other people included in my dissertation, published or otherwise, are fully acknowledged in accordance with the standard referencing practices. Furthermore, to the extent that I have included copyrighted material that surpasses the bounds of fair dealing within the meaning of the Hungarian Copyright Act and the Copyright Directive of the European Union, I certify that I have obtained permission from the copyright owner(s) to include such material(s) in my thesis and have included copies of such copyright clearances to my appendix.

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To mom and my fiancée

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LIST OF ABBREVIATIONS

Abbreviation	Definition
2X2	The self-guides own and other
AMOS	Analysis of a Moment Structures
AMTB	Attitude and Motivation Test Battery
BA	Bachelor's degree
CA	Communicative Anxiety
CDST	Complex Dynamic Systems Theory
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
DS	Dynamic Systems
FL	Foreign Language
FLA	Foreign Language Anxiety
FLCAS	Foreign Language Classroom Anxiety Scale
FLL	Foreign Language Learning
IBM	International Business Machines Corporation
ID	Individual Differences
L2	Second Language
L2MSS	Second Language Motivational Self System
LA	Language Anxiety
LEN	Microsoft Excel function that counts characters
M	Mean
MA	Master's degree
RMSEA	Root Mean Square Error of Approximation
SD	Standard Deviation
SEM	Structural equation modeling
SH	Stipendium Hungaricum scholarship
SLA	Second Language Acquisition
SLL,	Second Language Learning
SPSS	Statistical Package for the Social Sciences
TL	Target Language
TLI	Tucker Lewis index
TPF	Tempus Public Foundation
CEFR	Common European Framework of Reference for Languages
SA	Study abroad

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Chapter 1. Introduction

1.1. The context of studying in Hungary

Hungarian classrooms grow ever more diverse with students linguistically and ethnically different, whose purposes of study range from learning and acquiring foreign languages to other extralinguistic factors. Language classrooms in Hungary mostly follow a traditional seating arrangement that encourages individual productivity yet unevenly distributes information amongst the class (see Khelifa, 2021). A language classroom is a complex environment that is the setting for balanced inner states interacting within a context and may result in different foreign language learning outcomes. Modern classrooms, however, exhibit more seating arrangement modalities that are student-centered and favor teacher and student cooperation. Classroom activities, in this regard, should be tailored and renovated from attitudes towards certain activity types to appeal to the majority. Hundreds of international students have been enrolling in Hungarian universities, courtesy of the Tempus Public Foundation under the Stipendium Hungaricum program. With the increase of students, the implementation of a mandatory Hungarian language classroom is necessary and will be compensated for by generously rewarding credits. The Hungarian language course aims to help students better understand basic daily conversations and express their needs, bringing a wide variety of themes. Students are familiarized with Hungarian in this classroom and are instructed by a native speaker, which greatly influences their pronunciation of difficult words. Their Hungarian teacher implements Hungarian as a FL course book, "MagyarOK," in the classroom, which is rich with opportunities for practice after listening and reading activities and emphasizes conversational skills. Besides the language classroom sessions, which are scheduled twice a week, students are exposed to Hungarian almost daily with varying amounts and are encouraged to practice the language at their student dormitory or outside with the locals. While it is crucial for students to learn the language, some of them take this course for the credits and may not be motivated to learn as their duration of stay influences their priority.

Hungarian universities host undergraduate and graduate studies for international students along with Hungarian students, with some language courses in Hungarian and other optional language courses. Ideally, each student is multilingual with English as their second language (L2) or foreign language (FL). Scholarship holders must reside within Hungarian borders in accordance with their

academic contracts for the duration of their studies. Among other scholarship requirements, students need to achieve A1 proficiency in Hungarian after their first year to keep their scholarship disbursement. Hungarian is a Finno-Ugric language characterized by agglutination and undetermined word order, and it distinguishes itself from Slavic, Germanic, and Romance languages. Hungarian's difficulty lies in the highly inflected nouns, which can assume any other possible forms with prefixes and suffixes. The lack of familiarity with the language also has to do with the fact that Hungarian is only spoken in Hungary, among Hungarian minorities in the neighboring countries and in the diaspora (e.g., the USA, Brazil, etc.). In addition to the fact that visitors have had little to no exposure to Hungarian before, the degree of intelligibility with their native languages is limited.

1.2. Problem statement

This study aims to investigate the needs of international students who report different language learning experiences. Most students also report their inability to master the Hungarian language despite their length of stay and express their lack of interest in improving their proficiency after the novelty of the language wears off. These issues, from both the Tempus Public Foundation TPF and language teachers' perspectives, have been addressed in several official decisions on the teaching material and scholarship requirements. However, it soon became clear that the in-classroom visualization from which teachers and language textbook "MagyarOk" editors expected their students to have gained A1 proficiency during their first year was generalized and distant from the appealing content and instructions that students were hoping for. For example, as a student preparing for their Hungarian homework, they are likely to need more practice, but it may not have been one that focused on their specific needs as the couple of sessions they attend weekly may miss the basic practice and seem to be moving fast in the curriculum. This is not so much a criticism of the current practice teaching method as a reflection of the causes and consequences of the ebbs and flows of the subsystems that affect students' performance and proficiency.

Teachers often wonder how they can motivate their students and develop positive attitudes, and how they can measure their motivation, anxiety, and attitude. Giving a simple answer to the first question is not easy, because many factors engage in motivation, anxiety, and attitude. For the second question, there are answers which have been provided by numerous sufficiently validated qualitative and quantitative studies. These studies show significant correlations between these factors and language learning. The affective characteristics related to language learning that elicited

the most research studies are, without any doubt, motivation, anxiety, and attitude. However, an umbrella theory of sufficiently generalized motivation does not exist, as most researchers agreed in the Palgrave handbook of motivation for language learning (2019). There are multiple theories of motivation for language learning which we will be going through in the literature review. Anxiety and attitude are a product of cognitive and affective elements that can be favorable or unfavorable and which predispose one to act in a particular way. Although these factors are enduring, they can be changed by experience and by motivation. Also, positive, or negative attitudes can contribute to motivate or demotivate language learners, while anxiety may impact motivation and attitude. These factors determine how a person will approach others or react to events that will arise during language learning. Motivation, anxiety, and attitude intervene in the learning process and need to be addressed as they often occur in interaction with the teacher, with the language course, and with the community.

Students perceive themselves and the value of the learning process. They are aware whether they can accomplish their learning goals and whether they are competent at their current level or at some point in the future. The literature review sheds light on this psychological approach to motivation. Dörnyei (2009) introduced the second language L2 motivational self-system, revisiting Gardner's (1985, 2001, 2006) theories of integrative motivation, also known as integrativeness, and other motivation theories. Dörnyei (2009) presented the self-guides that illustrate the learners' visualization of their actual self, their ideal self, and the desire to bridge that gap. Learning motivation is manifested through the learners' cognitive engagement and their perseverance in learning, which contributes to their performance and positive attitude toward language learning. Moreover, learners perceive the value of the work to be done and consider themselves capable of succeeding through these motivational dynamics. The perceptions that students have of their ideal self favorably influence their motivation and attitude. This dynamic motivation is recommended for teachers who wish to improve their students' motivation.

The motivation and anxiety levels observed in one of the students will be insufficiently similar to those observed in the others. Consequently, each of the teachers and students contributes to the classroom environment and the inter-influential factors that affect learning and teaching altogether. Having defined the subsystems relevant to this study's analytic approach, we can now consider the relationship and factor correlation between students' individual characteristics IDs, their attitudes, anxiety, and motivation, and what this study will implicate in our understanding of learning the

target language TL while studying in the host country. The key aims of this study are to study the international students' main influencing factors, following cross-sectional and longitudinal approaches to visualize the macro motivation and anxiety levels and understand the fluctuating dynamicity of these factors within a micro-study in the classroom. To some extent, qualitative exploratory feedback that we recorded anonymously from the students at a Hungarian university also contributed to understanding the situation and what to ask in the national-level survey.

1.3. Research objectives

What is the link between motivation, anxiety, and attitude? These elements are the basis of our study on international students taking Hungarian lessons in Hungarian universities. Through a questionnaire and classroom observations, we aim to understand the correlation between motivation, language anxiety, and attitude (towards the community, the course, and the teacher) and how they affect each other. Before proceeding to the presentation of our theoretical framework, we must specify the context of our study. With these definitions, it is possible to better understand the context and the challenges facing our respondents. In the next part, we will define the research questions that articulate our study. As we mentioned in the introduction, we will analyze the correlation between motivation, anxiety, and attitude. This dissertation aims to examine how these factors interact with each other, and we chose to ask international students living in Hungary to complete this study. We have structured the latter in the form of these research questions.

1.4. Research questions

We proposed a revision of the literature background addressing theoretical and operational concerns. Based on the literature review, we predicted some variables would be the most influential, and proposed to investigate the following research questions:

1: What characterizes the interrelationship of motivation, anxiety, and attitudes throughout learning Hungarian in classroom?

2: To what extent can variability and stability be detected in students' in-class motivation context?

3: What characterizes the change in motivation levels on the individual-level and group-level?

4: What is the effect of context on change, variability, and stability?

It is from these questions that we will conduct our study. In the next part, we will describe the theoretical framework and previous research. Having defined the motivational factors related to

learning a second language, we will explain how they will be integrated into our study to better understand the language attitudes of our respondents.

1.5. Dissertation overview

This dissertation comprises four chapters with the current and following chapters being devoted to the background and setup for the study. The researchers investigated the interrelationship of motivation, anxiety, and attitudes in the macro-study with a nation-wide survey, and studied the change, variability, and stability in a classroom context in the micro-study with the use of motivational dynamics instrument (the motometer). Although each of the researchers consider a different theory in the literature review, they sometimes agree on common constructs and approaches after decades of reviews and trials. These theories are combined with explanatory tables to easily introduce supporting arguments and critics (Chapter 1). This is followed by an outline of the methodology that has been designed particular for this study (Chapter 2). The extent to which these detailed questionnaire elements and items and the process in which it was developed is then described in detail. The decisions that have been made about the study design and questionnaire are then discussed. The exploratory study laid ground to the macro-study, then a micro-study was necessary to explore the interaction between motivation and other factors in classroom context. The findings and analysis are presented in tables and figures to study factors correlations and relations, while students' language performance and/or learning outcomes are out of the scope (Chapter 3). Throughout the findings, illustrations are drawn from IBM SPSS statistics 22.0 and Amos 23.0 for the sake of clarity to focus on elements and on a range of constructs that were found similar to some empirically based studies. The researchers reflect on previous studies and discuss this study findings to answer the research questions in the discussion chapter (Chapter 4), then draw conclusions in the subsequent chapter (Chapter 5). The conclusion also includes implications in teaching to provide additional insight that researchers/teachers may find hopeful to work on.

Chapter 2. Literature review

2.1. Complex Dynamic Systems Theories (CDST)

Larsen-Freeman (1997) and Cameron & Larsen-Freeman (2007) originally introduced Complexity Theory in SLA studies, simultaneously Dynamic Systems Theory was advanced by Van Geert (2009) and de Bot et al. (2007), which combined in language development, are referred to as Complex Dynamic Systems Theory (CDST) (Larsen-Freeman, 2016). Cameron & Larsen-Freeman (2007) define CDST as constantly adapting and creating new conditions through self-organization and emergence, language development as a pattern shaped by experience, social interaction, and cognitive processes, and that language acquisition as different facets of the same system (Becker et al., 2009).

These are not the only factors interacting, as internal and external determinants influence development as cluster factors, and as growth and decay within the bi/multilingual system includes more factors to account for (de Bot & Larsen-Freeman, 2011). Due to interconnectedness and non-linearity added to variability, it is difficult to predict a development, and despite the acknowledged finding that initial conditions could influence system development (Larsen-Freeman, 1997; de Bot et al., 2007; de Bot & Larsen-Freeman, 2011). Variables are in complex and multitude interactions and are subject to change over time (Larsen-Freeman, 2019) which then leads to variation among individuals (de Bot et al., 2007). Occasionally, the system prefers 'attractor' states at point in time over other 'repeller' states as described by de Bot & Larsen-Freeman (2011).

Complexity theory was introduced into language learning by Larsen Freeman (1989, 1991, 1994), explaining that languages can be described as complex systems because they consist of many different but interdependent and thus interchangeable subsystems. The overall behavior is due to the interaction of the subsystems. Due to this complexity, Larsen Freeman (1989, 1991, 1994) argues that the components of a complex system are always interacting and therefore dynamic. This suggests that changes in a particular individual factor are likely to lead to changes in other subsystems. In recent years, the fundamental role of context has been increasingly recognized as an essential element in language learning. Many studies have looked at the dynamic relationship between individual differences and learning situations, showing that learners may need to adapt not only to changes in their environment. This applies to students who choose to study

abroad, as in this case. Indeed, it is impossible to separate a person from the context and ignore the effects of other factors.

Change: Nothing in the Complex Dynamic System is fixed and static (Waldrop, 1992). Although the static characterization of individual differences has never been explicitly explained, most researchers believe that certain learner characteristics theoretically influence language learning success. One may reach the stage of stability, but motivation will change in any case, which must be considered as a process rather than a state.

Space: CDST results are displayed on topographic images to view time from a spatial perspective. Changes in the system are viewed as orbital movements through 'state space'. As the learner's motivational system moves through the state space, it interacts with other systems that are the attractors to which the system is usually temporarily settled (Larsen-Freeman, 2014).

Complexity: As the system moves through space-time, patterns are displayed. The CDST key concept of self-organization refers to a set of processes in which order emerges from the interaction of system components, without instructions from external factors and without order planning embedded in a single component (Mitchell, 2003). The new behavior of complex systems emerges from the self-organizing interactions of their components. Therefore, CDST is about understanding how patterns emerge from interacting components within the ecosystem in which they function (van Lier, 2000).

Relationships: What is important in a complex dynamic system is the interdependence between its components. It is important to recognize that learning elements overlap and interact with each other. If you separate one factor from another and study it at the same time, it is not possible to measure its effect on other sub-systems (Larsen-Freeman, 2014).

Nonlinearity: Complex dynamic systems that reach this criticality are unstable, unpredictable, and quite chaotic. While it is certain that the effect follows the cause, it is not possible to accurately predict when and how much the cause will affect it. Therefore, predictions are appropriate for times of linearity. Once the system enters nonlinearity, the results are unpredictable (Larsen-Freeman, 2014). For researchers, this means that general regression models are inadequate for studying complex systems (Byrne & Callaghan, 2014). When the system becomes non-linear and therefore unpredictable, it is important to identify an indicator of significance. Behaviors can be explained in hindsight and predicted based on general trends, but the reliability of the predictions always depends on one of the myriad unconsidered factors (Larsen-Freeman, 2014).

CDSs exhibit sensitive dependence on initial conditions: Minor changes in initial conditions can have far-reaching effects on future behavior, for instance factors that make the experience unsatisfactory; Class hours, instructors, grades, interactions with other students, and more. Changing these factors will increase learner motivation and lead to better outcomes. The small effect of a nonlinear system can have a large effect at a later point in time. Systems with different initial conditions follow different trajectories and lead to different outcomes. Sensitive dependence on initial conditions may give the impression that the system is only sensitive to small perturbations at the initial point. At any point in the evolutionary trajectory of a system, even the slightest impact can take the system in a different direction (Larsen-Freeman, 2014).

Openness and nonfinality: A complex system is open, interacts with its environment, and evolves without a final state, thus, it is called self-modifying. While a complex system is open to external influences, it will continue to move and change. Complex dynamic systems do not intersect but are repeated by returning to the same state space (Larsen-Freeman, 2014).

Feedback sensitivity/adaptation: The order of complex dynamic systems is characterized by high feedback sensitivity. In some cases, a change leads to either reinforcement (positive feedback) or mitigation (negative feedback) of that change. Complex systems adapt by changing in response to all types of feedback. In other words, the adaptive system changes in response to feedback from the changing environment. So complex dynamic systems do not remain passive to changing events and adapt to a constantly changing environment (Larsen-Freeman, 2014).

Context-dependent: Van Geert and Fischer (2009) argue that development is related to the interaction of individuals and contexts over time. Learners are connected to the learning environment, and neither the learner nor the environment is perceived as independent. Unlike other places, it is not difficult to imagine how a person's presence in a place at a particular time affects motivational dynamics (Dörnyei, 2009). It is important to consider context as an important variable.

Complex systems also have non-Gaussian distributions: The Gaussian distribution is a bell-shaped curve whose center represents the average behavior that can be used in a linear system. Complex systems have a non-Gaussian distribution, which often results in infrequent behavior at the edges of the bell curve. Furthermore, calculating the average behavior makes little sense in terms of the behavior of the components and agents that make up the system (Larsen-Freeman, 2006).

A sample-based model does not automatically generalize to a model for an individual process. As van Geert notes, studies of individual orbital models show that such orbitals cannot be reduced to the orbitals of a general orbital model based on process information/deviations (van Geert, 2011). One possibility is to look at intraindividual variability of individual factors rather than interindividual variability at the population level (Molenaar & Campbell, 2009). Individual case studies may not tell us much about the population of language learners, but they are related to theory (van Geert, 2011). The second way is to identify a particular configuration in the state space. The possible configurations at the abstract level are numerous, but not infinite. The third possibility is to develop a science that brings justice to key aspects of complex reality using the emergency of non-linearity, which differs from regression expansion prediction and linear modeling (Byrne & Callaghan, 2014).

2.2. Individual differences in second language studies

Psychologists working in the field of individual differences use IDs to refer to the dimension of personality which is common to all individuals. IDs interact with social factors that lead to specific behaviors of everyone. The notion that certain behaviors determined by the underlying personality dimension will further facilitate language learning. Having the perfect profile of a successful language learner is appealing. The ideal learner should be an excellent communicator with a good memory, enthusiastic, motivated, creative, and willing to take risks. However, many applied linguists who researched the source of IDs in SLAs have been able to contribute relatively few insights. The study of IDs in SLA needs to be fully visualized from the necessary independent variables to the dependent variables.

There are individual differences between language learners in terms of their success in learning a second language. Therefore, the study of individual differences is a specific area of L2 studies. There are learning factors that contribute to students outperforming each other, especially their engagement in learning. IDs are widely used in L2 studies, and this area has become one of the most thoroughly studied psychological aspects of SLA second language acquisition. IDs have been shown to be a consistent predictor of success in L2 learning. Nevertheless, the components of IDs remain unfulfilled in their definition. Therefore, the concept of ’individual differences’ is rather controversy and includes certain core variables and many optional variables.

Individual differences (IDs) variables have been repeatedly shown to contribute significantly to language learning success (Dörnyei, 2005). Therefore, in recent decades, research on individual variables has increased and more diverse situations have emerged to explain differences in foreign language acquisition. This diversity is a lot of research that asserts the ultimate importance of various ID elements such as motivation (Dörnyei & Ushioda, 2011), language talent (Skehan, 2012), personality (Ehrman, 1996), and anxiety (Horwitz & Young, 1991). In applied linguistics research, the number of ID variables seems to be steadily increasing with the introduction of constructs such as communication motivation, creativity, and self-efficacy. These ID factors interact with other contextual factors and change over time. That is, they are no longer considered a stable characteristic of learners (Dörnyei, 2010). Dörnyei (2009) outlines three frameworks: motivation, cognition and affect to identify a constellation of relatively stable learner characteristics in language learning. The complex relationships include motivated learning behavior and language learning motivation in terms of language learning experience (Csizér & Dörnyei, 2005), self-efficacy (Bandura, 1997), and effect of facilitative effects (Eysenck, 1979; MacIntyre & Gardner, 1989) foreign language learning anxiety (Horwitz & Young, 1991), as constructs of the motivational cognitive-emotional framework proposed by Dörnyei (2009).

2.3. Language anxiety

Language anxiety is perceived as the anxiety-induced climate decreasing L2 proficiency. “Anxiety is quite possibly the affective factor that most pervasively obstructs the learning process” (Arnold & Brown, 1999, p. 8). Anxiety has been the focus of L2 research for decades, and there are several published research instruments in this area that have been widely used in research (Gardner, 1985; Horwitz, Horwitz & Cope, 1986; MacIntyre & Gardner, 1991, 1994). Whether anxiety is a motivational factor, a personality trait, or an emotion continues to be debated. In fact, anxiety is often considered as a complex system with distinctive characteristics. Anxiety is thus a complex entity with several distinct aspects. As Scovel (2001) shows, the extent of state anxiety affects a person's characteristic level of anxiety. MacIntyre (2002) concluded that the overall outcome of anxiety might even be positive, as increased effort is a common response to anxiety.

Language anxiety (LA) can be relatively stable over time and can cross these somewhat arbitrary boundaries when responding to different triggers or adopting resilience strategies with different effects or shift to immediate stimulation depending on the situation. The most stable dysfunction

in the perspective is a clear personality trait that is stable over time and under different circumstances. Individuals who characterize anxiety are more likely to develop LA than others. More situations elicit a response with more negative emotions when they occur (Spielberger, 1987). Such characteristic anxiety tends to respond to situational anxiety in anticipation of threatening situations. Unlike characteristic anxiety, situational anxiety is triggered by specific situations. Those suffering from state anxiety experience an unpleasant emotional response when they cognitively assess an unfavorable situation (Lazarus, 1991). This means that in certain situations, such as language classes, there is fear of negative evaluation and their limited linguistic knowledge and performance may be put to the test (Horwitz et al., 1986).

The concept of time and timescale is integral to the perception of LA. Given that language learning itself is constantly occurring on multiple time scales, LA is necessarily a dynamic variable (MacIntyre, Dörnyei & Henry, 2015). Between the steady and continuous variability of LA, anxiety-related patterns can be deduced. LA is linked to a variety of other variables that are constantly changing in individual differences and language. Through interaction, these systems are in constant flux. It is inappropriate to separate one variable out of this interconnected system for separate analysis. LA overlaps with other variables on different time scales. However, as language development progresses and learners experience daily success in their communication skills, their own self-efficacy increases and releases their uncomfortable tensions.

Previous studies have shown that LA interacts with personal and emotional learning variables. Boudreau, MacIntyre, and Dewaele (2018) also implemented emotional variability when implementing singular mechanical techniques to observe frequent adjustments in second language communication, leading to fluctuating correlation patterns. There is also an inextricable relationship between LA and linguistic variables that influence each other. For example, increased exposure to foreign languages, higher feelings of linguistic self-competence, and early L2 acquisition in life are generally associated with lower LA. Such variables are enhanced when learners use foreign languages with other speakers (Dewaele, 2013).

Horwitz et al. (1986) conceptualized foreign language anxiety, as a situation-specific anxiety, that results from linguistic deficits. To make this configuration explorable, an instrument with 33 items and a 5-point Likert scale was introduced, the Foreign Language Classroom Anxiety Scale (FLCAS). As summarized by Horwitz (2001), language anxiety proved to be a relatively independent factor and showed little correlation with general trait anxiety. This suggests that this

factor is clearly a variable related to the L2, as well as the transfer of anxiety from other domains such as test anxiety and communication anxiety. According to MacIntyre's (1999) definition, language anxiety includes negative emotional responses to L2 learning.

Studies by MacIntyre and colleagues (MacIntyre, 1999, 2001, 2002; MacIntyre & Gardener, 1991, 1994) show that performance in a second language is negatively correlated with language anxiety. Therefore, MacIntyre (1999) attributed the often-contradictory results of previous studies on the relationship between language anxiety and L2 performance to the conflicting terms of the anxiety scale used, which MacIntyre and Gardner (1993) had highlighted in a major experimental study investigating the causal relationship between anxiety and academic performance. In short, language anxiety is not a function of low performance. Empirical studies on SLA show that anxiety, when conceptualized as a situated L2-specific component, correlates negatively with L2 performance (e.g., Horwitz, 2001; MacIntyre, 1999; MacIntyre & Gardner, 1994; MacIntyre, Noels, & Clément, 1997).

However, the actual effect of the variable also depends on the interaction of anxiety with other factors. Gregersen and Horwitz (2002) related language anxiety to perfectionism, and Dewaele (2002) discussed the combined effects of anxiety and introversion in his studies. Gardner and MacIntyre (1993) also found that the effects of anxiety depend on the social environment and multicultural settings are likely to enhance the correlation of language anxiety, self-perception of L2 ability, attitude, and motivation. It features a complex structure that combines elements in play, corresponding to the view of Clément (1980). In summary, this ID variable is arguably an important learner characteristic for L2 acquisition and use.

Anxiety can be considered part of a separate independent variable or a larger construct, reflecting the ambiguity in the psychological literature of all ID variables. Language anxiety is often an important variable in L2 language performance research. Oxford (1999) emphasized the ambiguity of the literature on the possible benefits of anxiety. Rodriguez and Abreu (2003) found that language anxiety is stable in target language classroom. Spielmann and Radnofsky (2001) showed that learners reported that they experience a personality change in the target language that puts them under pressure. This tension is either beneficial or inhibitory to the learner depending on the learner's experience in a particular situation. Most studies claim that language anxiety adversely affects language behavior. A relaxing environment is a basic requirement for teaching (Larsen

Freeman, 2000) and generally promotes student-centered methods to reduce learning anxiety and stress.

Foreign language anxiety has been shown to interfere with the success of foreign language learning and to hinder the language learning process (Horwitz & Young, 1991). Horwitz, Horwitz, and Cope (1991), along with MacIntyre and Gardner (1991) and MacIntyre (1999), have proposed that foreign language anxiety is a form of situation-specific anxiety that is experienced as recurrent in a foreign language learning situation.

This suggests that anxiety can have both positive and negative effects on language learning. Both extremes have produced ambiguous results in quantitative research. Another area of theoretical uncertainty concerns the problem of measuring anxiety in foreign language learning. Currently, the most widely used method for measuring language anxiety is the Foreign Language Class Anxiety Scale (FLCAS; Horwitz, 1991). This instrument is designed to measure the components of communication anxiety, fear of negative evaluation, and test anxiety. However, the FLCAS focuses on measuring debilitating anxiety, particularly in the context of speaking in a foreign language class (Horwitz, Horwitz & Cope, 1991; MacIntyre & Gardener, 1989). Therefore, the debilitating and facilitating nature of anxiety is disregarded.

Learners are innately prone toward anxiety, but they may also experience anxiety in certain situations regardless of their personality. Foreign language anxiety FLA is a particular form of situational anxiety. Early studies on FLA were conducted by analyzing students' diaries. It was found that learners were often anxious in the classroom, especially when they felt they were competing with other learners (Bailey, 1983). Subsequent studies adopted a quantitative approach based on questionnaires. The Foreign Language Class Anxiety Scale (Horwitz, Horwitz & Cope, 1986) focused on general anxiety in the foreign language classroom. Many studies have shown that anxiety is negatively associated with performance in the L2. However, as with motivation, whether anxiety is the cause, or the result of deficient performance is important. This issue has generated considerable controversy.

Spielman and Radnofsky (2001) describe anxiety as 'euphoric', a stressful event that lacks negative features, or 'dysphoric' a stressful event that lacks positive features. Table 1 displays both concepts in details.

Table 1. Spielman and Radnofsky's (2001) anxiety types and triggers

Types of anxiety	Triggers
Euphoric tension	Learner's attempt to accustom themselves to the target language
Dysphoric tension	Mismatch between the ideal learning ways and needs, and the instructional program

Educational programs must not only avoid dysphoric tension, but also maximize the benefits of learning from euphoric tension (Spielman and Radnofsky, 2001).

Table 2. MacIntyre and Gardner's (1994) proposition of language anxiety stages

Language anxiety's principal stages	Stage characteristics and triggers	Common challenges for every stage
Input stage	learner's ability with unfamiliar external stimuli	key processes can be inhibited by anxiety
Central processing stage	learner's task to memorize the input	
Output stage	retrieving previously acquired material	

MacIntyre and Gardner (1994) developed a questionnaire to examine anxiety associated with the stages of acquisition in Table 2, the psychometric characteristics of which were later validated (Onwuegbuzie, Bailey & Daley, 2000). Anxiety is an educationally sensitive learning factor that also has a positive side (Spielman & Radnofsky, 2001). As suggested by MacIntyre and Gardner (1994), linking anxiety to a processing model helps teachers refine their intervention.

Anxiety transfer: This approach implies that individuals who are generally anxious in certain situations are more likely tend to report anxiety in the context of foreign languages. The tendency to experience anxiety in different contexts (Spielberger, 1983) or to experience it in specific situations (MacIntyre & Gardner, 1991; MacIntyre, 1999) is consistent with the anxiety transfer approach. Subsequent studies have, examining L2 anxiety, measured either trait/state anxiety (Manifest Anxiety Scale, Taylor, 1953; the State/Trait Anxiety Inventory, Spielberger, Gorsuch, &

Lushene, 1970; Spielberger, 1983) or situation-specific anxiety in terms of test anxiety (Sarason & Ganzer, 1962) and communication anxiety (McCroskey, 1970).

Unique transfer: The anxiety experienced in the L2 context is understood as a situation-specific anxiety aroused by the learning and use of L2. In line of unique transfer approach, anxiety scales of the studies pursued in this approach were designed to specifically use anxiety in the foreign language FL classroom (Gardner, Clément, et al., 1977; Gardner, Clément, Smythe & Smythe, 1979). Table 3 shows a side-by-side comparison of both anxiety types.

Table 3. Horwitz & Young (1991) and MacIntyre (1999) approaches to anxiety L2 studies

Study approach	Conceptualizations
Anxiety transfer	other forms of anxiety transferred to L2 learning
Unique anxiety	a construct of anxiety specific to the language acquisition context (Gardner, 1985)

Common points in anxiety transfer and unique anxiety: The unique anxiety approach has shown more relevance in research. Studies following anxiety transfer approach resulted into conflicting results not only between studies but also within studies (MacIntyre, 1999). Early anxiety studies (Scovel, 1978; Young, 1991, 1994) show a negative relationship between anxiety and L2 performance (Bartz, 1974), a positive relationship between anxiety and L2 performance (Kleinmann, 1977), and no significant relationship between the two components. (Westcott, 1973). Some studies have reported results that are difficult to interpret.

Horwitz et al. (1986) proposed a theoretical model of foreign language anxiety combining anxiety transfer and unique anxiety approaches (MacIntyre, 1999). Horwitz et al. (1986) note similarities between second language L2 anxiety and foreign language anxiety FLA and propose performance anxieties that model the foreign language anxiety, which are visualized in table 4.

Table 4. Conceptualization of Foreign Language Anxiety components (Horwitz et al., 1986)

Performance anxieties	**Explanation**	
(1) Communication apprehension	Type of shyness or fear associated with communicating with people (McCroskey, 1970)	Not understanding or misinterpreting L2 messages 'receiver anxiety' (Wheeless, 1975) Oral communication anxiety Publication communication anxiety 'stage fright'
(2) Text anxiety	Concern about the consequences of underperformance in assessment situations (Sarason, 1978)	Worry over frequent testing, especially during acquisition
(3) Fear of negative evaluation	Avoiding assessment, and expecting harsh evaluation from others (Watson & Friend, 1969)	Personal evaluation based on L2 performance and competence Academic evaluation

These constructs of Horwitz et al. (1986) as conceptualization of L2-related anxiety, do not view FLA simply as a transfer of these anxieties to language learning. Horwitz and colleagues (1986) define FLA as a complex of self-perceptions, beliefs, feelings, and behaviors in language classroom derived from the learning process.

Low language proficiency can create a sense of inadequacy, not only in terms of academic achievement, but also in terms of self-expression (Schlenker & Leary, 1985). Language learners are aware of the limitations of language and may experience a sense of contradiction between their Actual Self and the more limited Self that can be represented in the L2, which Horwitz et al. believe distinguishes FLA from other academic anxieties.

There is a connection between self-expression and self-image through language and throughout the psychological experience shared by many language learners, individuals act and think differently (Guiora & Acton, 1979; Guiora, 1972). Guiora (1972) claims that individuals acquire

new identities when learning a new language, which can lead to existential anxiety in learners (Rardin in Young, 1992). Another theory describes second language acquisition SLA as a conflict of consciousness that seems to be associated with similar psychological experiences (Clarke, 1976). All these theories reflect the view that learning a foreign language FL is a unique learning experience and emphasize important psychological phenomena associated with understanding the anxieties rooted in that experience. (Stevick, 1976; Gardner, 1985; Williams, 1994; MacIntyre, 2002).

Communicative anxiety CA and foreign language anxiety FLA: Many studies on communicative anxiety CA and foreign language anxiety FLA have examined them as stable personality traits of experienced language learners (MacIntyre & Gardner, 1991), which should not exclude novices. More recently, the FLA construct has been evaluated in a sample of participants learning two foreign languages simultaneously (Rodriguez & Abreu, 2003), as highlighted by Dewaele (2002) in comparison with single language studies. MacIntyre and Gardner (1989) applied different measures of anxiety in the component analysis, which they termed general anxiety and communicative anxiety, and differentiated them by trait, state, class, test, usage-based anxiety, and audience susceptibility. It turns out that general anxiety has negligible effect on the dependent variable L2. Negative correlations were observed between oral and written proficiency and class and usage anxiety (MacIntyre & Gardner, 1989), suggesting that CA and FLA are the cause of performance impairment.

Interestingly, FLA is found in advanced learners (Onwuegbuzie et al., 1999; Saito & Samimy, 1996), as experienced learners also seem to suffer from FLA (Bailey, Onwuegbuzie & Daley, 2000). However, experience in the target language country seems to increase self-confidence and reduces anxiety about foreign language learning (Matsuda & Gobel, 2004).

Gardner and MacIntyre (1993) suggest that there is a reciprocal pathway between language anxiety and motivation. Prominent levels of motivation suppress anxiety, and elevated levels of anxiety reduce motivation. Gregersen and Horwitz (2002) found that learners with higher levels of anxiety set higher standards, even though they were procrastinating. FLA levels can fluctuate within a few minutes, but also over time as a person learns a language intensively and gains in confidence and self-esteem. In summary, CA and FLA seem to be an overly complex constellation of interacting variables. This supports MacIntyre's (1995) contention that CA / FLA is

simultaneously influenced by other variables such as aptitude and performance that affect anxiety levels and vice versa.

2.4. Gardner's motivation theory taxonomy

Gardner's theory of motivation is examined in three principal areas: second language acquisition theory, integrative motivational conceptualization, and the test battery used to measure various motivational factors. Gardner's second language acquisition theory provides an overview of how motivation is related to other IDs variables and language performance (Gardner, 2001). This model assumes that language performance is influenced by integrative motivation, attitudes, and other traits. The integrative motivation model is further described in table 5.

Table 5. Integrative motivation according to Gadner's model (2001)

Integrative motivation	
Integrativeness	Integrative orientation
	Interest in foreign languages
	Attitudes toward the L2 community
	(Gardner & MacIntyre, 1993)
Attitudes toward the learning situation	Attitudes toward the language teacher
	Attitudes toward the L2 course
Motivation	Effort
	Desire
	Attitude toward learning

Gardner's theory has been highly praised by L2 researchers. Gardner (2000, 2001) has recently addressed the question of how to conceptualize instrumental motivation within the overall theoretical framework. Gardner suggests that the motivational subcomponent of integrative motivation can be combined with means to form instrumental motivation. This is consistent with the view that the motivational subcomponent is central to learning goal. However, integrative motivation in Gardner's model has also been linked to the attitude toward learning situations.

The Attitude/Motivation Test Battery (AMTB, Gardner, 1985) is a multifactorial questionnaire with over 130 items that has been shown to have excellent psychometric properties, such as constructs and predictive validity (Gardner & MacIntyre, 1993). It makes all the major components

of Gardner's theory of integrated motivation functional, including the additional components of language anxiety, L2 class anxiety, and L2 use anxiety. Gardner's theory was a prominent motivational model in the L2 region and AMTB. Gardner's model was also important for the widespread use of test batteries to measure attitude and motivation (Jacques, 2001). The AMTB is a practical self-report instrument that fits many learning contexts around the world. Its design follows the psychometric principles of questionnaire theory and is a scientific assessment instrument in both its presentation and content.

2.5. Gardner's motivation taxonomy criticism

In AMTB, items are displayed in a random order, rather than grouped on a scale, which focuses on individual items and the assumption that students would express feelings and experiences with each item. For English as a foreign language item, AMTB is designed on a 7-point Likert scale to compare the mean and standard deviation of each scale, assuming a general aspect for a given sample.

Gardner listed elements that relate to motivation and behavior. However, the behaviors are related to the outcomes of motivation. The 'motivational intensity' item in the table tends to ask individuals to report on the effort they made in their homework. In other studies, such items are usually considered behavioral standards, and researchers calculate the correlation between them and student motivation (Dörnyei & Clément, 2001). Thus, the AMTB evaluates both motivation and motivated behavior. This increases the predictive validity of the instrument in terms of learning outcomes. Dörnyei (1994) describes the three subscales that define the motivation subcomponent, as summarized in table 6.

Table 6. Dörnyei's subscales of the „Motivation" subcomponent (1994)

Motivation	
Subscales	Characteristics
Desire to learn the second language L2 Motivational intensity Attitudes toward learning the L2	• Overlap at the item level • high intercorrelations between scales

2.6. Motivational self-regulation

When motivation is viewed as a dynamic and ever-changing outcome of numerous internal and external forces, the internal monitoring, filtering, and processing mechanisms that learners employ in this dynamic process play a key role in shaping it. Psychology emphasizes the importance of learner self-regulation. It integrates the learner's active participation in controlling various aspects of the learner's learning into a broad and consistent framework. A crucial point from our current perspective is that self-regulation should include motivational self-regulation in addition to cognitive and metacognitive elements. Heckhausen and Kuhl's Action Control theory of the self-regulatory process of motivation (Heckhausen, 1991; Heckhausen & Kuhl, 1985; Kuhl & Beckmann, 1994) was the basis for Dörnyei and Ottó's motivation process model. Pintrich (1999) focused on the individual's own motivations, emotions, behaviors, and environment. This was a welcome addition to the study of self-regulation in line with the views of Corno (2000). That is, maintenance of motivation and controlled performance are important in education.

The basic assumptions underlying the motivational concept of self-regulation are that students who can stay motivated and focused on their tasks despite competing demands and efforts learn better than those who have less control over their motivational regulation. As Wolters (2003) points out, learning is a tedious process that can disrupt a student's initial motivation. Therefore, their ability to maintain control over their attitude/motivational tendencies should be considered a key factor in self-directed learning and achievement. In addition to this consideration, Ushioda (2003) stated that another function of motivational self-adjustment is to enable learners to abandon certain maladaptive motivational belief systems and thus think constructively and effectively.

Wolters (1999) proved the role of motivational self-regulation. He claims that the effective application of five motivational regulation strategies can explain differences in student effort and achievement. Edmondson (2004) presented six types of motivational syndromes and scenarios in which learners deal with motivational issue, defining a motivational conflict as a situation in which the learner's internal motives conflict with external motivational conditions such as lack of social recognition and success. A person's learning characteristics are parts of the individual difference ID variable that is part of a person's motivational profile.

2.7. L2 Motivational Self-System (L2MSS)

The L2 Motivational self-system (Dörnyei, 2005, 2009) has been dominating the L2 motivation research (Apple et al., 2013; Dörnyei & Ushioda, 2009; Murray et al., 2011). This system consists of ideal L2 self, the ought-to L2 self, and the L2 learning experience, offering a revision of the integrative and instrumental motivation that was advanced by Gardner and Lambert (1972). The ideal L2 self plays a key role in learners' motivation and behavior in different learning contexts (Csizér & Kormos, 2009; Ryan, 2009; Taguchi et al., 2009). The L2 Motivational Self System (Dörnyei, 2005; Dörnyei & Ushioda, 2011) posits that students' motivated learning behaviors are largely influenced by (a) ideal L2 self, how competent students envision themselves in the foreign language in question, (b) their ought-to L2 self, which encompasses the external pressures students perceive during the learning process, and (c) the language learning experience, including attitudes toward classroom environment (Dörnyei, 2005, 2009; Dörnyei & Ushioda, 2011).

The ideal L2 self-perspective is related to two important recent conceptualizations of L2 motivation by Noels (2003) and Ushioda (2001). The different models seem to meet in a broad range of patterns across the three main dimensions of L2 motivation. Comparing this pattern with Gardner's original theoretical model, significant similarities can also be found: the motivational L2 self-system as a new motivational construct. Noels (2003) proposed a larger motivational structure consisting of three interrelated types of orientation: (a) intrinsic reasons in the learning process, (b) extrinsic reasons, and (c) integrative reasons. Ushioda (2001) used a qualitative method rather than a quantitative method to identify more complex configurations, but they are conceptually related to what Noels offers. Their results show eight aspects of motivation and can be divided into three broad clusters that closely match. Table 7 includes a summary of these motivational clusters.

Table 7. Motivation clusters proposed by Noels (2003) and Ushioda (2001)

	First cluster	**Second cluster**	**Third cluster**
Actual learning process	Language related gratification	External incentive	Personal goals A desirable level of L2 ability
	Positive learning history		Academic interests

Personal satisfaction	Feelings toward the target language

Dörnyei proposed the second language L2 Motivational Self-system, a comprehensive composition of L2 motivation. *Ideal L2 Self*, which is according to the third cluster formed from the motivational aspect of Ushioda's (2001) on the motivation to learn L2 and the desire to connect the actual self with the ideal self. *Ought-to L2 Self*, refers to the attributes that Noels (2003) and Ushioda (2001) consider as various obligations or responsibilities in response to the 'extrinsic' component of the motivational cluster. *L2 Learning Experience*, which concerns context-specific motivations related to the immediate learning environment and experience, which corresponds to Noel's (2003) intrinsic categories and Ushioda's (2001) motivational facets.

Ushioda (2001) summarized all factors in the motivational composition of language learners that can be categorized as causal relationships arising from a series of L2 learning and previous L2 experiences, or as short or long-term teleology. This summary fits well with the proposed configuration because the L2 ideal self, which is teleological concerning future motivation, and the L2 learning experience component are causal aspects. Gardner's motivational subcomponents are strongly related to motivational behavioral measures and the recently proposed instrumental motivational links with motivational subcomponents and the proposed system of the L2 motivational self-system. The L2 motivational self-system echoes some of the most influential ideas in L2 motivation research. The L2 learning experience aspect refers to the execution motivation associated with the behavioral phases of the motivated behavior. Ought to L2 self engages in reasoning before behavioral phase. It is necessary to specify how relevant the component is in the context of the motivational process in the behavioral phases of the motivational process. Ushioda (2001) suggested that motivational changes bring about achieving L2-related and goal-directed motivation. Within the self-framework, this corresponds to ideal L2 self-refinement and the ought to L2 self-internalization. Norton (2001) emphasized that Wengers (1998) suggests three forms of community membership: engagement, imagination, and alignment. Through the conceptualization of Imagination and Alignment, it becomes clear how an ideal self-image is achieved in each situation. The concept of 'investment' is particularly noteworthy in this context because it captures the active developmental process of learners in the featured community (Pittaway, 2004). It is helpful to take a closer look at Wenger's (1998) concept of alignment. This

reflects the adjustments, adaptations, and activities to fit into the broader structure. Therefore, alignment is associated with motivated behavior, where participants align their behaviors and practices.

Conceptualizing L2 motivation from the self-perspective enhances student motivation by improving the details of the student's self-referential reflection. Markus and colleagues (Markus & Nurosis, 1986; Markus & Ruvolo, 1989; Ruvolo & Markus, 1992; Oyserman & Markus, 1990), defined a set of conditions that can enhance motivation. The possible self needs to exist, to be primed, to associated with relevant procedural knowledge, and to be set by a countervailing possible self in the same domain. First, the motivation intensity that arises from the desire to reduce the discrepancy between the actual L2 self and the ideal L2 self depends strongly on the learner's self-visualization of success. Second, self-representation of content area and self-concept of work vary from person to person (Ruvolo & Markus, 1992). For a particular self-representation, such as the ideal L2 self, to be active, it must be triggered or consciously initiated by an associated event. Third, the desired end state affects behavior only if the individual can personalize it by building a self-presenting visual between the initial self and the desired self.

In other words, the more sophisticated one can be in terms of concrete and relevant action plans, the more effectively a purposeful behavior can happen. The Ideal self is most effective when associated with an expression of what may happen if the desired state is not achieved. These guidelines set out the development of a particular pedagogical technique. Recent research by Oyserman et al (2002) concludes that it is possible to design detailed and academically focused interventions that promote learners' potential self-development. For L2 learning, some motivational strategies identified in the literature (Dörnyei, 2001) can be integrated into the self-framework. Encouraging motivational classroom practice from a self-point of view, the importance of the explicit role of the teacher or the more indirect role of a group of peers certainly has an impact on learner motivation. (Dörnyei, 2001; Dörnyei & Murphey, 2003; Ushioda, 2003).

2.8. The dynamics of the L2 Motivational Self-system

The introduction of complex dynamic systems theory has been beneficial to the study of L2 motivation (Dörnyei, 2009, 2014; Dörnyei & Ushioda, 2011; MacIntyre & Legatto, 2011). Unpredictability is one of the central problems in the study of complex dynamic systems (Dörnyei, 2014; Lemke & Sabelli, 2008). The general system behavior may follow the expected direction, but fluctuations in system behavior and multiple interferences among system components can lead

to unexpected patterns and uncertain future outcomes (Larsen Freeman & Cameron, 2008). To overcome the research limitations, Dörnyei (2014) elaborated on methods that could enable systematic research on motivational dynamics; (a) focus on attractor-regulating occurrences in the system, (b) focus on a broad range of effects on the collection of system components in the system's attractor state, (C) retrospective analysis of typical result patterns.

Dörnyei (2010) proposed to focus on the self. The self consists of interconnected, interacting, and unpredictable cognitions and motives that depend on context and initial conditions and are characterized by nonlinear development and self-organization. Dörnyei (2005, 2009), emphasized in his discussion of the L2 motivation system model, that the possible L2 selves is phenomenologically constructed. The ability to construct and maintain a potential self can change as an individual finds himself in different situations. This can occur over both shorter and longer periods of time, depending on both situational conditions and the learner's developing thinking. The ideal L2 self is subtly reformulated each time it is activated, as the potential self-responds to situations that convey new or inconsistent information about the self (Markus & Nurius, 1986). For example, changes may be triggered by comparison with others who share a particular characteristic of a person's ideal self, creating opportunities for the future to become more elaborate and concrete (Lockwood & Kunda, 1997).

The ideal L2 self may also be influenced by exposure to instructional material and experience of the target language (Dörnyei & Chan, 2013). The aspects of self-guide, availability, and accessibility are highly dependent on factors such as the activity being performed and the individual's state of mind at a given time. Their own ability to generate self-regulated behavior is dynamic and varies in the timeline (Norman & Aron, 2003). When an individual is aware of the gap between the real self and the ideal self, the possible self may also change. The expectations of the desirable self-change when self-related situations change (Carroll et al., 2009; Carroll et al., 2006). Reassessing the likelihood of achieving the desired future self is facilitated by implicit and/or explicit feedback on noteworthy events, experiences, and the target language development. As people feel they are getting closer to the desired end state of a particular ideal self, the former acts as a motivator (Ogilvie, 1987).

The L2 Motivational Self System may seem relatively fixed and static which is not compatible with dynamic systems, as many discussions tend to reduce the ideal self to a static construct (Henry,

2015). Henry (2015) and You and Chan (2015) questioned self-guides viewed as static goals, and argued that structures are influenced by dynamic processes:

(a) the changing rework of the ideal and ought-to self.

(b) the interaction with other self-concepts.

(c) qualitative and quantitative changes in the possible L2 self.

Dörnyei (2009) suggested that the ideal and ought-to L2 selves can be viewed as attractor states in L2 motivation dynamic systems, which was discussed and confirmed by Dörnyei, MacIntyre, and Henry (2015). The complexity of self-guides in the L2MSS is characterized by change over time and the dynamic interaction between the actual self-concept and the ideal L2 self (Dörnyei & Ryan, 2015).

2.9. Criticism of the L2MSS Model

There are conceptual and measurement issues related to the L2MSS model. Regarding the conceptual issues, some self-referent components may be missing from the model. First, MacIntyre, Mackinnon, and Clément (2009) argue that the L2MSS model is missing most self-referent components and that it is narrowed to an ideal self and ought-to L2 self. Second, Taylor, Busse, Gagova, Marsden, and Roosken (2013) highlight the lack of conceptualization as it generates difficulty to examine self-related discrepancies. When the L2MSS model was proposed, the dichotomy of ’own’ and ’other’ self-constructs (Higgins, 1987) were not considered. Recently, Papi et al. (2018) highlighted importance for viewing regulatory patterns.

Regarding the measurement issues, Al-Hoorie (2018) summarized potential issues in the studies of L2MSS. Al-Hoorie argues that the intended effort is better measured through the actual effort and linguistic input rather than recorded through self-reported (Al-Hoorie, 2018; Nagle, 2018; Papi et al., 2018). Al-Hoorie also highlights operationalization validity issues in criterion scales.

Moreover, the prevailing studies focus on English education contexts ignoring the linguistic diversity. Csizér and Kálmán (2019) urge to revise the self-referential model and the L2 learning experience component to reconsider diverse measures in-class and outside the classroom.

2.10. Motivation dynamics

The complex dynamic system approach has a significant impact on understanding L2 and FL motivation.

Table 8. Motivation frameworks theories of Williams and Burden (1997) and Dörnyei and Otto (1998)

Williams and Burden (1997)	**Dörnyei and Otto (1998)**	
Reason for doing something	Pre-actional phase	Choice motivation that initiates activities
Deciding to do something	Actional phase	Executive motion that requires maintenance during activities
Persisting in doing something	Post-actional phase	Motivational retrospection

Given the above considerations in table 8, the dynamic system approach seems attractive if it can provide an explanation for both variability and stability, independent of causality. As mentioned earlier, accounting for changes in motivation over time, which is the first of the three main characteristics of dynamic systems, contributes to a better understanding of L2 motivation. This change occurs frequently in recent studies of L2 motivation. Pawlak (2012) and Poupore (2013) tracked the development of learning groups over multiple lessons and emphasized short-term motivational dynamics. Other studies have documented long-term trends in motivation development and have shown that motivation levels generally decline to some degree over the course of extensive institutional involvement (Chambers, 1999; Dörnyei, Csizér, & Németh, 2006; Gardner et al., 2004). These studies seem to suggest that motivation can fluctuate on different time scales, ranging from minutes to hours, days, months, and years.

The observed developmental fluctuations in student motivation may involve stable periods or predictable patterns (MacIntyre & Legatto, 2011) during interaction (de Bot, 2012). The best-known theory of motivation in this regard is Ushioda's (2009) Person-in-Context Relational View of Motivation which emphasizes the agency and motivations of second language learners who are understood as individuals in a particular cultural and historical context. Identity is formed and shaped by these contexts. Moreover, the dynamic relationship between the learner and the context stabilizes the state of motivation in the face of discouraging contextual factors when the learner develops a clear vision as an L2 speaker. It has also been confirmed by discovery that this is possible through a deliberate self-motivation strategy (Dörnyei, MacIntyre & Henry, 2014).

The discipline of group dynamics specializes in the knowledge of how people behave in various small groups. Motivational dynamics has been identified within the L2 field, which observes

classrooms and strategies from a particular perspective (Dörnyei, 1997; Dörnyei & Malderez, 1997, 1999; Dörnyei & Murphey, 2003; Ehrman & Dörnyei, 1998; Senior, 1997, 2002; Ushioda, 2003). The motivation of novice learners is drastically affected by the diverse groups to which they belong. Ushioda (2003) concluded that the social aspect of the classroom certainly helps to enhance and promote student motivation. The motivational effect of the social context includes many components, especially guidelines by the faculty and advanced practices due to copying certain behaviors of some influential members (Dörnyei, 2001).

2.11. L2 Motivation and SLA research

Motivation is a state that includes a subjective, not necessarily conscious, sense of desire for self or in the environment and a particular disposition to act in a way that influences this change (Baumeister, 2016). L2 motivation research is developing independently of motivational psychology, particularly in understanding why people desire to learn another language (Dörnyei & Ushioda, 2011).

In the contextual conceptualization of motivation, there were often considerable variation in learners' motivational tendencies, which led to attempts to reform the concept in a process-oriented way (Dörnyei, 2000; Dörnyei & Ottó, 1998). However, the process models based on cause and effect did not provide a realistic representation of the motivational phenomena observed in real situations. The linear progression in the motivation diagrams was not reflected in the random iterative process that many learners described. Dörnyei and Ushioda (2011) argued for the theoretical validity of the dynamic approach and extended this discussion to include possible selves and Dörnyei's (2005, 2009) L2 motivational self-systems/guides that are inherently dynamic.

Given the practical and pedagogical implications of studies of motivation in language learning, future assessments will place motivational studies within a broader scope of SLA. The study of motivation for language learning is arguably one of the most advanced areas of SLA research. The main questions that motivation researchers traditionally propose revolve around motivational characteristics, types of motivational tendencies that affect L2 learning performance, and L2 acquisition. Thus, SLA researchers focus on the language development process of learners who are already engaged in L2 learning. Edmondson (2004) hypothesized that motivational function is the minimum motivational profile required for acquisition. Recently, however, the prospects for L2 motivation research and true integration into the mainstream research have improved significantly. L2 motivation studies must meet definitive criteria for integration. This means that the focus on

the behavior of a particular language learner, rather than general learning outcomes, is a measure of the criteria. It is advisable to keep in mind how different motivational features affect a particular learner's learning behavior during the course. The feasibility of such an approach was demonstrated by a fascinating study by Markee (2001), who related conversation analysis in interlinguistic discourse to the underlying motivational problem.

Arguments for Lambert and Gardner's (1985) sociopsychological perspective on motivation: Motivation is more of an emotional rather than a cognitive factor and more adaptive than learning styles. A slightly less variability in language learning accounted for than linguistic aptitude, which is due to individual differences factor. Teachers and researchers emphasize the importance of motivation, both in terms of extrinsic and intrinsic motivation of students in the language classroom. Researchers are also paying increased attention to motivation, which is reflected in the increase of theoretical models of L2 motivation. The study of motivation in language learning began with Lambert and Gardner's study of the social psychological aspects of language learning in a bilingual context. This perspective on motivation is explained in table 9.

Table 9. Lambert & Gardner's (1985) sociopsychological perspective on motivation

Sociopsychological aspects	Refers to	Types and explanations
Orientation	Long-term goals	Integrative orientation
		Instrumental orientation
Motivation	Motivational intensity	Persistence in learning

Learners may exhibit a particular language goal orientation, but their motivation varies. Lambert and Gardner (1985) suggested that integrated motivation is strongly correlated with L2 achievement, although other studies showed the importance of classroom motivation. Gardner acknowledges that both aspects of motivation are important and can coexist. However, there is a general view that orientation cannot be narrowly defined as 'integrative' or 'instrumental'. Furthermore, it is highly likely that the learner's orientation will change over time. Other studies have shown that some learners appear confused at the beginning of a compulsory course but may develop an orientation over time.

Counterarguments to Lambert and Gardner's (1985) sociopsychological perspective on motivation: This social psychological perspective of motivation by Lambert and Gardner (1985) has been questioned for several reasons. The resulting motivation dimension was not recognized. Gardner attributed motivation to L2 performance, but many studies have shown that for some learners, motivation is spurred by learning success. Motivation is dynamic and presented as too static in Lambert and Gardner's perspective, discarding the fact that it is constantly changing based on the learner's learning experience and a myriad of personal factors. Given that this perspective did not consider the development of intrinsic interest in the learning process, it was not considered to have any pedagogical significance (Crookes & Schmidt, 1991).

Dörnyei's perspective on motivation theories: Dörnyei (2001) identifies several modern motivational theories that can be associated with L2 learning and points out the missing aspects. In outlining this multitude of theories, Dörnyei points out that the classroom is such a complex place that a single motivational principle cannot explain what happens in the classroom.

Considering recent developments in L2 motivation theory, Dörnyei (2001) proposed a model that recognizes the dynamic and multidimensional properties of motivation. His process model of motivation learned in L2 instruction distinguishes the 'Pre-Action Stage', which is closely related to the concept of orientation, 'action stage', which is related to the learner's willingness to invest in

goal achieving and learning experience, and 'post-behavioral phase', which is attributed to the willingness to continue. Such models can explain changes in motivation over time and are far superior to the static models of motivation, while highlighting the differences between extrinsic and intrinsic motivation. This difference can be seen in table 10.

Table 10. Noels' et al. (2000) conceptualization of extrinsic and intrinsic motivated behaviors

Motivated behaviors	**Types**	**Explanations**
Extrinsic	External regulation	Benefits and external sources of motivation
	Introjected regulation	Behavior resulting from pressure incorporated into the self
	Identified regulation	Behavior inherited from personal reasons
Intrinsic	Knowledge	Exploring innovative ideas
	Accomplishment	The joy of achieving goals
	Stimulation	The excitement of performing tasks
Amotivation	Absence of motivation	Negatively correlates with perceived competence and intention to learn

Intrinsic motivation measures were more strongly correlated with baseline measures than extrinsic motivation measures. Noel et al. argue from the standpoint of self-determination theory that the more self-determined the learner, the better the performance. Noel et al. (2000) support the general claim that intrinsic motivation is a major contributor to L2 learning. Students' motivation can consciously increase if creative techniques were considered (Dörnyei, 2001). These strategies are detailed in table 11.

Table 11. Dörnyei's (2001) strategies for language classroom

Language classroom strategies	Explanations
Developing basic motivational conditions	Supportive classroom atmosphere
Generating initial motivation	Success expectancy
Maintaining and protecting motivation	Enjoyable and stimulating learning
Encouraging positive self-evaluation	Motivational rewards

2.12. Motivation constructs

In recent decades, studies have been conducted on motivation in second language learning SLL, as motivation is considered one of the most important ID variables for success in second language learning. L2 motivation is a complex entity. Therefore, some researchers have used slightly different definitions to describe students' motivated behaviors, choices, efforts, and persistence in learning a second language (Dörnyei & Ushioda, 2011).

Motivation constructs according to Gardner: Gardner and his colleagues examined the social psychological aspects of L2 motivation to determine how attitudes toward language affect student motivation. The most important contribution in this area is the conceptualization of the notion of integrativeness. This describes the extent to which students intend to integrate into the L2 community (Gardner, 2006, 2012; Masgoret & Gardner, 2003).

Motivation constructs according to Dörnyei: Dörnyei and his colleagues are known to associate L2 motivation with a self-centered study of psychology. Motivation studies are shaped by how students view their current and future selves and the relationships between them. Some research has looked at the ideal L2 self, the student's most important self, to see how visualizing the self can contribute to the student's learning behavior (Dörnyei & Ushioda, 2009).

Motivation constructs according to other studies: L2 motivation is increasingly recognized as a dynamically changing concept that fluctuates during the learning process (Ushioda, 2011). As a result, an increasing number of longitudinal studies are investigating how and why motivational change occurs (Dörnyei & Ushioda, 2011).

The common motivation constructs: Despite the differences in both the research methods used and the conceptualization of the various motivational configurations, the common view among these studies is to treat motivations as dependent constructs characterized by multiple guiding variables. Few studies have examined how motivation affects learning and experience in general, particularly other ID variables.

2.13. Language learning motivation

Motivation to learn a language is one of the most intensively studied variables in SLA (Gardner, 2006; Dörnyei, 2005; Dörnyei & Ushioda, 2009; Lasagabaster & Huguet, 2006; Masgoret & Gardner, 2003; Noels, 2003; Ushioda, 2008). Motivation can be described as a complex, composite entity with more distinct components and state-like context-specific components (Dörnyei, 2006). Motivation is said to explain why people choose to behave in a particular way and how intensely they are willing to engage in a task (Dörnyei and Skehan, 2003). According to Gardner (1985), the level of motivation in the target language is influenced and maintained by means and attitudes towards learning status and integration in the target language TL group (Gardner, 2006). Studies have shown that there is a strong correlation between the degree of integrativeness and SLA success, and a weaker correlation between the degree of instrumentality and foreign language success (Dörnyei, 2001; Gardner, 2006). Dörnyei (2005) suggested focusing on aspect identification and learner self-concept rather than intergrativeness. An individual envisions an 'ideal L2 self', an expression of all the desired traits in the L2, their 'ought-to L2 self', a belief of the required traits. Dörnyei (2006) then explained the learner's desire to bridge the gap between the actual L2 self and the ideal L2 self, and introduced the 'L2 learning experience', which is a context-specific motivation during the learning experience. Ushioda (2001), Shoaib and Dörnyei (2005) focused on motivational changes or 'emergent motives' over time (Ushioda, 2009). Ushioda (2001) stated that successful learners are likely to undergo a substantial motivational process, while less successful learners focus more on external incentives. Shoaib and Dörnyei (2005) noted a characteristic repetitive temporal pattern and several episodes that altered motivational tendencies.

2.14. Study Abroad and Learner Motivation

Studying abroad is still the most effective way to learn a language (Freed, 1995, 1998). This can motivate and authenticate learning. Ryan and Mercer (2011) note that students who have not been abroad report language use insecurity compared to those who have been abroad and acquired the

language in the target language setting. Experiences with language use abroad can be a significant part of an individual's L2 self-concept and influence learner competence (Barron, 2006; Segalowitz & Freed, 2004).

Studying abroad SA has always been regarded as an efficient context for language learning. Several studies investigated the SA effect on language development and attitudes towards the language and community. Recent studies emphasize the changes in attitudes and language learning motivation after SA programs. Verela (2017) found that SA may lead to positive cognitive and affective gains, which is one of the main focus of our study. Several studies have shown that SA increased interest in intercultural sensitivity (Anderson, Lawton, Rexeisen, & Hubbard, 2006; Yashima & Zenuk-Nishide, 2008), and positively influenced attitudes towards the target language and community and linguistic gains (Paris, Nyaupane, & Teye, 2014; Streitwieser & Light, 2018; Watson & Wolfel, 2015; Zaykovskaya, Rawal, & De Costa, 2017). Hanada (2019) and Nowlan (2020) also note that environment and study program play significant roles in intercultural competence. Several studies have also shown that the duration of stay abroad affects motivation and learners' intrinsic motivation. Consequently, learners' attitude towards the teacher and their visualization of their self efficacy may change (Amuzie & Winke, 2009; Martin, 2020; Sasaki, 2011).

During the SA program, language proficiency and study programs may influence motivational changes (Miura, 2010; Yang & Kim, 2011). Considering the length of stay, Martin (2020) and Nguyen and colleagues (2018) claim that shorter study programs may have little effect on motivation. Dörnyei and Ushioda (2009) also note that students' views of themselves may develop greatly while studying abroad. Dörnyei and Ushioda (2009) highlight the causal relationship between the learning experience and motivation. In this regard, changes in self-image (Ideal L2 self and Ought-to L2 self) also affected willingness to community and attitudes toward the community.

2.15. Variability and Variation of group dynamics in language learning

What can individual variation tell us about group variability? Hulstijn's (2015) study, among several research studies, investigated individual variation over time and the language learning factors. Hulstijn and Molenaar and colleagues (Molenaar, 2015; Molenaar & Campbell, 2009) conclude that individual variation is not similar to group variation. Molenaar and Campbell (2009) argued that the generalization of an individual-based analysis is only possible if the population is

homogeneous and if the data is stable over time. Molenaar, Sinclair, Rovine, Ram, and Corneal (2009) claimed that developmental studies violate those stationary and ergodic conditions. In this sense, interindividual variation cannot be equated with intraindividual variability. Language learning is viewed as a holistic process of internal and external factors' dynamic interaction. The study of individual development is consistent with the CDST approach (de Bot et al., 2007; Larsen-Freeman & Cameron, 2008). In this framework, variability is a prerequisite for development. This development is often individually shaped (Lowie, Van Dijk, Chan, & Verspoor, 2017) because factors' interaction is different for each individual. Although general patterns are observable in group means, individual variation is not as stable (Lowie & Verspoor, 2015). However, the generalization is possible based on similar individual characteristics (Molenaar & Campbell, 2009) which could be ergodic. In this direction, group studies may highlight the individual factors' contribution in language learning.

2.16. Summary of relevant literature

There are myriad variables that may influence language learning. Motivation, anxiety, and attitude are usually considered in language learning studies. The ideal study design would include all conceivable factors in a single model, but it is hardly practical. Most instruments either focus on the cognitive or the affective definitions of these factors. Different operationalization has a significant impact on the measurement of these factors. While the AMTB (Gardner, 1985) distinguishes between integrative and instrumental orientations, the L2MSS (Dörnyei, 2005) redefines Integrativeness and highlights the learners' visualization of their possible selves. The recent emergence of motivational dynamics (Dörnyei, MacIntyre & Henry, 2014) challenges the assumption that some factors are expected to remain stable. Waninge, Dörnyei and de Bot (2014) have shown that motivation components are highly variable with wide variability across learners. Not only do the factors change over time, but also their interaction. The Ideal L2 self expresses Integrativeness, and the Ought-to L2 self expresses the perceived obligations. Jiang and DeWaele (2015), in this regard, studied the change of the Ideal L2 self and Ought-to L2 self over time. While considering the questionnaire for group measurement of these dynamic changes in the macro-study, we took into account multiple measurements in the longitudinal micro-study.

2.17. Research questions

Based on the literature review, we propose the following research question for the macro- and micro-studies:

1. What characterizes the interrelationship of motivation, anxiety, and attitudes throughout learning Hungarian in classroom?
2. To what extent can variability and stability be detected in students' in-class motivation context?
3. What characterizes the change in motivation levels on the individual-level and group-level?
4. What is the effect of context on change, variability, and stability?

2.18. Hypotheses

According to the empirical studies, we predict the Ideal self would correlate with linguistic self-confidence (Ushioda, 2001), which are also influenced by language experience and attitudes (Dörnyei, 2005; Dörnyei & Ushioda, 2011; Dörnyei & Chan, 2013). Based on MacIntyre and Serroul 's (2015) findings we also predict that language anxiety would negatively affect linguistic self-confidence and the Ideal self. The Ideal self-own emerged as a strong predictor for motivated behavior in Papi et al.'s (2018) findings which is also our hypothesis in this study. For the micro-study, we predict motivation variation on the individual level which are context-specific and are affected by other factors (e.g., Waninge et al., 2014). We also expect that the study abroad SA experience would help students cope with language anxiety (Allen & Herron, 2003). We also hope to clarify the relationship between the language learning factors and students background (gender, proficiency in Hungarian, university, study programs, duration of stay).

CHAPTER 3. METHODOLOGY

3.1. Research approach and design

This chapter is a discussion of the methodology and research design tailored to investigate the research questions. We proposed a mixed methods design and outlined the steps on a timeline to prepare for the pilot study:

- classroom observation
- exploratory study among the international students taking the Hungarian language course,
- qualitative exploratory questions,
- questionnaire design following the relevant theories guidelines,
- peer-review of the national-level questionnaire,
- the pilot study.

Given the validity in the selection of this questionnaire elements, we provided a justification for each item aimed at a particular factor. Different methods are appropriate to cover large variety of purposes. We decided on adopting multiple analysis approach to strengthen the discussion part.

L2 and FL researchers are encouraged to incorporate dynamic perspectives into their research to develop research questions, methodological design, and data collection tools that will inevitably arise as new research directions are pursued. The nondynamic method attempts to isolate independent variables such as language anxiety and control for as many factors and conditions as possible to generalize findings to other contexts. Due to the highly personalized response of language learners, one-time snapshots and broader generalization with little individual-level information are of particular concern when applied in L2 studies. The system is in motion and interacting, which means that variables in learners' systems are interacting.

Due to the complexity of classroom reality, we integrated quantitative and qualitative research strategies. The quantitative approach is concerned with anxiety, attitudes, and motivation and with describing the dynamic micro-study. Anderson and Poole (1994) pointed out that adding qualitative research is desirable to maximize the theoretical implication of research findings. Indeed, qualitative research may further clarify quantitative research (Anderson & Poole, 1994). Marshall and Rossman (1995) insist on the adoption of qualitative explanatory approach to justify occurrences, and along with quantitative paradigm, they offer meaning and completeness to the

data. Brannen (1992) emphasizes the demands of each method approach and the precise specification of certain aims covered by each method and the type of data expected.

We adopted a qualitative approach to fill a gap in the literature background to outline the language situation in Hungarian classrooms, paving descriptions for the quantitative questionnaire and focusing on a triangulated approach. The classroom observation is secondary to the main instrument in this quantitative approach to capture actual behavior and dynamic fluctuations, which are more likely affected by linguistic and extralinguistic variables. Patton (1990) advised about in person data collection as a strategy to gather out more data that were not anticipated.

The instrument designed for this purpose must collect relevant data and account for all interacting variables. The researchers had an extensive reading of theoretical framework then selected specific constructs for the literature review.

3.2. Macro-study

3.2.1 Participants and their sampling description and criteria for the macro-study

This study is aimed at young adult learners enrolled in Hungarian language courses, programs at Hungarian universities. They form a variety of L1 backgrounds and cultures, a range of age from 18 to 30+ years old, different length of stay and different study majors. The majority are reportedly multilinguals who had studied English as their L2/L3. The classification of this sampling is based on student financial status, whether learners were self-supporting or scholarship holders. They take their Hungarian lessons at a beginner level twice a week, as their universities offer textbooks and a language teacher. They all studied the same textbook 'MagyarOK' for relatively the same number of weekly sessions during an academic year to achieve A1 proficiency. Our participants share common characteristics, as they are all studying abroad and taking Hungarian course.

Two-hundred eighty (280) international university students (124 males and 156 females) enrolled in Hungarian courses at 21 Hungarian universities and from a wide variety of disciplines offered by their host institutes including BA degree students (30.8%), MA degree students (23.8%), One tier students (7%), PhD degree students (24.5%) and others (14%). Their age ranged from 18 to 57 (M= 25.56, SD= 6.65). The participants were from different nationalities, almost worldwide. Their student status ranges from Stipendium Hungaricum scholarship holders enrolled in an English program (SH) (76.2%), SH scholarship holders enrolled in a Hungarian program (3.5%), self-financed students (16.4%), and others (3.8%). Their duration of stay in Hungary goes from 2

months to 10 years. On a five-point scale ranging from beginner to upper-intermediate and over (see Table 12) based on Common European Framework of Reference for Languages CEFR levels, most of the participants (63.3%) reported their Hungarian proficiency to be at the beginner level, (24.5%) reported post-beginner level, (10.5%) reported lower intermediate level, and equally (3.8%) for intermediate level and upper intermediate level.

Table 12. Hungarian proficiency description (CEFR)

Proficiency	Description
Upper Intermediate level and over	Able to converse about general matters of daily life and topics of one's specialty and grasp the gist of lectures and broadcasts. Able to read high-level materials such as newspapers and write about personal ideas.
Intermediate level	Able to converse about general matters of daily life. Able to read general materials related to daily life and write simple passages.
Lower Intermediate level	Able to converse about familiar daily topics. Able to read materials about familiar everyday topics and write simple letters.
Post-Beginner level	Able to hold a simple conversation such as greeting and introduction someone. Able to read simple materials and write a simple passage in elementary Hungary.
Beginner level	Able to give simple greetings using set words and phrases. Able to read simple sentences, grasp the gist of short passages, and to write a simple sentence in basic Hungarian.

They were also asked to report on their exposure to predefined contexts in Hungary on a scale from Never to Always (see Table 13), on which they reported their exposure frequency for each situation as the contexts are shown in Table 14.

Table 13. Context exposure scale

Exposure scale frequency				
1 – Never	2 – Rarely	3 – Sometimes	4 – Frequently	5 – Always

Table 14. Exposure to contexts in Hungary

Contexts				
Interacting with friends	Interacting with my Hungarian teacher(s)	Watching movies/videos	Reading	Shopping

3.2.2 The questionnaire

3.2.2.1. Exploratory research

To understand the learning experience before designing the questionnaire, we asked two open questions about students learning motivation and challenges that they face when learning Hungarian and sent out the link of the Google form to a list of 71 international students, courtesy of their language teacher. The first email entailed an introduction of the researchers, purpose of the email, reassurance of the confidentiality and anonymity of their answers, and a request to take a couple of minutes to answer some questions.

The recorded answers were grouped according to motivational theories and anxiety triggers and behaviors; Integrative motion (Gardner, 2001), motivation clusters (Noels, 2003; Ushioda, 2001), sociopsychological motivation perspective (Lambert & Gardner, 1985), extrinsic and intrinsic motivated behaviors (Noels et al., 2000), euphoric and dysphoric tensions (Spielman & Radnofsky, 2001), anxiety transfer and unique anxiety (Horwtiz & Young, 1991; MacIntyre, 1999). Along with the longitudinal exploratory aspect of the survey, we were able to categorize their answers and quantify them based on the theories. In IBM SPSS Statistics 22.0, we attributed a nominal to each element to record perception for different answers, which are in the answers but are completely unrelated. The frequencies analysis entertains the idea that no matter how different individuals can be, their answers are distributed into those categories. Through this process at one of the consultations, we uncovered factors underlying learners' attitude, anxiety, and motivation.

Based on motivational constructs according to Noels et al. (2000), Noels (2003) and Ushioda (2001), Dörnyei (1994), Gardner (2001) and Lambert and Gardner (1985), we compiled construct representations from the 24 answers we recorded in the exploratory study. Their answers were then attributed to a construct from the literature review and ran through descriptive analysis to generate motivational constructs representations. We also sorted their answers into anxiety triggers by Spielman and Radnofksy (2001), and types of anxiety by Horwitz and Young (1991) and MacIntyre (1999).

Given the variety of attributed constructs to each answer, it would be questionable to apply a single construct independently. Each answer is attributed to a construct in each of the motivational constructs. For instance, the answer "My ability to speak with Hungarians" can be attributed to these series of constructs; intrinsic, personal goals and academic interest, desire to learn, integrativeness, and orientation. Therefore, we opted for the use of multiple constructs, motivation theories and language anxiety theories.

3.2.2.2. Pilot study: the questionnaire

Questionnaires are recommended in second language L2 learning and foreign language FL learning research to collect data on complex phenomena (Seliger & Shohamy, 1989). In previous empirical studies, questionnaires revealed the extent to which they provide an understanding of correlating factors and their influence on language development. The questionnaire used was measured by means of the Likert scale, was largely based on the exploratory study, and connected to the combined grouped item pool of motivation (Dörnyei, 2010), the Attitude/Motivation Test Battery (AMTB, Gardner, 1985), the 2X2 Model of L2 Self-Guides (Papi et al., 2018), and developed based on various reviews. Lamb (2009) noted that the development of the ideal and ought-to L2 self is influenced by the students' social background. Noels (2009) argued that self-determination is important in shaping the L2MSS components. Csizér and Galántai (2012) considered contextual variables to examine the influence of the teacher/community on the three components of the L2MSS. The pilot study is necessary to validate our questionnaire, following Dörnyei's and Csizér's (2012) guidelines for questionnaire design. We categorized each item group and looked at the Cronbach's alpha, in comparison with a cutoff point, to eliminate any item with low internal consistency coefficient.

The questionnaire consists of six groups and included items related to nine motivational factors (Own Ideal L2 Self, Other Ideal L2 Self, Own Ought-to L2 Self, Other Ought-to L2 Self, Linguistic

self-confidence, Attitudes toward L2 community, Language anxiety, Motivated behavior, Attitudes towards the learning situation; teacher and L2/FL course), with insistence on two types of L2 Self perspectives (own and other) (see Table 16), and few subsequent questions on the learner's background, their exposure frequency to predefined contexts in Hungary, and a comment section, which conclude the first and second part of the survey.

The questionnaire's scale was based on the Likert scale, from 1 being 'Strongly disagree', to 6 being 'Strongly agree' as represented in table 15.

Table 15. Likert scale representation

Scales	**Connotations**
1	Strongly disagree
2	Disagree
3	Slightly disagree
4	Slightly agree
5	Agree
6	Strongly agree

The third part of the questionnaire covers participants' background information including their gender, age, nationality, University, Major, education level, student status, Hungarian ability/skill/proficiency, duration of stay, and frequency of contact with Hungarian. The fourth parts cover exposure to contexts in Hungary on a different scale.

Table 16. Motivational scales of this study's questionnaire (for the pilot)

Motivational scales			Explanations
L2MSS (L2 motivational self-system)	Ideal L2 self	Own	representing the L2 attributes that the learner (own standpoint) would ideally hope (promotion focus) to possess in future.
		Other	representing the L2 attributes that the learner's significant others such as his or her family (other standpoint) would ideally hope (promotion focus) the learner will possess in future.
	Ought to L2 self	Own	representing the L2 attributes that the learner (own standpoint) believes he or she ought to possess (e.g., obligations, duties, and requirements) to avoid negative consequences (prevention focus).
		Other	representing the L2 attributes that the learner believes other people (other standpoint) expect him or her to possess (e.g., obligations, duties, and requirements). The learner foresees negative consequences in failure to meet those expectations (prevention focus).
Linguistic self-confidence			representing the belief of achieving a proficient level in the language if enough effort is made.
Attitudes toward L2 community			representing the attitudes toward Hungarians, their culture, and language.
Anxiety	Language anxiety		representing the language anxiety associated to learning Hungarian in classroom.
Motivated behavior			representing the learner's level of time, effort, and cognitive investment in the L2 learning pursuit.
Attitudes towards the learning situation	Language teacher		representing the student-teacher attitude and their experience with the language teacher
	L2 course		representing students' experience with the Hungarian course and language

The pre-pilot questionnaire after careful selection can be seen in Table 17.

Table 17. Questionnaire's categorization and question selection

Categories	Subcategories	Questions
L2MSS (L2 motivational self-system)	*Ideal L2 self*	OWN I can imagine a day when I speak Hungarian like a native speaker of Hungarian.
		OWN I can imagine a day when I write effectively and read fluently in Hungarian.
		OWN I can imagine a day when I speak Hungarian fluently with Hungarians.
		OTHER The people who are important to me hope that one day I will master the Hungarian language.
		OTHER It is my Hungarian teacher's hope that one day I will speak Hungarian fluently.
		OTHER My friends and teachers will be proud of me if one day I master Hungarian.
	Ought-to L2 self	OWN If I don't work on my Hungarian, I will not find a job in Hungary.
		OWN If I don't work on my Hungarian, I will risk losing my scholarship.
		OWN If I don't work on my Hungarian, I will fail in my social life in Hungary.
		OTHER I will lose my scholarship support if I fail to learn Hungarian.
		OTHER The community puts a lot of pressure on me to learn Hungarian.
		OTHER If I don't learn Hungarian, I will disappoint my teacher/Hungarian friends.
Linguistic self-confidence		If I make more effort, I am sure I will be able to master Hungarian.
		I am sure I have a good ability to learn Hungarian.
		I believe that I will be capable of reading and understanding most texts in Hungarian if I keep studying it.
		I am sure I will be able to write in Hungarian comfortably if I continue studying.
Attitudes toward L2 community		International students should make a greater effort to learn Hungarian.
		Hungarians are a very sociable, warm-hearted, and creative people.
		I would like to know more Hungarians.
		The more I get to know Hungarians, the more I want to be fluent in their language
		Hungarians are very friendly and hospitable.
Anxiety	Language anxiety	It embarrasses me to volunteer answers in our Hungarian class.
		I always feel that the other students speak Hungarian better than I do.
		I get nervous and confused when I am speaking in my Hungarian class.
		I am afraid the other students will laugh at me when I speak Hungarian.
		I never feel quite sure of myself when I am speaking in our Hungarian class.
Motivated behavior		I work hard at studying Hungarian.
		I spend a lot of time studying Hungarian.
		I put a lot of effort in studying Hungarian.
		Studying Hungarian is very important to me these days.
		I constantly think about my Hungarian learning activities.
Attitudes towards the learning situation	Language teacher	I think my Hungarian teacher enjoys teaching the Hungarian language.
		The Hungarian teacher pays attention to me and listens to make a better connection.
		The Hungarian teacher creates a good atmosphere in the class with their humor.
		The Hungarian teacher comes ready for class.
		The Hungarian teacher introduces Hungarian culture in class so I can get to know the world of native Hungarian speakers better.
	L2 course	The Hungarian language is really important.
		The Hungarian language is easy.

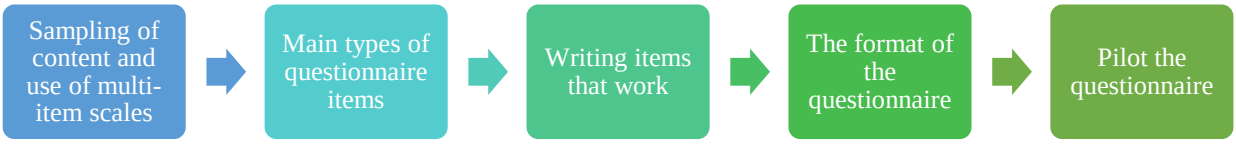
	The Hungarian language is beautiful. I really like the Hungarian language. The Hungarian language sounds nice

3.2.2.4. Pilot study: reliability of the questionnaire

The data collection of this present study took place in December 2021. Based on the peer feedback recorded beforehand, phrasing and wording of the questionnaire items were adjusted for comprehensibility. Given the language of instruction is English, the study questionnaire was piloted in English with 50 international students. A questionnaire was then set up online using Google forms' platform. The link to the questionnaire was sent out to the international students, requesting their participation. The collected data were scanned for incomplete answers or irrelevant participation sampling, then ran through IBM SPSS Statistics 22 for analysis, following data cleaning procedures as advised by Dörnyei (2009).

Dörnyei and Csizér (2012) reviewed the most common issues in questionnaire design and proposed guidelines to ensure relevant data collection and proper analysis. Figure 1 lists the questionnaire design steps.

Figure 1. Questionnaire design steps



They advise to start with appropriate sampling of content by clarifying the research problem, identifying the key concepts of the questionnaire, eliminating peripheral interest questions, and avoiding lengthy questionnaire though not below four items per subdomain. Likert scale has been widely used which consists of statements and five or six self-reporting options. Dörnyei and Csizér (2012) also recommend generating the item pool through exploratory studies and borrowed items from established questionnaires. Among the questionnaire item formulation rules, the items should be short and simple while avoiding ambiguous/loaded words and negative constructions. The

proposed length of a questionnaire should not exceed 6 pages with space economy and mixed-up items, which creates variety in the scales and items. The factual questions are best included at the end of a questionnaire while considering privacy and confidentiality. After fulfilling these steps, a pilot study should further fine-tune the definite questionnaire.

Reliability provides information whether the data collection procedure is consistence (Seliger & Shohamy, 1989). We were confident that the triangulated approach we employed in data collection would resolve question formulation issues and interrelated constructs. After several consultation sessions with the supervisor, we identified key elements and measurement sensitive factors of language anxiety, attitudes, and motivation from the literature review.

We assessed our questionnaire formulation then invited 5 unbiased persons for objective evaluation of the questions' formulation and clarity. We modified our questionnaire based on added information and referred to the literature to pick alternatives and invited the same persons again to double check. This process would increase the chances of improved procedure reliability (Seliger & Shohamy, 1989). Then, we conducted the pilot study at a Hungarian university in consistency of the situation as advocated by Glesne and Peshkin (1992), hoping for a range of 40 to 50 international students (as recommended by Dörnyei and Csizér, 2012) out of the 71 ones enrolled in the Hungarian language course.

The questionnaire instrument is shown to have strong content validity and construct support. With the recent changes added to the questionnaire, more procedure for factor-prediction was necessary. We analyzed the items at the pilot stage, to examine their quality in the questionnaire and to understand whether they were well formulated and understood. The relevant factor models were revisited and compared in Excel spreadsheets to examine the internal consistency. The pilot study was administered to 50 beginning learners of Hungarian. The internal consistency coefficient of the instrument was Cronbach's alpha which shows a high internal consistency for most factors. However, the ought to self L2 OWN/OTHER motivation factor had to be omitted because the questions do not correlate, and the reliability is low. Another question was deleted from the Linguistic self-confidence as it weakened the reliability of the construct.

Table 18 shows the inter-item correlation, reliability coefficient, and Cronbach's alpha a certain item is deleted. For number of items less than 10, Cronbach's alpha is moderately reliable at $\alpha > .5$

The cut-off point of the Cronbach's alpha is generally accepted at 0.7, in agreement with Nunnally's (1967) cut-off point, as shared in the Psychometric Theory. These are the widely accepted cut-off points:

- $\alpha \geq 0.9$ Excellent
- $0.7 \leq \alpha < 0.9$ Good
- $0.6 \leq \alpha < 0.7$ Acceptable
- $0.5 \leq \alpha < 0.6$ Poor
- $\alpha < 0.5$ Unacceptable

Inter-item correlations are essential to the item analysis of a questionnaire as they examine the extent to which item scores are related. The ideal range of this correlation is .15 to .50, any less and the items would not be measuring the same construct, and more than that and the items are closely correlated to be repetitive. The inter-item correlation, in Table 18 and Table 20, verified the accuracy of construct-items representation.

Table 18. Cronbach's alpha and inter-item correlation of the pilot study

Factor	**Cronbach's alpha**	**Number of items**	**Inter-item correlation**	**Cronbach's alpha if deleted**
Ideal L2 self-OWN	α = .902	3		
Ideal L2 self-OTHER	α = .564	3		
Ideal L2 self-OWN/OTHER	α = .831	6		
Ought to L2 self-OWN	*α = .437*	*3*	*.221*	
Ought to L2 self-OTHER	*α = -.207*	*3*	*.006*	
Ought to L2 self-OWN/OTHER	*α = .188*	*6*		
Linguistic self confidence	α = .693	4	*.361* *Item 2 total correlation .244*	*If item 2 is deleted* *α = .764*
Attitudes toward L2 community	α = .803	5		
Anxiety	α = .810	5		
Motivated behavior	α = .895	5		
Attitude toward language teacher	α = .856	5	.572	
Attitude to L2 course	α = .860	5		

The initial model included 41 observed variables (questionnaire items) that loaded on three latent variables (three items for each self-guide) and 5 latent variables for the rest of the factor grouping (five items for any other category). Six items that did not load properly on ought to L2 self-OWN/OTHER were deleted, along with an item from the linguistic self-confidence. The final

model, presented in Table 19, included 34 observed variables that strongly loaded onto the Ideal L2 OWN/OTHER self-guide and other factors.

Table 19. The questionnaire used in the nation-wide survey

Categories	Subcategories	Questions
L2MSS (L2 motivational self-system)	*Ideal L2 self*	OWN I can imagine a day when I speak Hungarian like a native speaker of Hungarian.
		OWN I can imagine a day when I write effectively and read fluently in Hungarian.
		OWN I can imagine a day when I speak Hungarian fluently with Hungarians.
		OTHER The people who are important to me hope that one day I will master the Hungarian language.
		OTHER It is my Hungarian teacher's hope that one day I will speak Hungarian fluently.
		OTHER My friends and teachers will be proud of me if one day I master Hungarian.
Linguistic self-confidence		If I make more effort, I am sure I will be able to master Hungarian.
		I believe that I will be capable of reading and understanding most texts in Hungarian if I keep studying it.
		I am sure I will be able to write in Hungarian comfortably if I continue studying.
Attitudes toward L2 community		International students should make a greater effort to learn Hungarian.
		Hungarians are a very sociable, warm-hearted, and creative people.
		I would like to know more Hungarians.
		The more I get to know Hungarians, the more I want to be fluent in their language
		Hungarians are very friendly and hospitable.
Anxiety	Language anxiety	It embarrasses me to volunteer answers in our Hungarian class.
		I always feel that the other students speak Hungarian better than I do.
		I get nervous and confused when I am speaking in my Hungarian class.
		I am afraid the other students will laugh at me when I speak Hungarian.
		I never feel quite sure of myself when I am speaking in our Hungarian class.
Motivated behavior		I work hard at studying Hungarian.
		I spend a lot of time studying Hungarian.
		I put a lot of effort in studying Hungarian.
		Studying Hungarian is very important to me these days.
		I constantly think about my Hungarian learning activities.
Attitudes towards the learning situation	Language teacher	I think my Hungarian teacher enjoys teaching the Hungarian language.
		The Hungarian teacher pays attention to me and listens to make a better connection.
		The Hungarian teacher creates a good atmosphere in the class with their humor.
		The Hungarian teacher comes ready for class.
		The Hungarian teacher introduces Hungarian culture in class so I can get to know the world of native Hungarian speakers better.
	L2 course	The Hungarian language is really important.
		The Hungarian language is easy.
		The Hungarian language is beautiful.
		I really like the Hungarian language.
		The Hungarian language sounds nice

3.2.3. Procedure

There were many strategies into play while collecting data; (a) classroom observations for the micro-study, and (b) cross-sectional nation-wide survey for the macro-study. After discussing the questionnaire design during a consultation, the researchers systematically searched for recent books on anxiety, attitude, and motivation. We had frequent weekly consultations to draft a valid questionnaire based on the situation assessment. The situation assessment was gathered from students' responses through the Google form initial survey regarding their reasons for enrollment and challenges. During this period, the questionnaire was presented to scholars and peers for their review to validate the questions and check for clarity. Several changes were then applied for a second peer-review. Based on the feedback that we received, the items formulation and selection were adjusted for better comprehensibility.

Upon explaining the situation to the Hungarian teacher at a Hungarian university, we obtained their permission to pilot the questionnaire with the enrolled students. The data collection took place in November 2021. As the participants reported different proficiency levels in English and Hungarian, based on self-evaluation, the questionnaire was piloted in English on 50 international students. After the completion of the pilot study, we revised the questionnaire based on internal consistency and reliability coefficient. A factor was then omitted due to its low internal consistency coefficient, which is discussed in the pilot study. When the definitive version of the survey was ready, we contacted language teachers, heads of departments, and students' associations at Hungarian universities. Most responses came from universities located in big cities, trickling at first then stagnating at 90 responses. We figured out the questionnaire was not getting enough exposure. The questionnaire distribution request was sent to Tempus Public Foundation (TPF). The TPF approved the request and distributed the questionnaire to international students studying at 21 Hungarian universities. There were many universities involved in the process, in a way that this survey covered most Hungarian universities. We relied on a cross-sectional questionnaire to collect a large amount of data. The survey was online for six months from November 2021 to April 2022. The collected data by the first week of April 2022 were submitted to SPSS 22 for analysis. Following data cleaning procedures (Dörnyei, 2009), we kept the 280 responses from our participants as the questionnaire would not proceed unless each mandatory section is filled, and the participants fit in the selection criteria.

Our approach enhanced the findings validity and increased the likelihood of measuring what we expected from a holistic view. The qualitative findings were checked vis-à-vis the quantitative findings to determine whether they contradicted or confirmed what was rendered from the questionnaire. First, the responses were imported to Excel spreadsheet based on questions categorization, namely constructs and factors. Each factor has a list of questions and the corresponding responses, based on Likert scale, from our cross-sectional study participants. The data was then coded on IBM Statistics SPSS 22.0 and ran for internal consistency and descriptive analysis. Second, we favored Microsoft Excel's graphical output over SPSS for aesthetic reasons and clarity. Most of our findings in the result section is generated from Microsoft Excel. The confirmatory analysis is then ran using IBM Amos 23.0 to draw the relations between these factors. For our last step, we analyzed the qualitative data with the use of MAXQDA to extract theme topics from our qualitative responses.

3.3. The micro-study

3.3.2. The motometer

3.3.2.1. The motometer design

Motivational dynamics is a major research topic in applied linguistics (Dörnyei, MacIntyre, & Henry, 2014). The design of this test incorporates a few characteristics of a dynamic system; change, stability, and context. Gardner and his colleagues (2004) designed a motometer for single measures of state motivation throughout the whole academic year only for four times. Waninge et al. (2014)'s adaptation is designed to detect motivation variance in a lesson. It is concise and does not disturb any of the students. In this sense, this adaptation does not differ from Pawlak's (2012) 'motivational grid'. I kept track of their observations, the lesson plan, the activities, and classroom events, to provide context to such motivational variation.

From a dynamic systems theory DST viewpoint, the goal of this study is to analyze data to support the notion of individual in-class motivation. Furthermore, bearing these results in mind helps the instructor to create suitable classroom activities/simulations that promote/develop/enhance optimum learning while also accommodating diverse individual variances. This study's research questions necessitated two stages of research design:

- Stage 1 supplied the quantitative data needed to explore the variability and stability in each participant's motivation, necessitating a longitudinal approach. By filling out a Motometer, participants supplied information about their motivation.
- The qualitative data from Stage 2 was utilized to investigate any noticeable variability and stability in the participants' motivation. This offered descriptive data for examining the quantitative findings in relation to the classroom's setting and context.

The 'motometer' consists of 10 figures shaped as thermometer on a percentage-based scale from 0 to 100, with each figure prompted every 5 minutes representing intervals of a 45–50-minute session. The prompting was either done by their teacher or a timed soft bell sound as done by Waninge et al. (2014). Motivation was defined as effort and enjoyment they experience with the activity at hand. Each feedback paper had a comments section after the 'motometer' to record the qualitative explanations of students' experience. Classroom observations data is supplemented with dynamic motivation meter, motometer, as a procedure used for gathering reported motivation levels in a set of predefined intervals.

3.3.2.2. Participant's criteria

According to Waninge's et al. (2014) individual-level microanalysis, we picked four students for in-class qualitative observation and quantitative motometer test administration. They were selectively picked out of 71 students taking A1 Hungarian language class in their 11th week, after a brief consultation with their language teacher, a quick chat with the students and prior acquaintance with some of them with personality and in-class behavior as the main selection criteria to represent the general composition. Waninge et al. (2014) decided on four students for facilitated and sufficient individual analysis. Their motivational variability was recorded over three sessions, which is relevant for a micro-inspection, considering the shift between their class schedule and their attendance frequency.

Student 1, T is described as an attentive and good student as she usually pays attention to the teacher and makes efforts in and out the classroom. Student 2, J, can sometimes get distracted and lose attention to the task at hand, but requests a second clarification. Student 3, D, actively participates and asks questions. Student 4, C, does other things in class besides doing activities and selectively pays attention only replying when asked directly. Their age group ranges from 18 to 22 years old, with cultural backgrounds from South-east Asia. They enrolled to the Hungarian language class for the credit's completion and the scholarship requirements.

3.3.2.3. Test administration

Waninge et al. (2014) designed the motometer on a five-minute intervals scale for 3 sessions, 45 minutes each in the Hungarian class. I kept logs of the classroom activities, students' profiles, and comments expressing students' attitudes and opinions toward their teacher. Their teacher shared her available teaching hours at the university and gave them the liberty to attend any time if each student received two sessions of instruction each week. Appendix 1 illustrates classroom activities throughout the sessions.

Before the first session, the selected students were introduced to the 'motometer' and presented with a demonstration. They did not find the recorded soft bell sound invasive, as it was similar to a text message they receive on their smartphones. Students received a printed 'motometer' paper and were instructed to report their motivation level on the scale when I indicated that 5 minutes passed. The Motometer is in Appendix 2. While students were learning Hungarian in classroom, I wrote down starting time of each activity and students' reactions and behavior during the entire task, such as interaction with each other and the teacher, participation or asking questions.

3.3.2.4. Procedures and Data Analysis

I profiled each student based on my observations and teacher comments as indicated in students' profiles. The Motometer data were numerated by the students in percentage which made the analysis easier as opposed to what Waninge et al. (2014) did with motometer line and bottom distance measurement in millimeters. Each participant later had a line of data in Excel with their recorded motivation percentages. Using Excel, the data were entered into graphs for each of the lessons and each of the student to show variability. In the data graphs, the horizontal axis represented time on a scale divided in 5 minutes, while the vertical axis was for the motivation levels. More data were extracted from the observation sheets to be coded and categorized into 'general classroom activity,' which focused on the general overall lesson activities, and 'episodic instances,' which recorded shorter instances that involve the students and the teacher.

Later, Motometer data and observational data were combined in 'composite charts,' where participants' motivation levels were linked to the observational data, which were placed under the timescale. Afterwards, the comments, which were gathered on the motometer comment section and after class conversation with their teacher, were added after the observational data. The observational data presented relevant context for the motometer data and an explanation to the graphs and chart, which are provided in the results section.

The Motometer data was submitted as a numeric value in step 1. The information gathered was used to construct data sets for each participant for each observation lesson using Excel. The datasets were turned into graphs to provide a visual representation of motivation fluctuation. Each participant data was coded chronologically in step 2. Merging step 1 and step 2 into a composite chart structured by 5-minute intervals in step 3. Participants' and teachers' comments and reflections were included in step 4. These steps produced composite charts to visualize each participant's overall motivation development over time.

CHAPTER 4. RESULTS

This chapter presents the analyses of the data collected by the questionnaire, in the macro study, and during classroom observations, in the micro study.

4.1. Macro study

Shapiro-Wilk test is a preferable normality test for its detection sensitivity with samples smaller than 2000. The normality tests for samples larger than 100 are conservative and the assumption of normality should not be taken for granted. For a sample size of 280, Shapiro-Wilk normality test suggests convincing evidence of non-normality for item groups with a p-value $\leq \alpha$. For a sample population that does not follow a Gaussian distribution, non-parametric tests are called upon for their distribution-free tests characteristics. When the independent variables are introduced in a second normality test, we conclude p-value $> \alpha$ at the significance level of .05. A normality test is assumed for this data set, and parametric tests can be used. With this sharply different sample size, homogeneity should be checked. Levene's test showed that the variances in the sample size questionnaire answers with all the independent variables were equal. The homogeneity of variance is not violated since the Levene's test is not significant and the data set is normally distributed as indicated in Shapiro-Wilk normality test, which suggests using parametric tests for further analysis.

4.1.1. Reliability test and descriptive analysis

The reliability of the questionnaire was analyzed by piloting the instrument, modifying it based on the reliability analyses. Furthermore, a reliability analysis was also used with the data of the final questionnaire (see Table 23). Cronbach's alpha reliability coefficient was .907 for *Ideal L2 self-OWN* based on 3 items with an interitem correlation of .766, suggesting the internal consistency of the scales. The reliability coefficient for *Ideal L2 self-OTHER* was .694 based on 3 items with an interitem correlation of .436, which suggests a weaker internal consistency than the *Ideal L2 self-OWN*. Cronbach's alpha reliability coefficient for *Ideal L2 self-OWN and OTHER* factor grouping was .877 with an acceptable interitem correlation at .541. For *Linguistic self-confidence*, the Cronbach's alpha reliability coefficient suggests the internal consistency of the scales at .832 and .627 for interitem correlation based on 3 items. For *Attitude toward L2 community*, the reliability coefficient also suggests an internal consistency of the scales at .845 with an interitem correlation

at .518 based on 5 items. Cronbach's alpha reliability coefficient was .793 for *Anxiety*, based on 5 items, with interitem correlation at .436, and .920 for *Motivated behavior*, based on 5 items, with interitem correlation at .699. For *Attitude toward language teacher*, the item grouping suggests internal consistency of the scales with Cronbach's alpha coefficient at .899, based on 5 items, with interitem correlation at .655. Cronbach's alpha reliability coefficient for *Attitude toward the course* was .867 based on 5 items with interitem correlation at .552. Table 20 displays the internal consistency of each scale.

Ideal L2 self-OWN has the strongest reliability coefficient and interitem correlation compared to Ideal L2 self-OTHER, as a self-guide. Motivated behavior is internally consistent with the highest reliability coefficient.

Table 20. Reliability and internal consistency of the questionnaire

Factor grouping	**Sub-categories**	**Number of items**	**Cronbach's Alpha coefficient**	**Interitem correlation**
Ideal L2 self OWN/OTHER	Ideal L2 self-OWN	3	.907	.766
	Ideal L2 self-OTHER	3	.694	.436
	OWN/OTHER combined	6	.877	.541
Linguistic self-confidence		3	.832	.627
Attitude towards the L2 community		5	.845	.518
Anxiety		5	.793	.436
Motivated behavior		5	.920	.699
Attitude towards the language teacher		5	.899	.655
Attitude towards the course		5	.867	.552

Cronbach's alpha reliability coefficients of all the scales suggest an internal consistency (Table 20), as the reliability coefficient values were larger than 0.5 for items < 10. The reliability

coefficients, means M and standard deviations SD of the measured scales and are presented in Table 21.

Table 21. Cronbach's alpha values and descriptive statistics for the scales used (N=280)

Variables	M (SD)	α
Ideal L2 self-OWN	3.35 (1.49)	.907
Ideal L2 self-OTHER	3.96 (1.25)	.694
Linguistic self confidence	4.2 (1.28)	.832
Attitude toward L2 community	3.97 (1.18)	.845
Language anxiety	3.07 (1.10)	.793
Motivated behavior	3.35 (1.31)	.920
Attitude toward language teacher	4.77 (1.13)	.899
Attitude toward course	3.46 (1.19)	.867

The average response from the 280 participants for each item was between 3 (slightly disagree) and 4 (slightly agree) based on the means (M) and standard deviation (SD) as shown in Table 24. This is borderline a neutral opinion on average. However, the attitude toward the language teacher was on average near 5 (agree) (M= 4.77, SD = 1.13), which is notable based on our sample size.

At this point, we entertained the assumption that students from different universities do not share the same opinion, on average. After coding 21 universities in SPSS and identifying the 13-missing data, we ran descriptive analysis to compare the means of item-grouping answers based on the university. According to One-way ANOVA, there are significant differences between the answers based on universities for the following item-groups: Ideal Self OTHER ($F(20) = 2.260$, $p < .001$), Linguistic self-confidence ($F(20) = 1.849$, $p < .05$), and Motivated behavior ($F(20) = 1.675$, $p < .05$). However, the reported answers do not show any significant correlation with the students' universities. These results have to do with the non-Gaussian distribution of our participants, as the sample size for each university varies from 1 to 54 students.

The second assumption is the extent of the student status influence on participants' answers. After running the dataset again paired with the student status through One-way ANOVA, there are significant differences based on the study program/student status for these item-groups: Ideal Self

OTHER (F (3) =2.490, p< .05) and Motivated behavior (F (3) =4.792, p< .001. Interestingly, the student status has a low negative correlation with language anxiety (r= -.122, p< .05).

As can be seen by the frequencies cross tabulated, there is a significant relationship between language proficiency/skills in Hungarian, student status, academic level, and some of the questionnaire items. The Chi-square analysis of variables significant relations can be seen in Table 22. The duration of stay (in months) does not have any effect on the any of the latent and observed variables and factors. The item-level analysis in Table 22 shows more covariance than with the latent variables (item-grouping).

Table 22. Variables significant relations based on Chi-square analysis

Factors	Items	X^2/df (N=280)
Language proficiency/skills in Hungarian	1. I can imagine a day when I speak Hungarian like a native speaker of Hungarian.	43.560/20**
	2. The people who are important to me hope that one day I will master the Hungarian language.	40.406/20**
	3. I am sure I will be able to write in Hungarian comfortably if I continue studying.	43.818/20**
	6. I can imagine a day when I speak Hungarian fluently with Hungarians.	47.215/20**
	7. My friends and teachers will be proud of me if one day I master Hungarian.	36.624/20*
	11. I can imagine a day when I write effectively and read fluently in Hungarian.	51.842/20**
	15. The more I get to know Hungarians, the more I want to be fluent in their language.	33.832/20*
	18. I believe that I will be capable of reading and understanding most texts in Hungarian if I keep studying.	30.124/20*
	19. The Hungarian language sounds nice.	38.515/20**
	22. If I make more effort, I am sure I will be able to master Hungarian.	33.260/20*
	23. I constantly think about my Hungarian learning activities.	32.853/20*
	26. I work hard at studying Hungarian.	32.099/20*
	27. I spend a lot of time studying Hungarian.	43.526/20**
	28. Studying Hungarian is very important to me these days.	35.435/20*
	29. The Hungarian language is easy.	32.442/20*
	31. The Hungarian language is beautiful.	32.982/20*
	32. I put a lot of effort in studying Hungarian.	41.760/20**
	34. I really like the Hungarian language.	40.464/20**
Student status	2. The people who are important to me hope that one day I will master the Hungarian language.	24.070/15*
	7. My friends and teachers will be proud of me if one day I master Hungarian.	24.533/15*
	26. I work hard at studying Hungarian.	30.880/15**
	27. I spend a lot of time studying Hungarian.	29.567/15*
	28. Studying Hungarian is very important to me these days.	25.849/15*

Academic level	32. I put a lot of effort in studying Hungarian.	39.567/15**
	12. The Hungarian teacher introduces Hungarian culture in class so I can get to know the world of native Hungarian speakers better.	35.293/20*
	16. The Hungarian teacher comes ready for class.	42.577/20**
	31. The Hungarian language is beautiful.	30.174/20*

*Note. *p < .01 and **p < .001*

Language proficiency/skills in Hungarian seems to have the highest significant relations with most of the questionnaire items, based on Table 22.

4.1.2. Confirmatory factor analysis

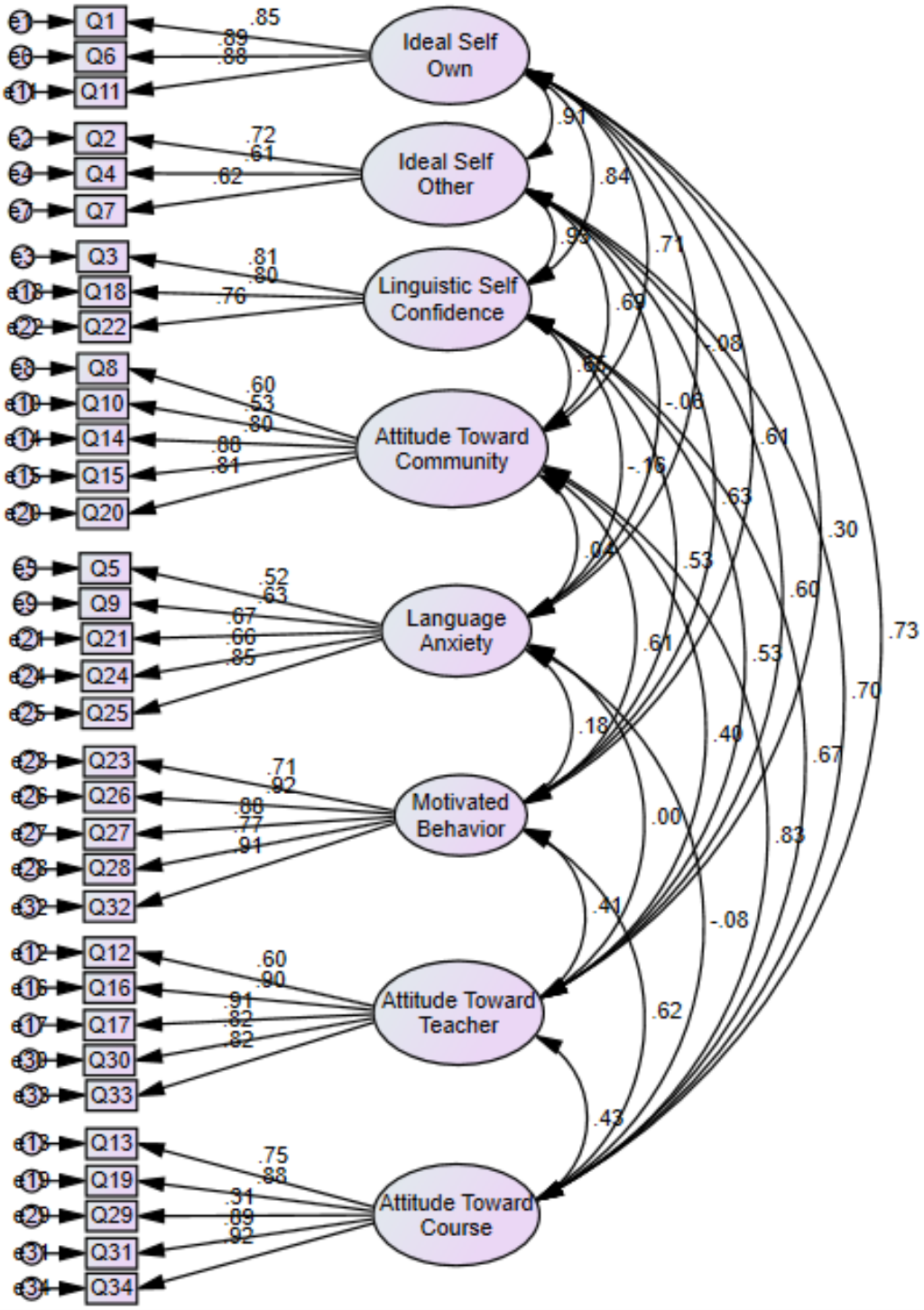
Based on likelihood estimation with the use of IBM SPSS AMOS 23.0, we looked at the confirmatory factor analysis (CFA) to examine the presented motivation models in our questionnaire. The initial questionnaire included 41 items, before the pilot study, and consisted of 10 categories. After the pilot study and while running the reliability analysis with Cronbach's alpha on IBM SPSS 22.0, most of the items loaded properly, and especially on items from Ideal L2 self-guide, while Ought to L2 self-guide, and an item in Linguistic self-confidence did not load and were therefore deleted. The final questionnaire model, presented in Table 19, included 32 observed variables that strongly loaded and showed strong correlation. Tables 20 and 21 include the questionnaire item-groups with their reliability coefficients and descriptive statistics, respectively. Chi-square to degrees of freedom was X^2 (499, N = 280) = 1401.400, p <.001. For samples over 250, as in our case with 280 responses, other measures of goodness of fit were considered. The Amos output confirmed our questionnaire was an adequate fit with the Root Mean Square Error of Approximation (RMSEA) > .05, the Comparative Fit Index (CFI) near .9, and the Tucker-Lewis Index (TLI) near .9 as well, which are borderline fine. Table 23 shows that these values strongly confirm a good fit for the questionnaire.

Table 23. Model fit summary

	X^2/df (N = 280)	**RMSEA**	**CFI**	**TLI**
The questionnaire	1401.400/499***	.081	.871	.855

*Note. *p, .05; **p, .01; ***p, .001*

Figure 2. Confirmatory factor analysis results for the questionnaire items



The groups represent the unobserved latent factors that explain the set of observed variables represented by the items, which are observed in Figure 2. The models for the Structural Equation Modeling SEM with latent variables require observable variables to produce a structural model for the sample size covariance/correlation matrix of the manifest variables. The latent variables covariance/correlation matrix is presented in Table 24 in order from the most positively correlated to the negatively correlated.

Table 24. Latent variables covariance

Latent variables 1	**Latent variables 2**	**Covariance/Correlation**
Ideal self-OTHER	Linguistic self-confidence	.99
Ideal self-OWN	Ideal self-OTHER	.91
Ideal self-OWN	Linguistic self-confidence	.84
Attitude toward community	Attitude toward course	.83
Ideal self-OWN	Attitude toward course	.73
Ideal self-OTHER	Attitude toward course	.70
Linguistic self-confidence	Attitude toward course	.67
Ideal self-OTHER	Motivated behavior	.63
Motivated behavior	Attitude toward course	.62
Ideal self-OWN	Motivated behavior	.61
Ideal self-OTHER	Attitude toward the teacher	.60
Linguistic self-confidence	Attitude toward community	.55
Linguistic self-confidence	Attitude toward the teacher	.53
Linguistic self-confidence	Motivated behavior	.53
Motivated behavior	Attitude toward teacher	.41
Attitude toward community	Attitude toward teacher	.40
Attitude toward community	Language anxiety	.04
Ideal self-OTHER	Language anxiety	-.6
Ideal self-OWN	Language anxiety	-.8
Language anxiety	Attitude toward community	-.8
Linguistic self-confidence	Language anxiety	-.16

Based on Table 24, the following latent variables' relations are concluded:

- Ideal self own and other positively correlate the best with linguistic self-confidence.
- Both Ideal self guides are in a positively high covariance.
- The attitude toward community is closely related to the attitude toward the course more than the Ideal self own and other.
- Ideal self other is closely related to motivated behavior more than Ideal self own.
- Ideal self other is also closely related to the attitude toward teacher.
- Language anxiety negatively correlates with Ideal self own and other, linguistic self-confidence and attitude toward community.

4.1.3. Factors intercorrelations

The item grouping means were run through SPSS to check for intercorrelations between the self-guides and other factors and in-between self-guides, as presented in Table 25.

Table 25. Intercorrelations

	Ideal L2 self-own	Ideal L2 self-other	Linguistic self-confidence	Attitude toward L2 community	Language anxiety	Motivated behavior	Attitude toward the teacher	Attitude toward the course
Ideal L2 self-own	1							
Ideal L2 self-other	.700**	1						
Linguistic self-confidence	.718**	.701**	1					
Attitude toward L2 community	.641**	.558**	.587**	1				
Language anxiety	-.082	-.053	-.155**	.025	1			
Motivated behavior	.609**	.551**	.511**	.602**	.117	1		
Attitude toward the teacher	.313**	.543**	.507**	.416**	-.010	.423**	1	
Attitude toward the course	.696**	.568**	.616**	.746**	-.068	.640**	.423**	1

*Note. *p < .01, **p <.001*

The findings from Table 27 are also true for the intercorrelation findings from Table 28, but with a few exceptions. We also determine the following conditions: Participants' Ideal self-own perspective is in synchronization with their other self-guide, Ideal self-other, linguistic self-confidence, motivated behavior and positive attitude toward the community, teacher, and course. A strong positive correlation is also determined for the listed variables. Moreover, participants who report language anxiety tend to report low linguistic self-confidence.

4.1.4. Exposure frequency to the environment and context

Based on the 280 responses, each participant rated their frequency of exposure to certain contexts as discussed in the methodology. The most common contexts are interacting with Hungarian teachers (M= 3.22, SD= 1.112) and shopping (M= 3.46, SD= 1.154), which falls in the rough estimation of 'sometimes. Most of the participants rarely interact with their Hungarian friends (M= 2.49, SD= 1.145), and rarely read in Hungarian (M= 2.18, SD= 1.146) or watch any videos in Hungarian (M= 1.95, SD= 1.075). Cronbach's alpha reliability coefficient for context exposure was (.728) for 5 items which suggests a moderate internal consistency. As expected, the latent variables as referred to in the confirmatory analysis have a positively moderate correlation with the exposure contexts at $p < .001$. Table 26 describes this correlation.

Table 26. Latent variables correlation with frequency of context exposure to Hungarian

	Interacting with friends	Interacting with Hungarian teachers	Watching movies/videos	Reading	Shopping
Language anxiety	.057	-.018	.104	-.008	.118*
Motivated behavior	.358**	.365**	.459**	.428**	.276**
Attitude toward teacher	.167**	.422**	.184**	.119*	.280**
Attitude toward community	.364**	.310**	.327**	.292**	.203**
Attitude toward course	.410**	.292**	.428**	.367**	.193**
Linguistic self-confidence	.316**	.372**	.348**	.315**	.299**
Ideal self-Own	.389**	.339**	.412**	.343**	.237**
Ideal self-Other	.319**	.408**	.341**	.262**	.223**

*Note. *p < .01, **p <.001*

4.1.5. Responses comparison based on participants' background

We considered our participants' background information then investigated the responses' pattern based on group tendencies.

4.1.5.1. Gender

The gender based comparison of the Ideal L2 Self Own averaged responses between males and females had no significant differences, for the condition $t(278, 255.59) = 1.99$, $p < .05$. However, the responses from the Ideal L2 Self Other were significantly different between males and females, for the condition $t(278, 255.057) = .407$, $p > .05$.

The attitude toward the Hungarian teacher was the only attitude that showed no significant difference between males and females, $t(278, 238.60) = -2.142$, $p < .05$. In this sense, the attitude toward the community and the attitude toward the Hungarian course were significantly different between genders, respectively for these conditions $t(278, 251.33) = 1.798$, $p > .05$ and $t(278, 256.753) = 1.189$, $p > .05$.

Additionally, the responses from the Linguistic self-confidence, Anxiety, and Motivated behavior categories show significant differences between males and females, for the condition of $p > .05$.

4.1.5.2. Academic level

Based on One-way Anova, there is a significant difference in the attitude towards the Hungarian teacher between the students from all the academic levels ($F= 2.938$, $p = .021$, for the condition $p < .05$).

4.1.5.3. Student status

There is a significant difference in Motivated Behavior between students based on their financial status, according to One-way Anova ($F= 4.792$, $p= .003$). The scholarship holders of both programs in English and Hungarian, and the self-financed students answered significantly different only in the Motivated Behavior item-grouping. The Stipendium Hungaricum scholarship holders who are enrolled in English programs and the self-financed students, on average, answered 'slightly disagree' ($M1= 3.30$, $SD1= 1.28$; $M2= 3.12$, $SD2= 1.30$) to questions related to Motivated Behavior. However, the scholarship holders enrolled in Hungarian programs answered on average 'agree' ($M3= 4.6$, $SD3= 1.35$).

4.1.5.4. University

One-way Anova reveals that there are also different responses for Ideal L2 Self Other ($p= .002$), Linguistics self-confidence ($p= .017$), and Motivated Behavior ($p= .038$), in comparison between

universities. While students at big universities answered ‘agree’ for the categories that show significant differences, others answered ‘disagree’ to ‘slightly disagree,’ on average.

4.1.5.5. Hungarian language proficiency

Comparing students’ answers, based on their Hungarian language proficiency in One-way Anova, reveals significant difference (for the conditions $p < .05$ and $p < .001$) for all the item grouping factors, except for Anxiety. There was no significant difference between groups for the Anxiety answers.

4.1.5.6. Duration of stay

Most students have been living in Hungary for 18 months, with the reported duration of stay ranging from 1 month to 120 months. On average, they have been residing in Hungary for 19 months ($M = 19.76$, $SD = 16.71$). According to One-way Anova, the responses comparison between students based on their duration of stay had no significant differences ($p > .05$).

4.1.6. Qualitative analysis

As mentioned in the strategies section, the qualitative differences in our participants’ reported behavior need to be examined to do justice to the complexity of motivation and to understand their motivation in Hungarian language learning. Most individuals have qualitative distinct strategic means in pursuing their goals (Higgins, 1997).

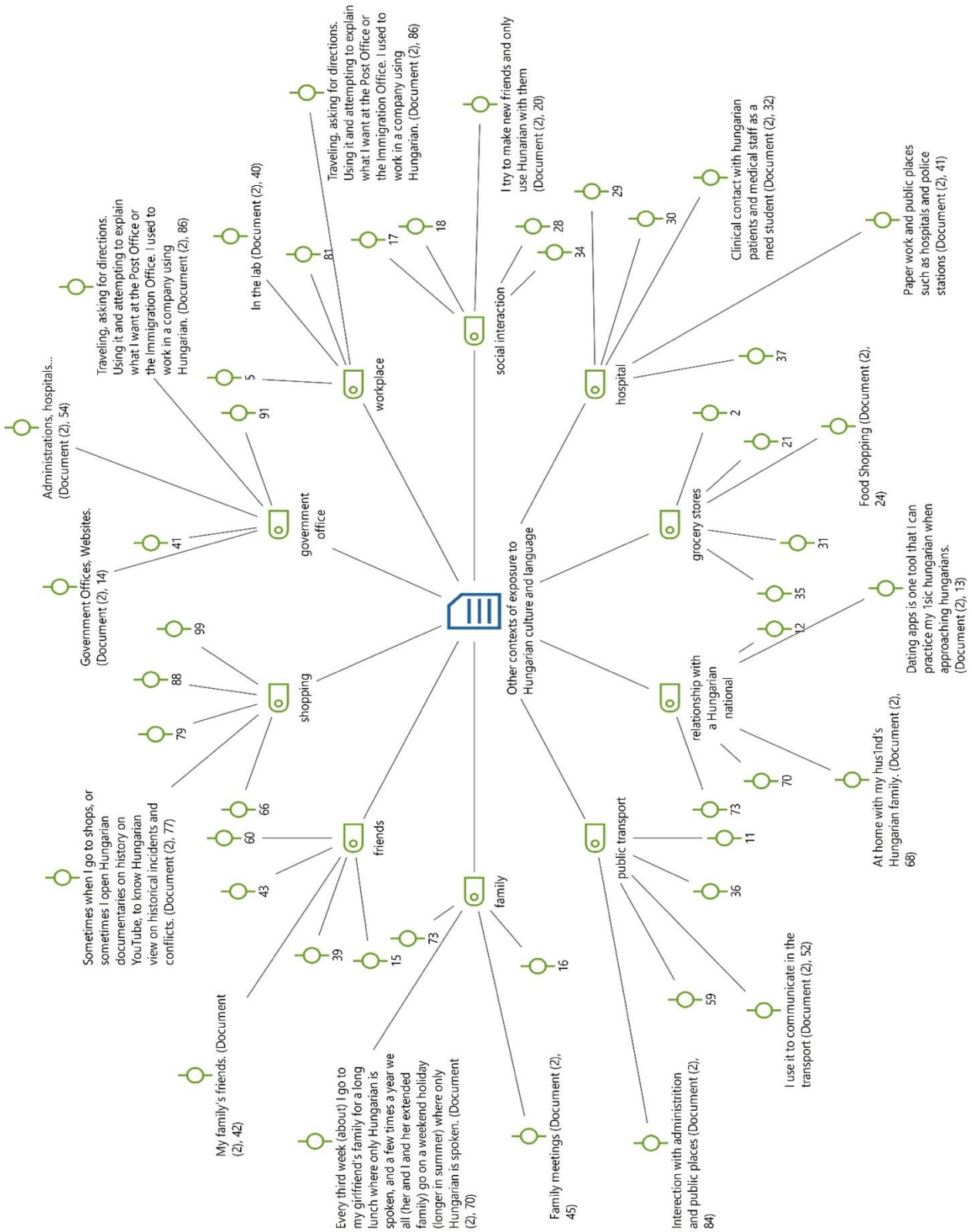
The questionnaire comments were imported to a document in MAXQDA to list down situations where international students interact with Hungarians. This list generated contexts of exposure to Hungarian culture and language through their answers. Every context was entered as a parent code and then attributed to relevant segments in the entire document. After careful analysis, each segment of the document was coded and then activated for map visualization. The MaxMaps add-on loaded the coded segments and automatically provided a parent-tree, which is presented in Figure 3, with segments referring to the lines of the document.

Most of the participants left a comment in the ‘other context’ section, whose answers were screened to delete missing answers and irrelevant comments. The final document has 93 answers that could be code segmented in 24 topics, which are represented in Figure. The most frequently mentioned contexts are ‘social interaction’ with 13 coded answers, ‘hospital’ with 10 coded answers, ‘grocery stores’ and ‘public transport’ with 7 answers each. However, the coded segments

show relevant interactions between topics as in the context of social interaction at the university with Hungarian friends, while those categories can also be coded as separate topics. A few participants mentioned interacting with their Hungarian significant others, friends, and potential dates. Only one person reported making phone calls in Hungarian.

International students tend to speak Hungarian with Hungarian native speakers in various contexts. Figure 3 can be navigated from the center and outward to the theme topics: government office, workplace, social interaction, hospital, grocery stores, relationship with Hungarians and their families, public transport, family, friends, and shopping malls. We illustrated each theme topic with a relevant example related to that category.

Figure 3. MaxMaps visualization of coded segments from the comments



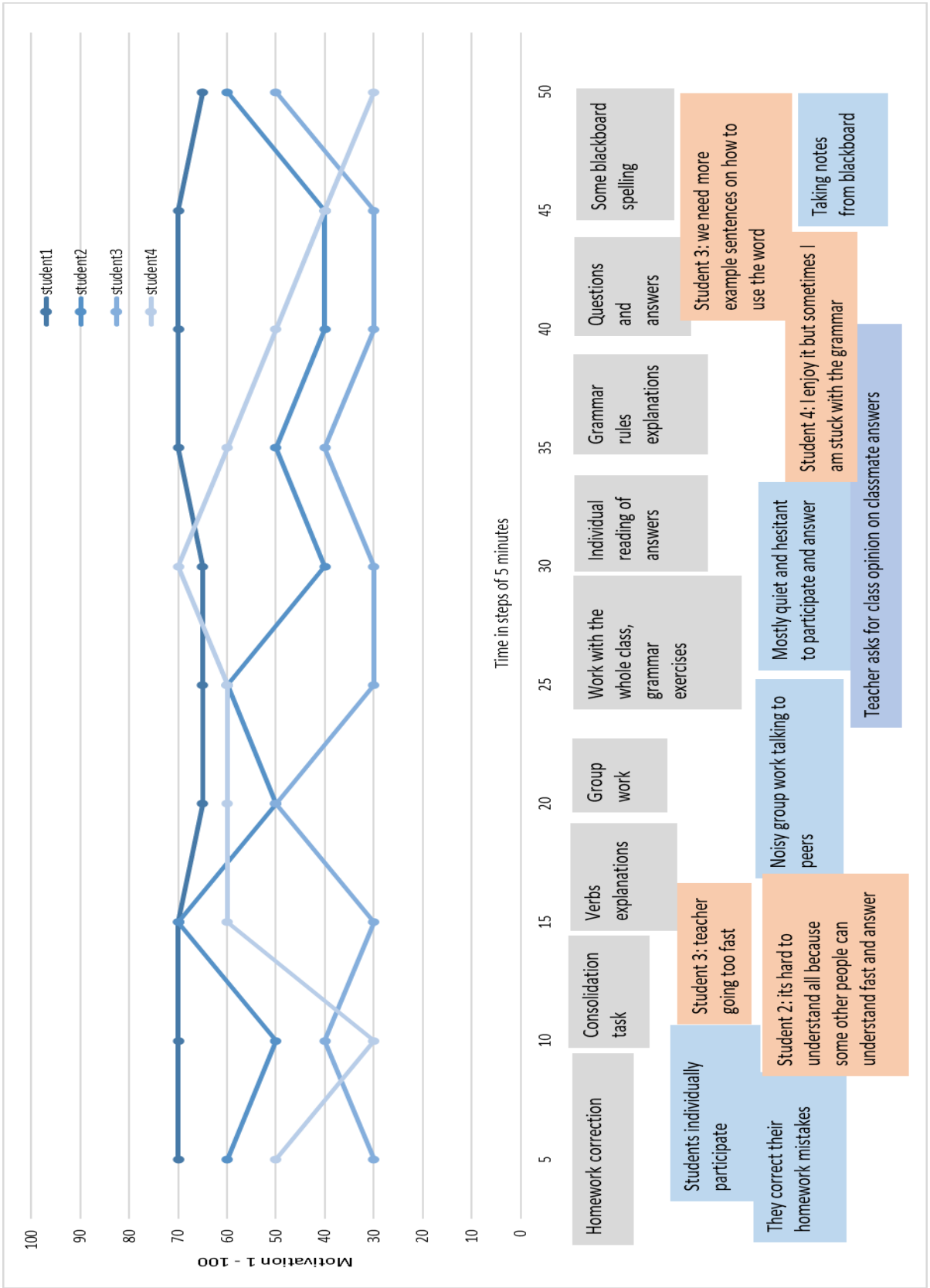
4.2. Micro study – Classroom observations and motivation

4.2.1. Overview of class progression

The combined data from the motometer and observational data gathered substantial information through the three observed lessons. As described and presented in Waninge et al.'s (2014) study, a large composite chart was prepared to map the motometer data with relevant contextual information in the third session, as the first couple of sessions were pilot tests for students to get accustomed to the motometer instrument and comments.

Figure 4 offers an illustration of the Hungarian language classes. The horizontal axis shows the time in steps of five minutes, under which there is a list of activities in each session and lesson plan progress, identified as general classroom activity, and another level showing classroom observational comments, identified as episodic instances. The comments collected from motometer answers are included in separate blocks. Due to space limitations, subsets of the overall data charts are displayed in smaller and separate graphs.

Figure 4. Composite chart of the progression of the Hungarian class



4.2.2. Student profiles

The classroom observation notes helped prepare individual students' profiles. The general and learning characteristics are drawn from the in-class observations after attending multiple sessions with the participants. They tend to show consistent behavior, which helped with drafting their profiles. These profiles could help understand some aspects of the motivational dynamics. Students' typical characteristics and learning characteristics are shown in Table 27 The profiles highlight students' overall characteristics and classroom behavior during the Hungarian class. Due to the small-scale study, it was manageable to gather and interpret observational notes and qualitative data. Student 1 is serious about learning which shows in her task performance, though she keeps quiet and holds back from participation. Student 2 gets distracted easily, yet unlike student 4, he does not show any effort keeping up with the lesson. Student 3 participates the most among his peers and seems to have the right answer most of the time. Each participant is reserved a line in Table 27 with their general characteristics and learning characteristics to highlight the individual differences in their classroom behavior and performance.

Table 27. Student profiles

Student details	General characteristics	Learning characteristics
Student 1 Gender: F	Serious about learning. Enthusiastic, but stays quiet in class. Learns better with blackboard.	Learns easily and finishes the tasks relatively faster than her peers
Student 2 Gender: M	Easily distracted and seems struggling with the activities	Studies without putting any effort and procrastinates
Student 3 Gender: M	Participates and explains the task to his neighboring peers	Keeps up with the homework and classroom tasks
Student 4 Gender: M	Seems distracted but tries to keep up with the classroom tasks	Does not put effort into studying languages

4.2.3. Change and variability

The findings show a notable individual variability in the students' motivation. The figures illustrate the motivational development of the participants during the Hungarian lessons, with the data displayed on graphs at the group and the individual levels. The timescale is placed on the Axis X,

while motivation level is on Axis Y. The fluctuation shown in between is the motivation level over time.

Figures 5, 6, and 7 display different patterns. For the overall group motivation, the pattern in Figure 5 shows a fluctuating increase in the first session from a moderately low level (47.5/100) to a moderately elevated level (63.75/100), while the other sessions show a constant moderate level (58.75/100 to 57.5/100) in the second session figure 6 and (52.5/100 to 51.25) in the third session (Figure 7).

Figure 5. Hungarian lesson 1, group average of motivational progression

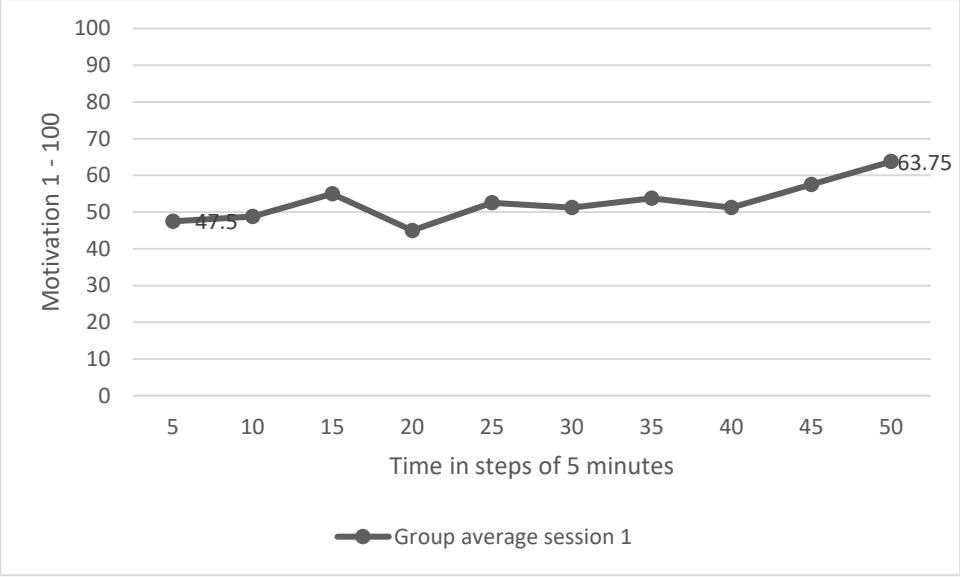


Figure 6. Hungarian lesson 2, group average of motivational progression

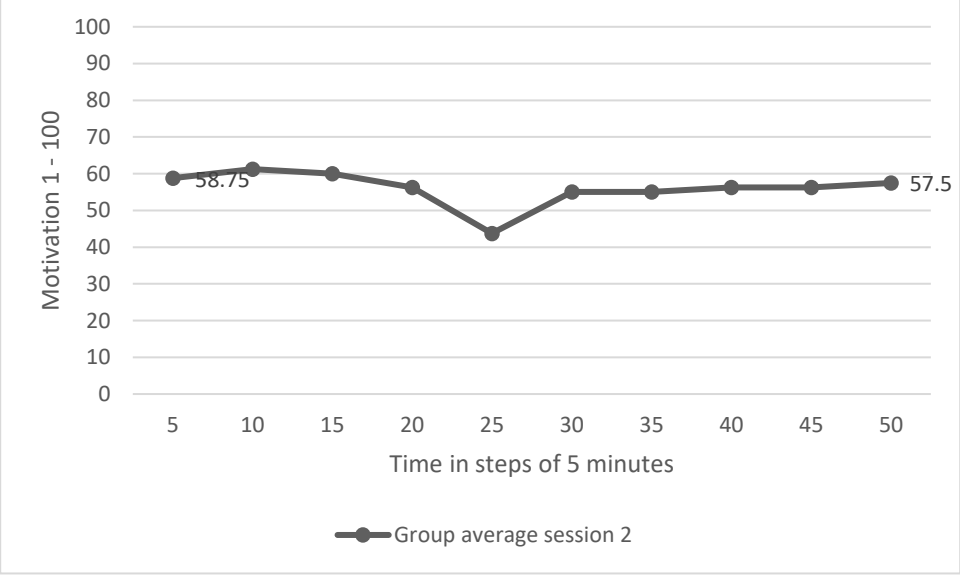
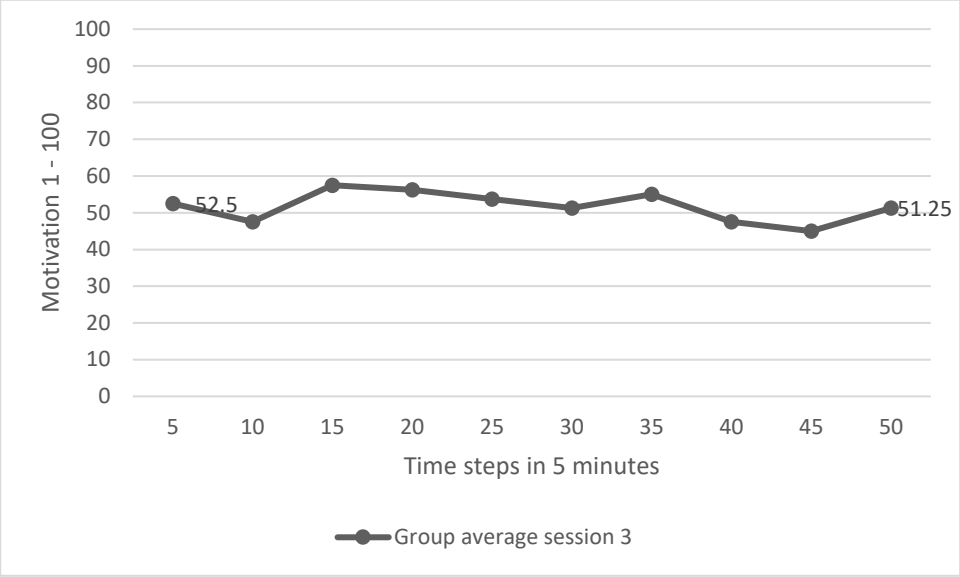


Figure 7. Hungarian lesson 3, group average of motivational progression



However, the individual level trajectories in motivational development individual progression figures differs from the group average pattern: On the individual level throughout the sessions there are ups and downs. Figures 8, 9, and 10 show that student 4 gained sudden motivation in the first session, from a low 30/100 to a high 90/100, and second session, from a moderate 50/100 to a high 80/100, but seemed rather unmotivated during the third session, from a moderate 50/100 to a low 30/100. Whereas the progression of other students' motivation shows an increase and a decrease variation in the moderate range (40 to 60 /100). Student 1 kept a relatively constant motivation in the third session (see Figure 10) with a slight variation of 5/100 during 50 minutes from a high 70/100 to a high 65/100.

Figure 8. Motivational development individual progression during Hungarian lesson 1

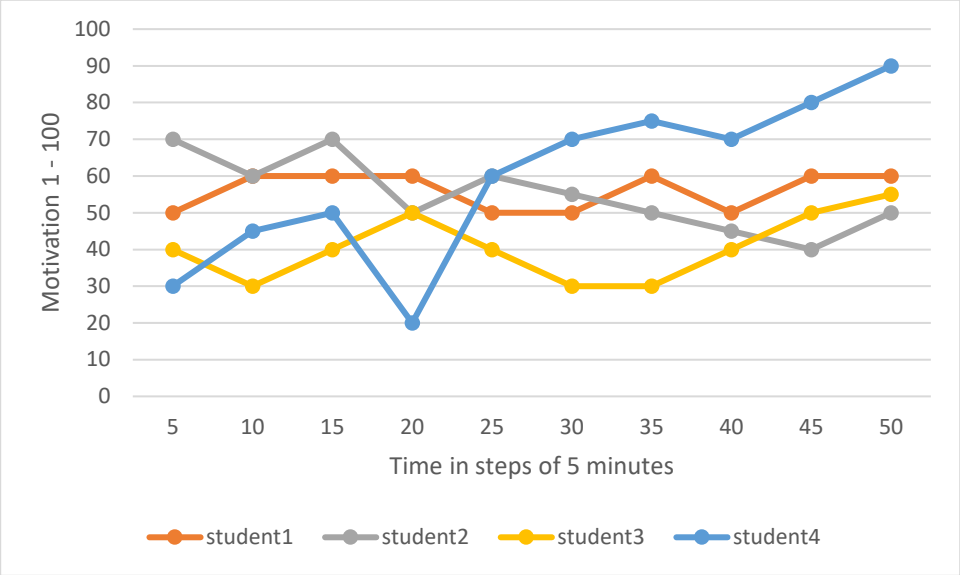


Figure 9. Motivational development individual progression during Hungarian lesson 2

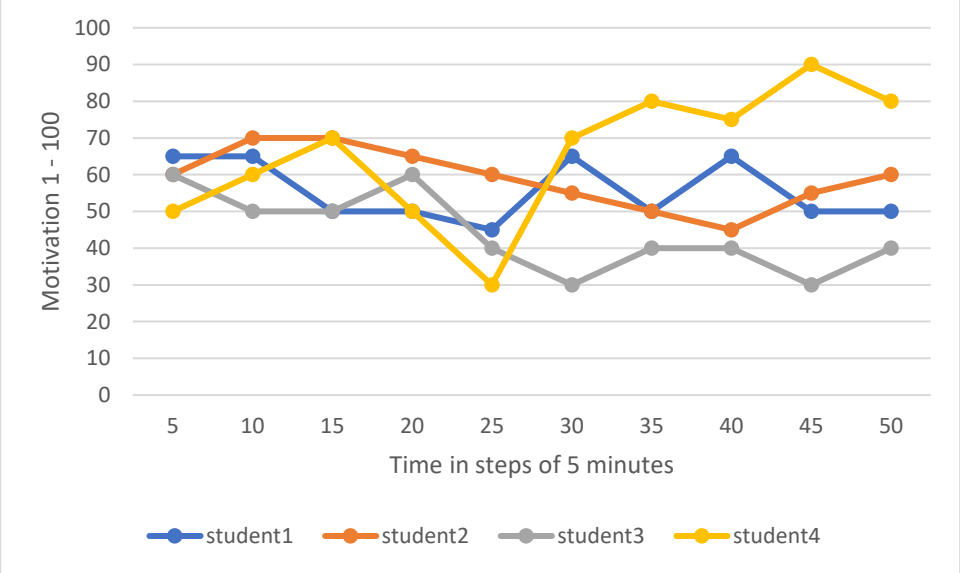
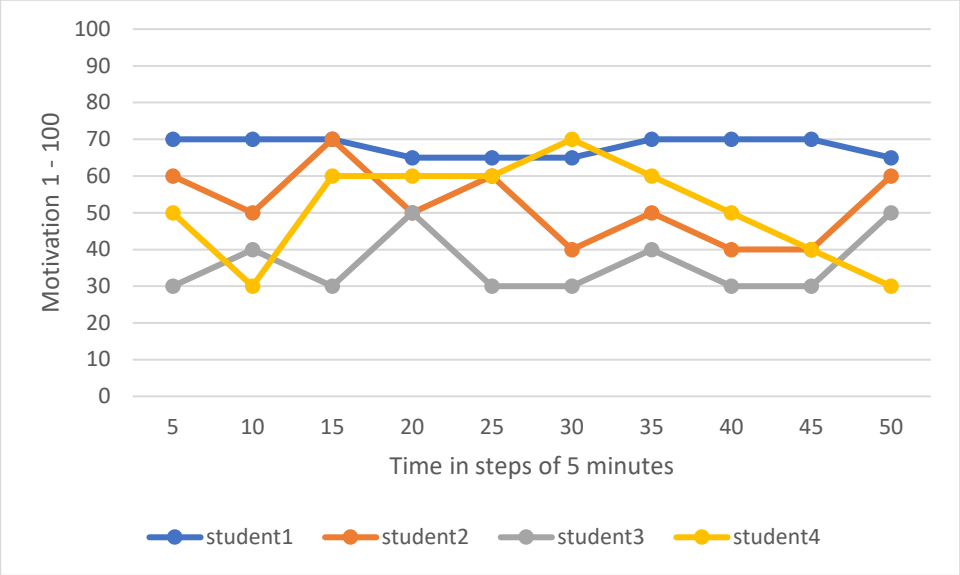


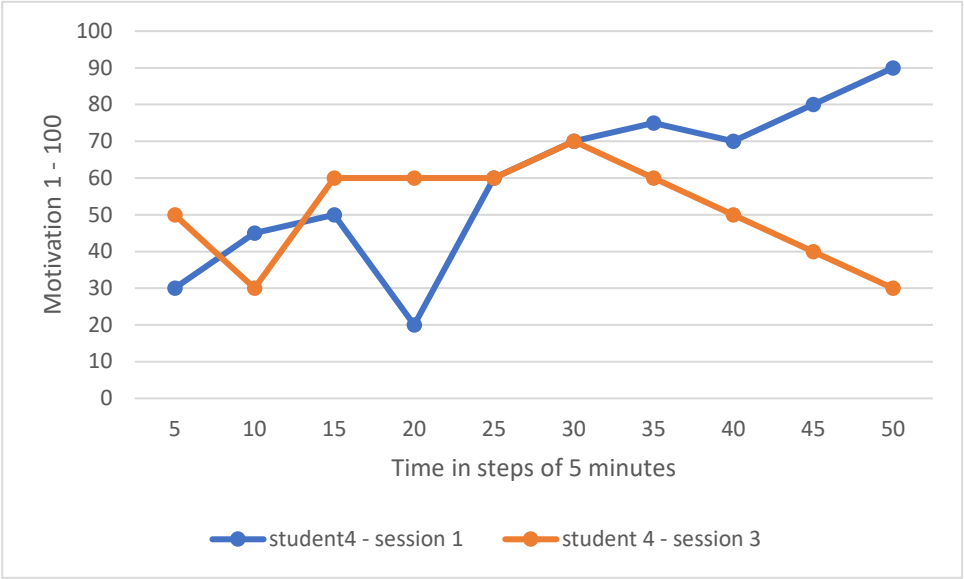
Figure 10. Motivational development individual progression during Hungarian lesson 3



The group average does not match the individual motivation progression which is in accordance with Waninge et al.'s (2014) and Larsen-Freeman's (2006) results. The variability in these individual motivation progressions can be traced back to contextual factors.

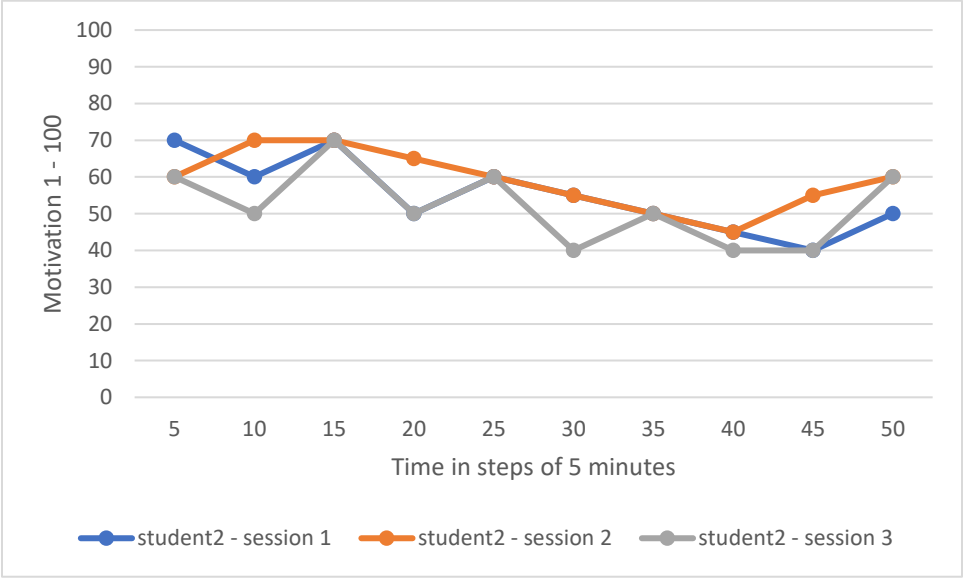
When student 4 could not understand the task, he reported low motivation at 20/100 in the first session, then he gained the highest motivation among participants for that session (see Figure 6), commenting "it was boring a bit and after I knew the task, I really enjoyed it". Student 4 struggled with grammar and gradually lost motivation at minute 30 in the third session as indicated in Figure 11.

Figure 11. Student 4 motivational development progression in session 1 and session 3



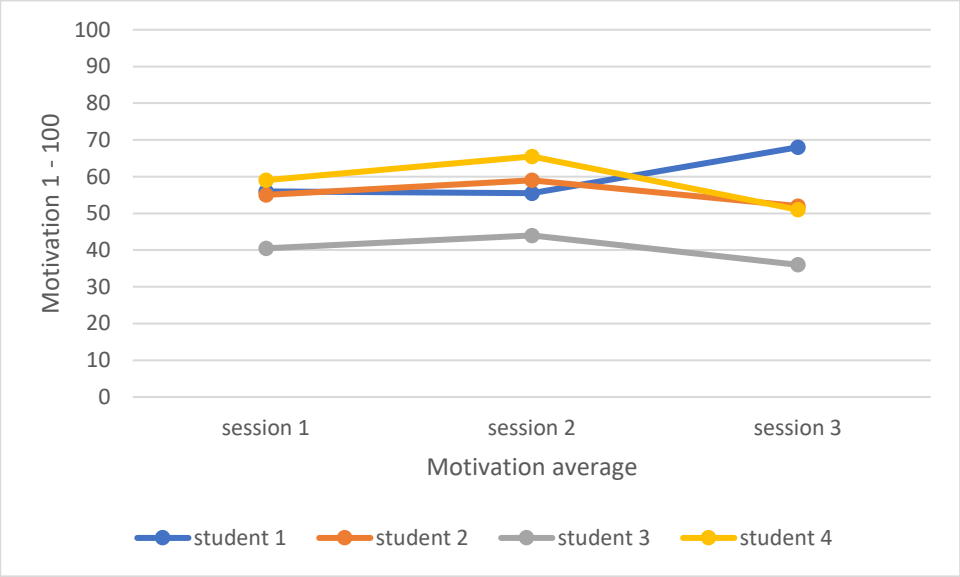
Another instance regarding contextual influence, student 2 always reports a low motivation after minute 20, which is always during the group work activities. His motivation showed variability when his classmates replied correctly, and he was not allowed enough time to think about the answers, commenting "it's hard to understand all because some other people can understand fast and answer the question" (see Figure 12).

Figure 12. Student 2 motivational development progression in all the sessions



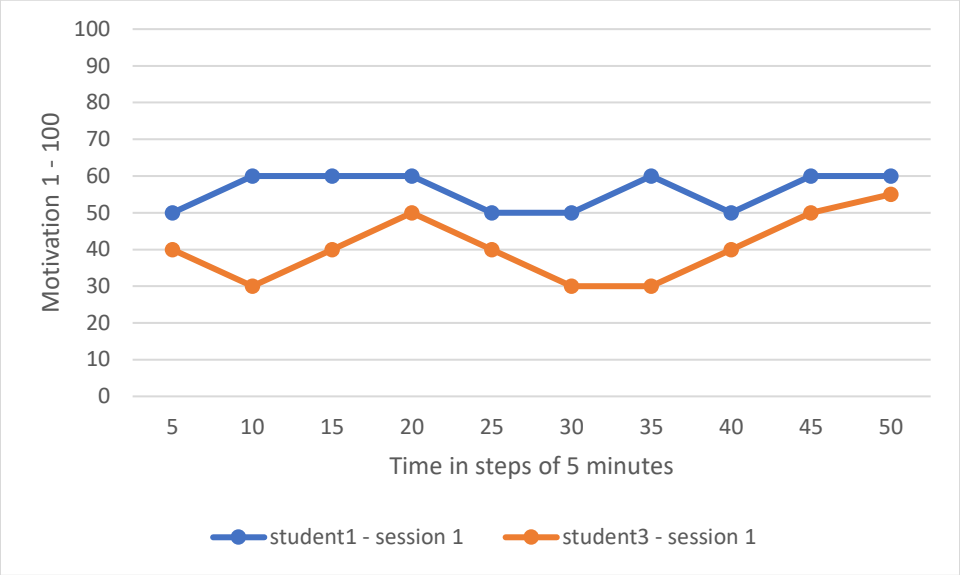
Challenging the students' learning pace may reduce their learning enjoyment which can be an attractor, causing motivation fluctuation, if repeated too often. Student 3's motivational state in class is the lowest among the participants (see Figure 13), on average reporting a moderate low 40.5/100 then a slight increase on average 44/100 then a drop to a low 36/100. Student 3 commented that the "teacher going too fast" while "we need more example sentences on how to use the word", recommending to his teacher to "have more exercise about specific topic that we learn on the session before moving to the new topic." Student 3's motivation dropped if he felt the teacher was progressing in the lesson too fast without enough practice, which is fully predictable.

Figure 13. Motivational development average for individual progress throughout the Hungarian course sessions



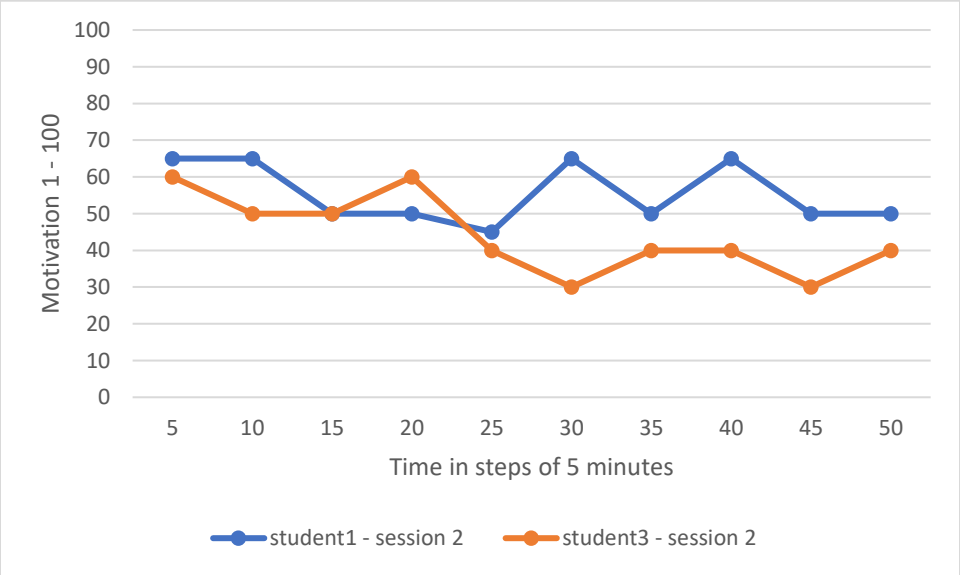
Interestingly, student 1 and student 3 show a similar motivational pattern despite the overall motivational range difference. Every time the teacher skipped practice and moved on to the next lesson in the same session, their response reflected a negative impact. In fact, both students reported that "teacher going too fast" and "fast speaking could distract the learning process for some students." Although Figure 14 shows similar motivational fluctuation pattern and predictable reaction to such attractor, motivational variability is nonlinear and more complex than that.

Figure 14. Student 1 and student 3 motivational development progression in session 1



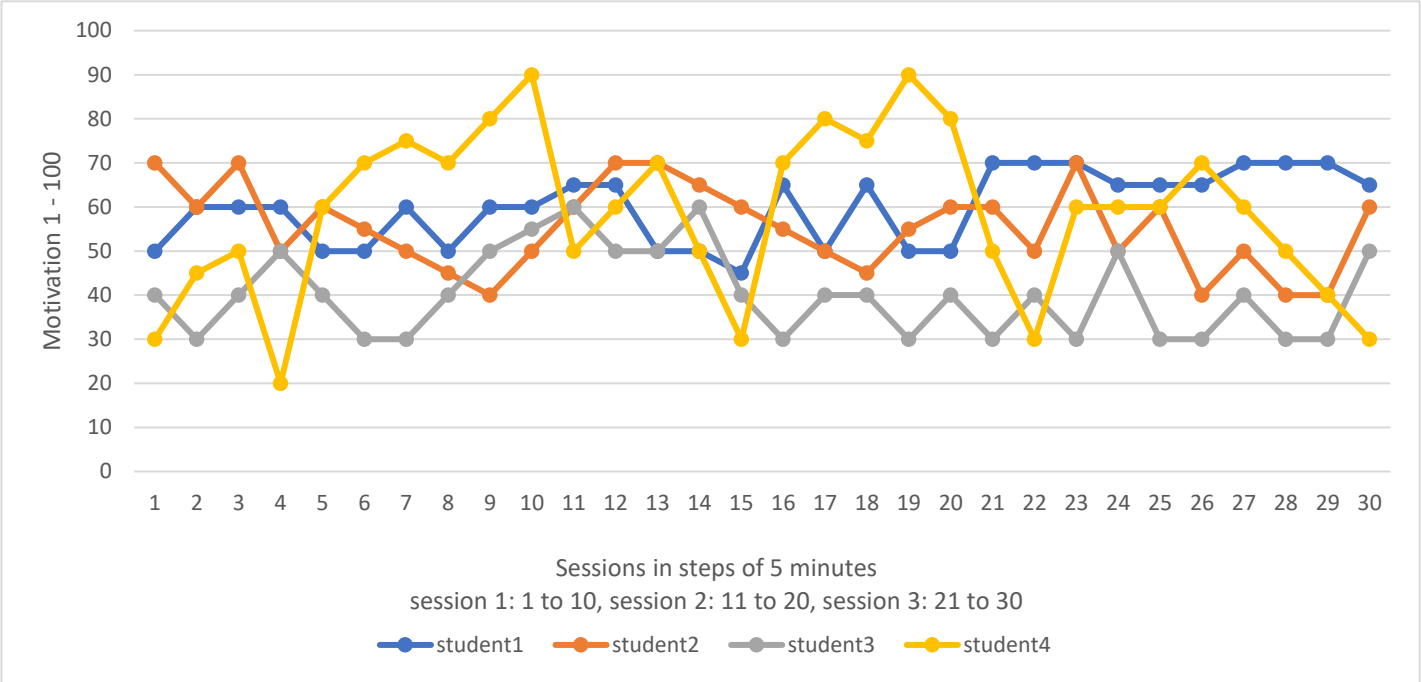
Waninge et al. (2014) conclude that students with similar motivational patterns in one lesson can have an opposite outcome in the next one. An example of this can be seen in Figures 14 and 15, which compare student 1 and student 3 in two consecutive sessions.

Figure 15. Student 1 and student 3 motivational development progression in session 2



Finally, within participant variation can be seen if the motivational development progression were placed side by side on the individual level throughout the sessions, in addition to variation among participants. Figure 16 illustrates participants' motivational change; while the dominant pattern is moderate with gradual increase or decrease in motivation, student 4's pattern deviated showing among participants variation. Even within participant variation is visible considerably in the latter.

Figure 16. Participants motivational development progression throughout all sessions

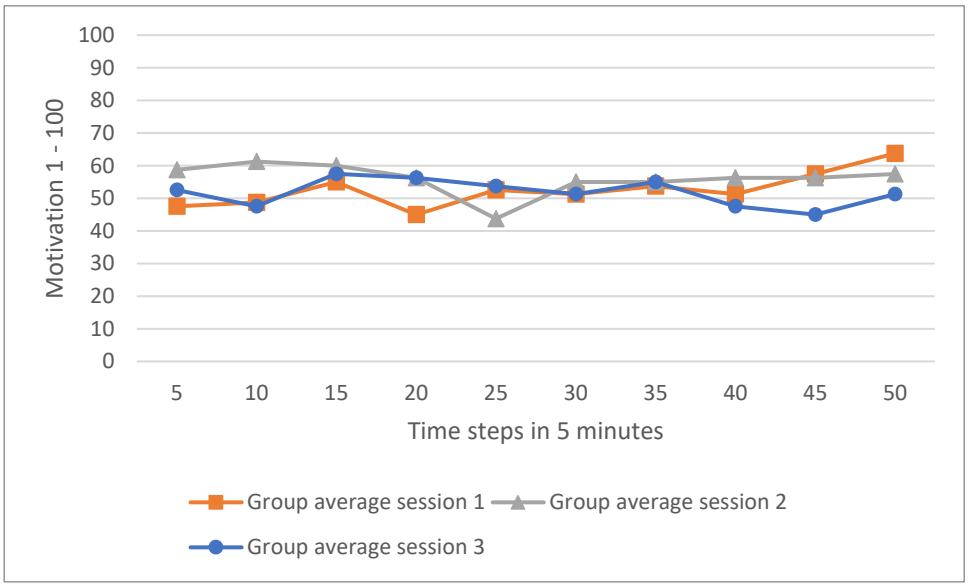


4.2.4. Stability

Sometimes the pattern is common and uniform among participants which is consistent with the group average trend. The influence of a strong attractor was demonstrated in a common motivational change among the participants, which coincides with the DST principles. Observing the contextual information shows a shared commonality within the same session between the group average motivational development and individual progression: During the consolidation task and homework correction, students' motivation similarly spiked in Minute 15 (see figure 17) resulting in increased motivation, which was also mentioned in student 4's comment "it was boring a bit and

after I knew the task, I really enjoyed it". Even on the individual level this reaction can be perceived in an increase of motivation.

Figure 17. Hungarian lessons 1, 2 and 3, group average of motivational progression



Considering the contextual information, the preceding and succeeding motivational progress (Waninge et al., 2014), the relationship between stable and variable phases can be clarified: participants experienced unpredictable motivational states, with the increasing trajectory for some of them and declining trends at times, until the grammar exercise, for instance, which functioned as a strong attractor and unified their declining trajectory. Motivational development variation preceded and succeeded this attractor regulation. Despite the high overall motivation for some participants, they still experience motivational variation that sometimes depends on the teacher, who plays a salient classroom role. The participants commonly commented on the teacher's progress pace and lack of in-class practice and use of blackboard.

4.2.5. Context

In terms of revealing factors that influenced motivational variability, we relied on contextual information both the general activity and episodic incidents (see Figure 4). Students' comments about the language course and the teacher were also taken into consideration and may have helped as qualitative justification. The initial low motivation can be due to the state in which students came in the session from the previous courses. As mentioned earlier, some of the students are late

due to their subjects' schedule and overwhelming day, which shows in their initial motivation. This can be considered a factor for some students' motivation state, which is not often shared.

Chapter 5. Discussion

5.1. Macro study discussion

Research on motivation should encompass a variety of motivation concepts and motives with different regulatory orientations. Following the previous theoretical developments, we adapted some components of the self-guides to study the relation, covariance, and correlation. The use of self-guide measures is promoted as the best way to study motivated learning strategies, though as common as it is, the constructs' content varies depending on individuals and contexts. In other words, the individual differences extend to self-guides' perception.

Higgins (1987) explained the contrast between the 'own' personal and the 'other' dimensions. In the L2MSS, the ideal L2 self has been attributed a personal dimension 'own', and the ought-to L2 self an 'other' dimension. These aspects of self-guides, which are others for ideal L2 self and ought to self-own, are taken into consideration as suggested by Teimouri (2017) and Papi et al. (2018). Ideal L2 self and ought-to L2 self were divided into both own and other perspectives. However, the operationalization of ought to L2 self included both promotion and prevention items because the regulatory distinction were not considered. Ought to L2 self in this study was omitted because it did not load properly and had lower internal consistency coefficient. The ought to L2 self-guide must be developed with exclusively prevention regulatory focus with sensitivity to negative outcomes.

Our confirmatory factor analysis findings support the choices and strategies of the procedure. The model fit analysis determined that this questionnaire was a perfect fit for our sampling population. The findings support our adaptation of the 2x2 model from Papi et al. (2018), which includes ideal L2 self-own/other and excludes the ought to L2 self. Ideal L2 self-own/other emerged as the guides with the strongest internal consistency coefficient and the most correlating manifested variables that share high covariance.

In this study it was found that motivated behavior has the highest reliability coefficient and positively correlates with both self-guides. Along with predicting the variance in motivated learning behavior, the Ideal self-own correlates with the individual's own constructs and self-refinement (Ushioda, 2001), such as their linguistic self-confidence, while the Ideal self-other is closely related to the attitude toward teacher given their influential role on the learning process.

Dörnyei (2005), and Dörnyei and Ushioda (2011) define the Ideal L2 self as students' visualization of themselves in the target language and that the learning experience including the attitudes toward the learning environment, which is in consistency with our results. The Ideal self-guides (Ideal self-own and other) also share a positive and a strong correlation with the attitude toward the community, the course, and the teacher.

To answer the first research question, motivation, anxiety, and attitude are in correlation throughout the learning process. The findings highlighted the influence of anxiety and attitude on motivation, and vice-versa. While the questionnaire items are either answered 'slightly disagree' or 'slightly agree' on average, the attitude toward the language teacher was roughly near 'agree' which is significant based on our sample size. While the desired self-guides emerged as a strong predictor of the motivated behavior and the attitude toward the teacher, the language proficiency/skill in Hungarian has the highest significant relation with most of the questionnaire items including the attitudes. Participants report 24 other contexts where their Hungarian language skill and proficiency are important, which justifies this emergence. This is in accordance with Dörnyei and Chan's (2013) findings that the Ideal self may also be influenced by exposure to instructional material and experience of the language. The attitude toward the course emerged as a stronger predictor to the attitude toward the community variance, than the desired self-guides, presenting a strong latent variables covariance based on the confirmatory factor analysis.

Language anxiety seems to be associated with the desired self-guides (Ideal self-own and other), the linguistic self-confidence, and attitude toward the community. Individuals who report language anxiety tend to report low linguistic self-confidence and low desired self in the target language, which affects their motivation (MacIntyre & Serroul, 2015) and perception of their abilities (Dewaele, Petrides & Furnham, 2008; Noels & Clement, 1997). This is in line with Schlenker and Leary's (1985) theory on inadequacy and contradiction in their self-expression. The negative correlation between language anxiety and the attitude toward the community is also in agreement with Gardner and MacIntyre's (1993) findings that the effect of anxiety depends on the social environment and settings. Clément (1980) also notes that this complex structure combines anxiety, self-perception of ability, attitude, and motivation. However, there is no direct correlation between language anxiety and motivated behavior which is in contrast with Gardner's and MacIntyre's (1993) notion of reciprocal pathway between these latent variables.

However, in contrast to the previous L2MSS studies where Papi et al. (2018) found that Ideal L2 self-own emerged as a strong predictor for motivated behavior, Ideal L2 self-other is closely more related to motivated behavior in this study. In accordance with the same study, both Ideal self-guides are in positively high covariance and correlation. Sato and Lara's (2019) results seem to demonstrate that the ideal L2 self goes in harmony with the self-system, influenced by contextual factors. In this study, ought L2 self-own/other questions present low internal consistency coefficient and reliability which is in agreement with previous empirical findings (e.g., Csizér & Kormos, 2009; Kormos & Csizér, 2008; Lamb, 2012; Moskovsky et al., 2016; Papi, 2010; Papi & Teimouri, 2012, 2014; Ryan, 2009; Taguchi et al., 2009; Teimouri, 2017). In Higgins's study (1987, 1997) the ought self-guides emerged as major motivators. Nonetheless, the present study does not suggest the ought L2 self-guide as a dependable self-guide. This is due to the formulation of the ought to L2 self-guides questions, wherein the ought to L2 self-own questions were formulated with negative consequences (e.g., "If I don't work on my Hungarian, I will fail in university) which excluded learners' positive consequences. Whereas ought to L2 self-other emerged as weaker predictors which is supported by Deci's and Ryan's (1985) self-determination theory that favors the most-internalized motives.

The results confirmed the possibility that the L2MSS could account for language learning motivation and the interplay of cognitive and affective variables. The present study also explored the study abroad SA experience on international students in Hungary under the framework of the L2 Motivational Self System. Allen and Herron (2003) claimed that students in the SA context would cope with language anxiety, which was not the case in our study as the participants reported anxiety and there was not any significant difference between them. The findings also revealed that the SA experience greatly helped Hungarian language learners consolidate the reliability of their learning motivation: The ideal L2 self (own and other), linguistic self-confidence, and attitude were impetus for motivated behavior.

5.2. Micro study discussion

Language development occurs on a variety of interacting time scales, from decades of life to milliseconds of brain activity. These time scales interact, so representing phenomena on one time scale can lead to erroneous results (de Bot, 2015). Investigating phenomena on multiple time scales, such as decades, milliseconds, or innumerable scales in between, provides a broader view of the myriad effects on the system in context (MacIntyre, 2012). Answering the research question

regarding variability in students' in-class motivation, the findings confirm motivation variation even on a short timescale. Within the span of a 50-minute session, we observed shifts in motivational levels and variation in individual learners' development, confirming Larsen–Freeman's (2006) notes. The average group data did not show variation as the individual variation did, which was also inconsistent with the individual trends. As Waninge et al. (2014) concluded, although the group average may show a steady increase or decrease, there is a different motivation trend on the individual level.

The composite chart (Figure 4) illustrated the instances when participants reacted similarly. Certain behaviors were due to some contextual factors: the noisy group work, teacher's open criticism to students' answers, and difficult grammar exercises caused a significant drop in all students' motivation levels. Concerning stable levels and attractor states research question, a stable level of overall motivation was observed within a span of a week. We also observed regulating influence for some students that had to do with their attitudes toward the teacher and the language, which resulted in a matching engagement level in classroom activities. The system trajectory was dependent on students' attitude and system's initial condition. A relevant example is the case of student 1 who experienced discouraging incidents in session 3, yet reported a stable motivational trajectory, which could be justified by her initial motivational level with which she attended that session. Considering the importance of initial level of motivation, it is recommended to invest in engaging warm up activities at the beginning of the session, which was not addressed by the teacher in this study.

Sometimes certain context and classroom episodic incidents may influence certain reactions. These instances clarify the link between context and system behavior which confirms the fundamental DST construct of context and its relevance to the overall system. Student did not react proportionately to the same regulating forces, which shows the nonlinearity in system behavior and goes with DST principles.

To answer the second research question, variability (group level) and variation (individual level) were confirmed in the fluctuating motivational behavior throughout the sessions. Also, the system tends to show stability upon an interaction with an attractor state. The quantitative data indicated a significant level of individual heterogeneity in the motivational development of the four individuals. Each participant's motivational development demonstrated variability (change) and periods of stability during the duration of the observations. Furthermore, when compared to the

group average motivation development, several of the individual motivational development patterns exhibited surprisingly divergent findings, which answers our third research question. Variability and variation are characterized by dynamic interaction, change, and stability. This is in line with dynamic system theory, which emphasizes the individual since data at the group level can be deceptive.

To answer the fourth research question, context influenced change, variability, and stability in this study. The qualitative data revealed that context was associated with the quantitative data fluctuations. The contextual information, on the other hand, revealed that the individuals' motivational systems were unique and evolved in their own way, with the same input producing completely distinct motivational development for each participant. In most circumstances, internal and external factors can be used to identify distinct system advances.

When compared to Waninge et al. (2014)'s findings, in-class motivation appears to be a dynamic system. Individual differences in motivational development were demonstrated in system behavior in relation to the interconnected nature of context, implying the necessity to study motivation at the individual level and to consider context in the interacting system, as Larsen-Freeman (2006). Findings suggest that motivation studies on a group perspective does not reflect individual variations in motivated development and may be deceptive.

Considering motivation as a dynamic system implies that the related factors are not static in a dynamic system over time, and that they are in constant interaction with each other and their context (Larsen-Freeman, 2009). Context was also previously considered a factor as it is inextricably linked to the system and its behavior in a dynamic system.

The results for the first research question are likewise consistent with those of MacIntyre and Serroul (2015), who observed comparable motivational shifts, however their instruments were similar to the current study, as previously indicated. On another note, Yaghoubinejad et al. (2016) found a similar level of diversity in learning motivation.

Campbell and Storch (2011) explored motivational swings over the course of a semester at an Australian institution at the turn of the century. According to their findings, learning environment characteristics were the most critical variables that had a positive and negative influence on motivation. Azarnoosh et al. (2015) looked at the longer-term changes in student motivation. Other elements such as learners' age groups, learning environments, and socio-cultural background were also considered by the researchers in producing diverse motivating patterns. MacIntyre and

Serroul's (2015) study is more comparable to the current study's objectives as their research also looked at motivational shifts during performance. They investigated the potential changes in task motivation based on approach-avoidance evaluations using a range of tools. The results revealed that participants' motivation assessments were highly variable. The findings demonstrated that motivation may be influenced by a variety of factors, including instructional emphasis, learners' dispositions on a given day, group dynamics, the teacher's motivational state, and a variety of contextual variables, such as the day of the week and class schedule.

5.3. General discussion

It is natural that student motivation fluctuated in a matter of minutes. Nevertheless, the questionnaire shows that students have no aversion to the language they are studying. Additionally, most of our participants are in contact with Hungarian native speakers daily and at least a third have a Hungarian significant other or are looking for Hungarian partners. Considering their exposure to the language, one would expect that the majority declare that they express themselves without difficulty in Hungarian as they practice assiduously every day. There were not well-defined linguistic objectives expressed in the questionnaire as we presumed a general future goal unifying all the participants which is achieving native-like level in Hungarian. If the objective is not far-fetched, the learners regain confidence in their ability to learn and to progress. Their linguistic self-confidence is the sine qua non for this progress.

The questionnaire also revealed that international students watch Hungarian films and read little in Hungarian. Most of them realize that a language is best acquired through frequent attendance and opt in for any type of exchange that allows interaction in Hungarian. Students are offered a rich linguistic learning environment, which involves spontaneous input and linguistic variety. Most students have a positive attitude, according to the survey responses. The findings also reveal that linguistic self-confidence and proficiency level are important to maintain a positive attitude and motivation. It seems from the survey responses that student status, whether they are a scholarship holder with obligation to achieve a certain proficiency level or self-paid, affects their motivated behavior and their ideal self from others' perspective. To support this argument, scholarship holders in English programs must enroll in a mandatory Hungarian course and their scholarship allowance amount conditionally depends on their proficiency level in Hungarian. The survey shows

that although students realize they are responsible for their own learning, they find that it is their teacher's role to make teaching motivating.

Regarding the L2MSS as a tool to explore the motivational profiles of international students enrolled in Hungarian language courses, all factors produced by confirmatory factor analysis yield either acceptable or very acceptable reliabilities. The Likert scaled questions successfully quantified the motivational aspects, and in comparison, with the theoretical item-grouping, the findings have similar reliabilities to previous studies. This supports the applicability of the L2MSS in this context.

Chapter 6. Conclusion

6.1. Macro study conclusion

The L2MSS has been a prominent theory in L2 motivation research, replacing Gardner's (1985) and Gardner and Lambert's (1972) theoretical frameworks and placing learners' selves at the center of L2 motivation. The present study took into consideration Higgins' self-discrepancy theory (1987), Dörnyei's L2MSS (2005, 2009), and Papi et al.'s 2 x 2 model (2018), with the ideal L2 and ought-to L2 selves split between 'own' and 'other' perspectives. The results validated the proposed questionnaire and supported some of the claims and assumptions in previous empirical studies, which have been extensively researched over the past decade in L2 motivation.

This study findings may contribute to our understanding of how language learning motivation works in a study-abroad context. Language learners abroad are motivated by motives that match their own regulatory focus and motivational strategy. A large variety of differences in regulatory orientations and strategies should be addressed in future research on self-regulation. This study joins the L2 motivation research to employ descriptive studies in motivational interventions to understand cognitive and learning processes, following Han and McDonough's (2017) suggestions to bring research on motivation and second language acquisition together.

Ought to self-own and other were excluded after the pilot study due to their weak internal consistency coefficient along with a questionnaire item from the linguistic self-confidence. The definitive questionnaire includes Ideal self-other which emerged as the strong predictor to motivated behavior variance and Ideal self-own which emerged as a self-refinement for linguistic self-confidence. Motivated behavior and attitudes seem to correlate with both Ideal self-own and other which are also in covariance. As expected, the findings suggest the negative effect of language anxiety on attitudes, Ideal self-guides, linguistic self-confidence, and motivated behavior.

An individual who reports lower language anxiety, high self-refinement and motivated behavior, positive attitudes to community, language, and teacher, tends to interact more with the Hungarian locals in the stores, public facilities, and universities. Consequently, learners who report high Ideal selves are most likely linguistically self-confident and exhibit a motivated behavior which encourages them to be exposed to Hungarian outside their classrooms and to have a positive

attitude toward the community, the Hungarian language, and their teachers. Surprisingly, the duration of stay was not an influencing factor in this study.

To conclude the qualitative results, participants in this study reported rare interaction with their Hungarian friends, and any content (written or on the media) in Hungarian, and specific use of Hungarian in certain situations, which they rated in their exposure frequency as 'sometimes.' We generated the theme topics in the result section from the qualitative answers that we collected in the questionnaire. Participants report speaking Hungarian mostly in social interaction with their colleagues, friends, or professors, also in public means of transport and at grocery stores.

Males and females visualize their Ideal self in the target language from the perspective of the others differently. Additionally, their attitudes toward the community and the language course also differ. Males and females experience anxiety and motivated behavior differently, and report different linguistic self-confidence. Although males and females share relatively the same attitude toward the Hungarian teacher, there is variability of responses between students from all the academic levels.

The findings based on the university and student status also show variability. On the one hand, Students from big universities report higher linguistics self-confidence and motivated behavior than students from smaller higher institutions. Moreover, they view their Ideal Self from the perspective of others differently. On the other hand, Stipendium Hungaricum scholarship holders enrolled in English programs and self-financed students tend to disagree more with motivated behavior statements than those enrolled in Hungarian programs.

The language proficiency in Hungarian is also an influencing factor. Students of varying proficiency levels have different motivation (Ideal self and motivated behavior) and attitudes. However, they all experience language learning anxiety similarly. Additionally, there was no difference between the responses based on the duration of stay.

6.2. Micro study conclusion

The portrait that we draw from this classroom motivation micro-study is a composition of dynamic stability, governed by attractor states, and individual variability. Some situational incidents may cause variability, which is also governed by nonlinearity and may impact behaviors differently. While this may seem complicated, language teachers understand the dynamic aspect of a classroom between chaos and order.

There are attractor states in motivation, generated by push and pull forces in a classroom, that teachers should consider. The findings support the claims that in-class motivation cannot be viewed as a stable trait, given the variation detected on individual learners regardless of the overall high or low motivational level, which coincides with DST principle of change. The participants in this study became unmotivated when they felt the teacher moved "too fast" in the lesson and skipped grammar explanations, while some of them gained motivation when the teacher used the blackboard and explained the task. The motivational variability may trace students' overall in-class motivation.

As previously noted, research into the dynamic nature of motivation is very limited, with mixed results. The phenomenon has been viewed as a stable idea in most motivation-oriented research to date. Although Waninge et al. (2014) recommended a small-scale study for classroom dynamic motivation research, a larger sample during more frequent sessions would provide more accurate overview of classroom system behavior and possible attractor states. Participants in this study were selected 11 weeks after their first session during a course schedule that allowed them to freely join anytime. Committed students would present higher meta-motivational awareness to regulate the episodic incidents. A second observation would have resulted into richer analysis to avoid the questionable reliability of the same researcher managing the data collection and analysis. Although we faced limitations and challenges to administer these tests, we traced the motivational variation for each participant and identified the DST principles in our analysis as an attempt to model the behavior of dynamic systems.

6.3. General conclusion

As we have emphasized the anonymity of the study for the students, we believe that they too felt comfortable and could express themselves freely. We have the impression that the results we obtained by analyzing the responses to survey questions are relatively dependable. One of the aims of this thesis was to examine the different motivations existing in language learners, and the factors that motivate students. It is also evident that a high motivation corresponds to a prominent level of activity outside the classroom. In fact, we understood that students do not see motivation as constant, but surely as an essential element. In conclusion, we have answered our research questions, but this research can expand for each item-group to become a research question. Finally, what it is particularly important to underline is that no sign of amotivation appeared in our research.

6.4. Pedagogical and scientific implications

Learners' ideal selves should be integrated into language lessons. The quantitative results show a correlation between the ideal self and the other learning factors. For these reasons, a linguistic assessment may be completed with a self-assessment questionnaire to have a complete image of the learners' ideal and current selves. Teachers may consider the situations in which learners use Hungarian, to develop the course based on learners' specific use. International students who are enrolled in Hungarian language courses may diversify their language use outside the classroom to use Hungarian more often and improve their proficiency levels. Consequently, teachers can also include situational communication in the classroom to familiarize their students with different contexts. Learning abroad is a great opportunity for language learners to practice their languages with native speakers.

The most important aspects of individual differences that play the key role in language learning are generally cognitive and affective factors. Cognitive aspects include aptitude and intelligence, while motivation, anxiety, and attitude represent affective factors. Most supporters of the communicative approach no longer consider the language learning as a recipient of distilled knowledge. Learning takes place within the individual and is likely to be influenced by that individual. By placing the learner in heart of learning, it is necessary to understand the motivation and the influencing factors. In addition, learning does not only take place in the classroom and the teacher may consider the learners' prior knowledge and representations as well as their attitudes towards the language taught, the teacher and native speakers of this language.

Much of the research on motivation and foreign languages is about learning English and in the context of second language learning. To have a better understanding of the different motivational processes that accompany foreign language learning, it is important to experiment with different languages other than English in different contexts.

6.5 Limitation of the study and suggestions for future research

This study has methodological and theoretical limits from which we outline suggestions for future research to be implemented to explore this context and enrich our work. The sample size constitutes, on several levels, a limit to our research. With a larger sample size and a more

homogeneous distribution between universities and study programs, we could have conducted an in-depth analysis based on these factors. The use of a longitudinal protocol to explore the duration of stay effect on responses would make it possible to explore the evolutionary nature of the motivational process. It would be interesting to collect responses before the enrollment, during the semester and at the end of the course.

Although our responses were collected from 21 Hungarian universities, there are 65 higher education institutions in Hungary, each with specific characteristics in terms of city location, population, university prestige, etc. Thus, it is appropriate to be cautious about the generalization of our results. Replication of our study in the same context with a larger sample size would allow us to fully validate the study framework and establish external validity. The implementation of this questionnaire model is possible in other contexts as well.

The results consider the multitude of variables and contribute to their explanation, based on the sample size considered. We implemented a methodology essentially of quantitative measurement. A complementary qualitative part would have been instructive to understand the variance in the responses. Questionnaires analysis is oriented towards variables and not towards participants and that makes it impossible to investigate the complex intertwining dimensions in the same individual.

As already pointed out, other factors could have been incorporated for the bigger picture, such as the established relationship with teacher and colleagues, the learners' compatibility with the teaching method, etc. In this study, we chose L2MSS as a major pillar because the literature recommends it, and among the other factors that are introduced the Ideal self emerged with a high internal consistency and a strong correlation with most of the variables.

This study demonstrates that future research in this context is required for a definitive understanding of the motivational process. Above all, the language proficiency has proven to be essential and must be further examined. Developing the linguistic self-confidence of language learning could be useful for teachers and they should aim to encourage this orientation. Moreover, the motivation in learning Hungarian is a promising research area. The macro-study showed us that there are several interesting points which can be implemented. For example, many participants report an end goal to learning Hungarian other than achieving a native-like proficiency. Future studies would have remarkable benefits for research in learning Hungarian.

The questionnaire is still online to collect larger sample size for further investigation. A complete clarification of these interrelationships is a prerequisite. Moreover, the reasons of learning

Hungarian can be used as a point of reference for more specific research. We are convinced that exploring the reasons in relation with the motivational factors we listed could produce an approach to understand why and how international students learn Hungarian.

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APPENDICES

Appendix 1.

Classroom activities throughout the sessions.

Table 17. *Classroom activities throughout Hungarian lessons*

Sessions	Classroom activities
Session 1 50 minutes	Homework correction: allocative determinate Consolidation tasks Activity from the exercise book Dealing with surfaces and places Reading activity accompanied with class work to answer the reading comprehension part Grammatical rules explanation Indefinite articles
Session 2 50 minutes	Homework correction: time Consolidation tasks Reading task and meaning discussion from the textbook Turn-taking to read aloud Vocabulary and ending form consolidation Grammar activities from the exercise book: verbs and pronouns
Session 3 50 minutes	Homework correction: verb ending Reading activity while underlining verbs Board explanation: subject verb agreement Consolidation task Conversation activity: pair work, questions, and answers

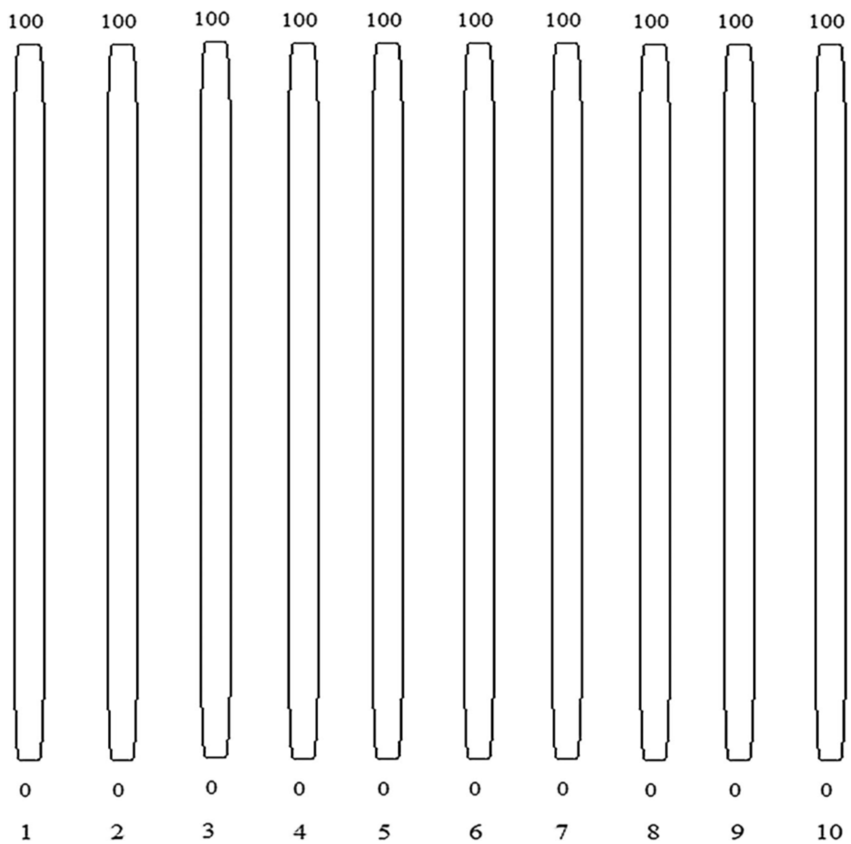
Appendix 2.

Waninge et al. (2014)

Motometer

Rate your motivation, considering

- How much effort do I want to put into learning the material right now?
- How much do I enjoy this lesson right now?



Comments:
… …
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… …

CANDIDATE'S DECLARATION

Undersigned ...Alaeddine Khelifa.... I declare that this dissertation has been prepared at the Institute for Hungarian and Applied Linguistics at the University of Pannonia in order to get the Doctorate of Multilingualism.

Furthermore, I confirm that this dissertation and the work presented in it are my own and have been generated by me as the result of my own original research.

I am aware of the fact that the Department that announced the topic can use my results freely.

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Undersigned ..... and ..... as supervisors, we declare the PhD dissertation of .....Alaeddine Khelifa..... has been prepared at the Institute for Hungarian and Applied Linguistics in order to gain the qualification of a Doctorate of Multilingualism.

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