

MASTERARBEIT | MASTER'S THESIS

Titel | Title

Enhancing Austrian lower-secondary students' fluency through
the 4/3/2 activity. An action research project.

verfasst von | submitted by
Toni Grgić BEd

angestrebter akademischer Grad | in partial fulfilment of the requirements for the degree of
Master of Education (MEd)

Wien | Vienna, 2025

Studienkennzahl lt. Studienblatt | Degree
programme code as it appears on the
student record sheet:

UA 199 507 520 02

Studienrichtung lt. Studienblatt | Degree
programme as it appears on the student
record sheet:

Masterstudium Lehramt Sek (AB) Unterrichtsfach
Englisch Unterrichtsfach Mathematik

Betreut von | Supervisor:

Mag. Dr. Karin Richter

Acknowledgements

First and foremost, I would like to express my heartfelt gratitude to my supervisor, Karin. She has been an exceptional mentor and an inspiring role model since my very first steps in the English Department back in 2017. Her invaluable guidance has not only taught me how to write academic texts but also helped me refine my speaking and presentation skills in her courses. Karin has supported me throughout my teaching journey, whether by inviting me as a guest speaker in her courses or assisting with my Fulbright exchange year in the US. Thank you, Karin, for your kindness, dedication and encouragement. I am deeply grateful for everything you have done.

I would also like to extend my sincere thanks to my dear colleagues, Ulrike Steinmann, Sylvia Huber and Margaretha Stephan, who have played an integral role in the success of this action research project. Your valuable help and contributions have been truly appreciated.

I am also deeply grateful to my students, whose enthusiasm and willingness to participate in this study have been essential to its success.

Finally, I would like to thank my family and friends for their unwavering support and encouragement throughout this entire journey.

Abstract

Numerous studies in second language (L2) research have demonstrated the effectiveness of the 4/3/2 activity—a speaking task in which learners deliver three consecutive monologues of 4, 3, and 2 minutes, respectively—in enhancing oral fluency. However, its application in German-speaking lower-secondary contexts remains underexplored. To address this gap, this action research project investigates the impact of the 4/3/2 activity on the fluency development of 49 Austrian lower-secondary English as a Foreign Language (EFL) learners—a group that has received limited attention in existing research. The aim of this project is to implement the 4/3/2 activity as a short-term intervention in an Austrian EFL classroom, evaluate students' fluency improvements after the intervention, explore their perceptions of the activity, and identify challenges encountered during its classroom implementation. To this end, a mixed-method approach was adopted: to measure fluency gains, audio recordings of student performances were collected and analysed using the speech analysis software PRAAT; students' perceptions were obtained through an online questionnaire, while collaborative observations provided valuable insights into the challenges faced during the activity. The findings reveal significant fluency improvements, including faster speech rates, enhanced phonation-time ratios and fewer filled pauses. Questionnaire responses further show that most students view the activity as beneficial for improving their speaking skills and building their confidence in speaking English. However, some expressed dissatisfaction with the repetitive nature of the activity and the pairing of conversation partners. Collaborative observations provide additional context and reveal that the main challenges were waning motivation due to task repetition and difficulties with partner dynamics. This highlights the importance of addressing both social and individual factors when implementing the 4/3/2 activity with young EFL learners. Overall, the study underscores the activity's potential to enhance fluency in lower-secondary EFL classrooms and provides practical recommendations for addressing implementation challenges.

Table of contents

Acknowledgements	i
Abstract.....	iii
List of abbreviations.....	vi
List of figures.....	vi
List of tables	vi
 1. Introduction	 1
Part I	4
2. Defining oral fluency.....	4
2.1. Segalowitz's framework of fluency	5
2.2. Goetz's framework of fluency	8
3. Fluency development: cognitive insights and practical applications	11
3.1. Skills and strategies involved in speaking	11
3.2. Linguistic knowledge involved in speaking	15
4. Teaching speaking and fluency.....	17
4.1. Challenges in teaching speaking and fluency in EFL classrooms	17
4.2. Raising awareness of the core aspects of language.....	18
4.3. Appropriation activities: task-repetition.....	19
4.4. Autonomy-building speaking tasks	20
5. The 4/3/2 activity	22
5.1. The practical implementation of the 4/3/2 activity.....	22
5.2. Theoretical foundations of the 4/3/2 activity in second language acquisition	23
5.3. The effectiveness of the 4/3/2 activity	25
6. Variables for measuring utterance fluency in research.....	28
6.1. Measuring oral fluency: An overview of key variables	28
6.2. Measuring the speed of speech	30
6.3. Measuring flow of speech	31
6.4. Measuring fluency with PRAAT	33
Part II:	34
7. The AR project: design, methodology and implementation.....	34
7.1. Research questions	34
7.2. Methodology	35

7.3.	Participants and setting.....	36
7.4.	Data collection process	37
7.5.	Procedure	39
7.5.1.	Pre-intervention.....	40
7.5.2.	Intervention phase.....	46
7.5.3.	Post-intervention	49
7.6.	Data analysis.....	51
7.6.1.	Analysis of audio recordings	51
7.6.2.	Online questionnaire	54
7.6.3.	Collaborative observations	55
8.	Results.....	56
8.1.	Student audio recordings	56
8.1.1.	Speech rate	56
8.1.2.	Phonation-time ratio.....	57
8.1.3.	Number of filled pauses per minute	58
8.2.	Perceptions of the 4/3/2 activity	59
8.2.1.	Evaluating the 4/3/2 activity.....	59
8.2.2.	Self-assessment fluency	64
8.3.	Collaborative observations	66
9.	Discussion.....	69
9.1.	Fluency gains	69
9.2.	Students' perceptions of the intervention.....	70
9.3.	Challenges encountered during the implementation	71
10.	Conclusion and implications for teaching	73
11.	Limitations and future directions	75
12.	Appendix.....	82
12.1.	Consent form	82
12.2.	Speaking prompts	83
12.3.	Handout	87
12.4.	Online questionnaire	88
	Zusammenfassung.....	90

List of abbreviations

AI	artificial intelligence
AR	action research
CEFR	common European framework of reference for languages
CF	cognitive fluency
CLT	communicative language teaching
EFL	English as a foreign language
ELT	English language teaching
ESL	English as a second language
FL	foreign language
FLA	first language acquisition
Fp	filled pauses
IELTS	international English language testing system
iKM	individuelle Kompetenzmessung
L2	second language
MLR	mean length of runs
PF	perceived fluency
PTR	phonation-time ratio
SLA	second language acquisition
TBLT	task-based language teaching
TOEFL	test of English as a foreign language
UF	utterance fluency
WPM	words per minute

List of figures

Figure 1. Segalowitz's framework of fluency	5
Figure 2. The three dimensions of fluency according to Goetz (adapted from Goetz 2013: 8)	8
Figure 3. Levelt's (1989) speech production model (see Tavakoli & Wright 2020: 10)	11
Figure 4. Cyclical AR model based on Kemmis and McTaggart (1988)	35
Figure 5. Procedure of the AR project	39
Figure 6. PRAAT analysis of one sound file	52
Figure 7. Tier 2 in table form	54
Figure 8. Speech rate results (in syllables/min) for the pre-test and post-test	56
Figure 9. Phonation-time ratio (PTR) for the pre-test and post-test	57
Figure 10. Number of filled pauses per min (fp/min) for the pre-test and post-test	58
Figure 11. Results from the Likert scale ratings	60
Figure 12. Most common challenges encountered by students	61
Figure 13. Suggestions for improving the implementation of the 4/3/2 activity	62
Figure 14. Additional comments on the 4/3/2 activity made by students	63
Figure 15. Fluency self-assessment	65
Figure 16. Challenges observed during the 4/3/2 activity	66

List of tables

Table 1. Overview of measures of utterance fluency, based on Zhang et al. (2023: 6) and Skehan (2014: 19)	29
Table 2. Topics of speaking prompts	44

1. Introduction

When learning a foreign language, the primary goal of many foreign language (FL) learners is to become fluent in the target language (de Jong & Perfetti 2011: 533). This primacy of oral fluency as a central objective, however, is a relatively recent phenomenon in language education as it has long been a deprioritised area in the field of second (L2) and foreign language teaching (Tavakoli & Hunter 2018: 331). Traditionally, language learning focused more on grammatical accuracy, vocabulary acquisition and reading comprehension, while fluency was often seen as a “by-product” of good grammar, pronunciation and vocabulary skills (Thornbury 2022: 218; Richards 2015: 407). It was only with the advent of Communicative Language Teaching (CLT) in the mid-1970s that there was a paradigm shift in language teaching, with a strong emphasis on the teaching of fluency (Thornbury 2022: 219). Today, fluency is a primary objective in foreign language courses and a key criterion in the oral assessments of international language proficiency tests (see Tavakoli & Wright 2020: 103), such as the International English Language Testing System (IELTS) and the Test of English as a Foreign Language (TOEFL).

With the growing emphasis on oral fluency in language teaching, a substantial body of research has focused on developing effective classroom practices to improve learners' fluency (Tavakoli & Hunter 2018: 332). These practices include timed speaking activities, task repetition, opinion-gap activities, the use of lexical chunks and various other practices (see Thornbury 2005). Among these, one particularly promising activity stands out for its significant impact on fluency development: the 4/3/2 activity. This timed speaking activity engages language learners in delivering a monologue for four minutes, then three minutes and finally two minutes, each time with a different listening partner. Numerous studies have investigated the effectiveness of this activity in language classrooms around the world (de Jong & Perfetti 2011; Yang 2014; Tran 2019; Ogawa 2021; Santos & Ramírez-Álvila 2022) and generally conclude that the 4/3/2 activity—when implemented correctly—can significantly enhance learners' fluency.

My personal interest in this activity arises from my experience as a novice English teacher at an Austrian secondary school, where I regularly observe firsthand the challenges my students

face with speaking tasks. In my 4th-grade English classes, I have noticed that many students experience difficulty in producing fluent speech and often feel hesitant to express themselves in English, even though they have a solid grasp of grammar and vocabulary. This disconnect between their linguistic knowledge and speaking abilities has been a concern for me, as I believe that fluency is essential not only for effective communication but also for building confidence in language learners. Through my reading of the literature on fluency development, I have come to recognise the 4/3/2 activity as a particularly effective and easy-to-implement classroom activity for enhancing both learners' fluency and confidence in speaking. That is why I decided to explore this activity in greater depth in this paper and implement it as a short-term intervention in my English classes.

However, my review of the current literature on the 4/3/2 activity reveals significant gaps in research concerning its use within English Language Teaching (ELT). First, much of the existing research has been conducted in English as a Second Language (ESL) contexts, with the results often generalised to learners of English as a Foreign Language (EFL) without adequate validation (Macalister 2024: 30). Second, most studies on the 4/3/2 activity have focused primarily on upper-secondary or tertiary-level learners (see Nation 1989; de Jong and Perfetti 2011; Boers 2014; Yang 2014), which is why its effectiveness with lower-level learners is still unexplored. Lastly, there is a lack of research on the 4/3/2 activity in EFL settings in German-speaking countries, which is why further investigation in this context is needed.

To address these research gaps, this paper examines the 4/3/2 activity as a short-term classroom intervention and its effects on 49 Austrian EFL learners, aged 13 to 14, in grade 4 at a lower-secondary school in Vienna. This intervention is implemented as part of an action research (AR) project for three reasons. First, given my dual role as both the class teacher and researcher, AR is particularly well-suited to this context, as it allows for direct involvement in both the implementation and evaluation of teaching practices. Second, AR can greatly contribute to the academic field by offering practical, classroom-based evidence on the effectiveness of the 4/3/2 activity in a German-speaking, lower-proficiency classroom context. Finally, AR follows a cyclical process of reflection and adjustment, enabling ongoing improvements in teaching strategies and student outcomes (Burns 2010: 33).

This thesis is divided into a theoretical and an empirical part. The theoretical part begins with an introductory chapter that provides an overview of current research on L2 fluency. The next chapter, then, shifts the focus to fluency development, offering insights into the cognitive skills and knowledge involved in fluency development. What follows, is a discussion on L2 fluency instruction, with an emphasis on awareness-raising activities, appropriation exercises and fostering learner autonomy. Chapter 5 is then dedicated to the 4/3/2 activity and examines its theoretical foundations, practical implementation and empirical findings. The theoretical part concludes with an exploration of various parameters for measuring utterance fluency, including the use of the online speech analysis software PRAAT.

Building on the theoretical insights, the second part of the thesis presents the action research (AR) project. It begins by outlining the methodology, research questions, participants and setting, followed by a description of the data collection process, which involves three different datasets: audio recordings, an online questionnaire and collaborative observations. The AR procedure is then detailed, covering the pre-intervention, intervention and post-intervention phases in more detail. This is followed by an explanation of the data analysis processes. The results section addresses the research questions and is followed by a discussion of the findings. Finally, the thesis concludes with a chapter outlining the implications for teaching and reflections on the research, along with a discussion of its limitations and directions for future research.

Part I

2. Defining oral fluency

In everyday discourse, the term fluency is often used synonymously with language proficiency, implying that greater oral fluency corresponds to a higher perception of overall language competence (Chambers 1997: 536). This somewhat ambiguous notion of fluency was addressed and problematised in Lennon's (1990) influential study, in which he sought to establish a more precise concept of fluency. Lennon (1990: 389) distinguished between a broad sense of fluency, i.e. the notion of fluency as a 'cover term for oral proficiency' and a narrow sense, which considers fluency as one aspect of oral proficiency. Other aspects of oral proficiency are lexical range, linguistic accuracy or register. What distinguishes fluency from these other aspects is that it is purely performative in nature whereas the other aspects are part of a speaker's linguistic knowledge (Lennon 1990: 391).

Building on Lennon's (1990) framework, various researchers have sought to describe and define the narrow sense of fluency. Nation and Newton (2009: 151), for example, highlight three key characteristics of oral fluency: a) fluent language use involves real-time processing, enabling learners to engage in meaning-focused activities effortlessly; b) it requires minimal cognitive effort, allowing for a more natural flow of conversation; and c) fluency is a purely performative skill, which means it can be developed and trained (see Lennon 1990: 391, Schmidt 1992: 362). Koponen and Riggensbach (2000: 6) provide a definition of fluency that incorporates these characteristics, describing it as the "ease or automaticity in the learner's speech, manifested in flow, continuity, and smoothness of speech." A similar but more comprehensive definition is provided by Lennon (2000: 26), describing fluency as "the rapid, smooth, accurate, lucid, and efficient translation of thought or communicative intention into language under the temporal constraints of on-line processing".

While these descriptions and definitions have been valuable and well-supported within L2 research, they seem to conceptualise fluency as a simplistic, one-dimensional construct that can be measured on a low-to-high scale (Segalowitz 2010: 51). This perspective is also evident in oral language proficiency assessments. For instance, the assessment scale of the TOEFL

defines a proficient speaker as someone with a “generally well-paced flow (fluidity of expression)” (see [TOEFL iBT speaking rubrics](#)). Similarly, the IELTS speaking band descriptors characterise a proficient speaker as “fluent with only very occasional repetition or self-correction” (see [IELTS speaking band descriptors](#)). However, as will be shown in the following chapters, this simplified view of fluency overlooks its inherently multidimensional nature (Segalowitz 2010: 7), which involves a complex interplay of cognitive, linguistic and nonverbal components.

To better understand this complex and multidimensional nature of oral fluency, researchers have developed various frameworks, notably those by Segalowitz (2010) and Goetz (2013). Both regard fluency as a three-dimensional construct and emphasise its multifaceted nature. While there is considerable overlap between the dimensions proposed by Segalowitz and Goetz, essential differences arise in how these dimensions are defined. The following discussion will explore both frameworks, highlighting their relevance to fluency research and how they inform the present study.

2.1. Segalowitz’s framework of fluency

Fluency, as defined by Segalowitz (2010: 46), comprises three interconnected dimensions: cognitive fluency (CF), utterance fluency (UF) and perceived fluency (PF). Figure 1 illustrates these dimensions and their subcategories. This chapter examines each dimension in more detail, their characteristics and interconnections to provide a better understanding of fluency.

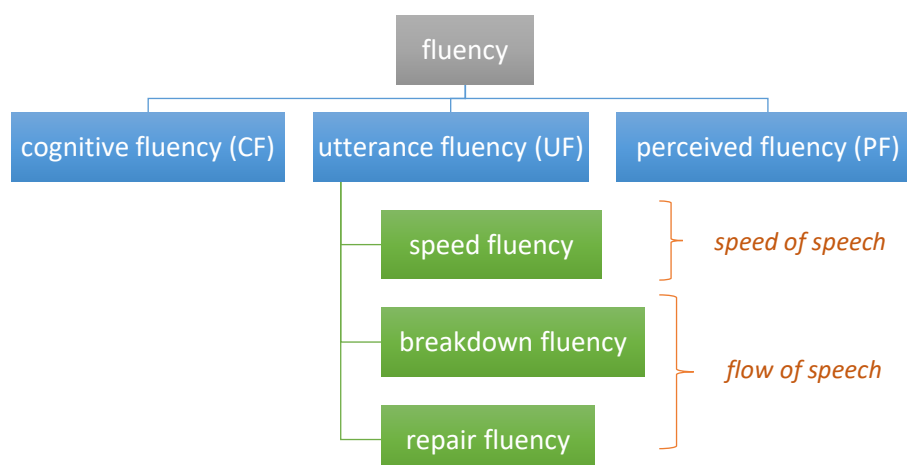


Figure 1 Segalowitz’s framework of fluency

As depicted in Figure 1, the first dimension of fluency is called ‘cognitive fluency (CF)’ and refers to the ability of a speaker “to efficiently mobilize and integrate the underlying cognitive processes responsible for producing utterances” (Segalowitz 2010: 48). These underlying cognitive processes include the planning of an utterance, the appropriate choice of words, the packaging of information in a grammatically correct sentence or articulation (Segalowitz 2010: 48). In other words, cognitive fluency refers to “the speed and efficiency of linguistic encoding processes” (Suzuki & Kormos 2021: 40). All of these encoding processes occur simultaneously and they need to be efficient to ensure a smooth speech flow. In a teaching setting, for instance, cognitive fluency is crucial during classroom discussions or while giving an impromptu explanation of a concept. When a teacher responds to a student’s question about a complex topic, they need to organise their thoughts rapidly, choose the right terminology and provide a clear and coherent answer. If they fail to do so, they may hesitate, speak in a disorganised manner, struggle with lexical retrieval, mispronounce words or frequently self-correct (see Chapter 3.1.), which can lead to unclear explanations and disrupt the flow of the lesson. However, it is difficult to measure CF objectively because a speaker’s internal cognitive processes cannot be directly measured (de Jong et al. 2013: 896).

The second dimension of fluency is ‘utterance fluency’ (UF) (see Figure 1). Unlike cognitive fluency (CF), which concerns a speaker’s linguistic abilities, utterance fluency focuses on the observable temporal aspects of speech (Segalowitz 2010: 48). These aspects are categorised into three components: speed fluency, breakdown fluency, and repair fluency (Segalowitz 2010: 48). Speed fluency relates to the rate at which speech is produced, breakdown fluency refers to disruptions such as pauses and interruptions, and repair fluency pertains to the frequency of self-corrections, false starts or repetitions within an utterance (Suzuki & Kormos 2023: 40). Collectively, these three variables are sometimes called the “triadic framework of UF” (Feng & Guo 2022: 1). Figure 1 further shows that speed fluency influences the speed of speech, whereas breakdown and repair fluency impact the flow of speech (see Skehan 2014: 19). It should be noted that CF and UF are correlated in that strong CF positively influences UF and vice versa (see Kahng 2020). That is to say, an EFL learner with high CF— characterised by factors such as a broad vocabulary and efficient processing skills—is more likely to produce more fluent speech. Thus, CF and UF should not be viewed as separate aspects of fluency but as interconnected facets of a speaker’s fluency.

The third dimension of fluency is called 'perceived fluency (PF)' and – as its name suggests – it does not concern the speaker but the listener. Specifically, PF refers to the inferences and judgments a listener makes about a speaker's CF on the basis of their UF (Segalowitz 2010: 49). In other words, PF is the assessment of how effectively a speaker communicates their message and how proficient they appear in their language use (see Suzuki et al. 2021: 436). This assessment is based on various factors such as speed fluency, breakdown fluency, repair fluency, linguistic accuracy, pronunciation or vocabulary use, with speed fluency and breakdown fluency being the most salient factors, followed by repair fluency (Suzuki et al. 2021: 436). Thus, when language teachers, for example, assess learners' oral performances, they are more likely to perceive a student as fluent if they speak rapidly and effectively utilise pauses. If, however, a student speaks slowly with frequent hesitations, the teacher may assess their performance as less fluent regardless of their repair fluency or vocabulary. It is important to highlight here that different listeners will have different assessments, which is why PF is often a matter of subjectivity. Their judgments may be influenced by their personal background (e.g. if they have rater training). Similar to cognitive fluency (CF), perceived fluency (PF) is closely linked to utterance fluency (UF), as listeners evaluate a speaker's fluency based on the clarity of their spoken output and the ease with which they can process it.

In brief, Segalowitz's (2010) framework presents fluency as a multidimensional construct, comprising cognitive fluency (CF), utterance fluency (UF) and perceived fluency (PF). CF focuses on the cognitive processes involved in language production, UF examines the temporal aspects of speech and PF reflects the listener's perception of fluency based on these observable features. These dimensions are interconnected, with CF influencing UF, which in turn shapes the perception of fluency.

2.2. Goetz's framework of fluency

A more recent framework for oral fluency is proposed by Goetz (2013), who, like Segalowitz (2010), conceptualises fluency as a three-dimensional construct. However, her model differs in that it adds an additional dimension: nonverbal fluency, which is not addressed by Segalowitz. In the following, Goetz's framework of fluency will be discussed in more detail.

According to Goetz (2013: 8) fluency consists of three different dimensions: productive fluency, perceived fluency and nonverbal fluency. Before exploring each of these dimensions, Goetz (2013: 8) introduces the concept of *fluencemes*, which she defines as follows: "A fluenceme is an abstract and idealized feature of speech that contributes to the production or perception of fluency, whatever its concrete realization may be. Fluencemes build the basis for the distinction between productive, perceptive and nonverbal fluency." For example, effective pausing could be considered a fluenceme: While the timing and length of pauses may differ across speakers, the ability to pause naturally is widely regarded as a sign of fluency. Similarly, variations in intonation and rhythm – while expressed differently by each speaker – can also be considered fluencemes if they help maintain a natural flow of speech. Figure 2 provides a visual representation of how fluencemes can be categorised into productive, perceptive and nonverbal fluencemes.

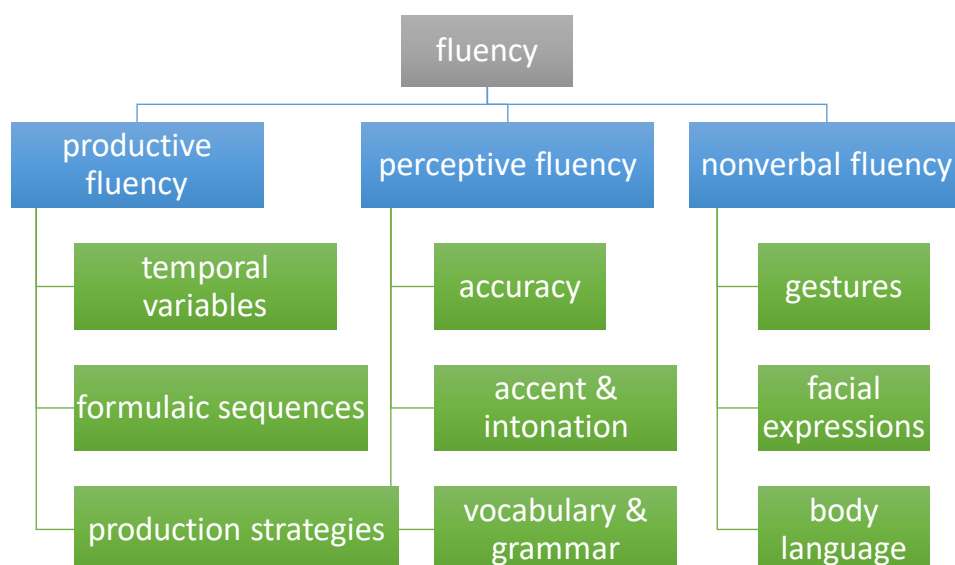


Figure 2 The three dimensions of fluency according to Goetz (adapted from Goetz 2013: 8)

As shown in Figure 2, productive fluency refers to all the fluencemes of production, which encompass temporal variables, formulaic sequences and production strategies. Temporal variables such as speech rate, mean length of runs (MLR), unfilled pauses and phonation time ratio (PTR) are key measures of fluency (for a more detailed discussion, see Chapter 6). Additionally, verbal strategies like formulaic sequences (e.g., *How are you?* or *Thank you very much*), discourse markers (e.g., *well*, *you know* or *actually*) and small words (e.g., *and*, *but* or *so*) are important fluencemes of production. Furthermore, production strategies such as repeats or filled pauses and lexical bundles (e.g., *I mean* or *in other words*) help reduce cognitive load during speech production, allowing speakers to communicate more effectively and fluently (see Thornbury 2005: 7).

The second dimension, perceptive fluency, refers to the aspects of fluency that shape the listener's perception of a speaker's fluency (Goetz 2013: 9). This dimension includes variables that influence how fluency is perceived by the audience, rather than how it is produced by the speaker. Key perceptive fluencemes include accuracy, accent, intonation, lexis, idiomaticity and intonation, as well as grammatical structure (see Figure 2). These factors are essential in forming the listener's general impression of a speaker's fluency. Goetz's concept of perceptive fluency closely aligns with Segalowitz's (2010) notion of perceived fluency, with a slight difference in emphasis: While Goetz (2013) focuses primarily on linguistic features affecting perceived fluency, Segalowitz (2010) also incorporates the cognitive processes of the listener.

The third dimension in Goetz's (2013) framework, nonverbal fluencemes, extends Segalowitz's (2010) framework by adding and considering nonverbal elements such as gestures, facial expressions and body language (see Figure 2). Goetz (2010 2013: 10) notes that nonverbal fluencemes can be both perceptive or productive in nature, depending on the context. For instance, effective use of gestures can reinforce a speaker's message and make their speech appear more fluent, while inconsistent or distracting nonverbal cues may hinder comprehension and negatively affect the listener's perception of fluency. It should, however, be noted that this aspect of fluency is only relevant in face-to-face contexts. In a phone call, for instance, nonverbal fluencemes do not play a role.

Ultimately, both Segalowitz's (2010) and Goetz's (2013) frameworks offer valuable perspectives on the multifaceted nature of oral fluency. While Segalowitz emphasises cognitive processes, temporal variables and listener perception, Goetz expands this view by incorporating nonverbal fluency as another important dimension. These frameworks are particularly important for this action research, as fluency is the central focus of the study. Understanding the nature of fluency is a critical first step in guiding the investigation and determining which specific aspects of fluency will be explored.

Having outlined the characteristics of fluency and its multidimensional nature, the following chapter will explore its development in language learners, with a particular focus on L2 learners. Since their fluency development differs significantly from that of L1 learners, understanding this process is crucial for informing the teaching of speaking and fluency in the EFL classroom.

3. Fluency development: cognitive insights and practical applications

The previous chapter introduced two frameworks of fluency, which describe it as a multidimensional construct. The focus now shifts to how fluency develops in language learners. Thornbury (2005: 1) explains that fluency development depends on both speaking skills and speaker knowledge and that the interaction between these factors drives fluency growth. Understanding this interaction is vital for effective fluency instruction and, by extension, for this action research project as it informs the design of speaking activities that target both skills and knowledge. In the following, the cognitive skills involved in speaking will be discussed, followed by an exploration of the linguistic knowledge necessary for effective fluency development.

3.1. Skills and strategies involved in speaking

To understand how fluency develops in language learners, it is essential to examine the cognitive processes behind speech production (Thornbury 2005: 9). To explain these processes, Thornbury draws on Levelt's (1989) speech production model, which has long been used by researchers to explain how thoughts are translated into speech. According to Levelt (1989), speech production involves three stages: conceptualisation, formulation and articulation, while the speaker is also engaged in self-monitoring throughout the process (see Figure 3). When these three stages occur simultaneously and self-monitoring does not identify any issues, then the speaker will be able to speak fluently (Bao 2023: 632, Thornbury 2005: 10).

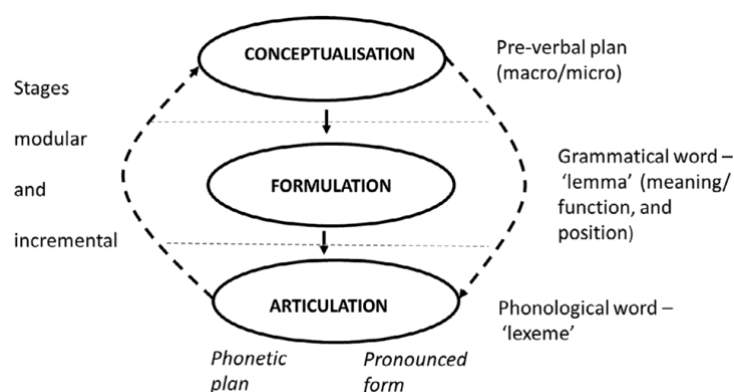


Figure 3 Levelt's (1989) speech production model (see Tavakoli & Wright 2020: 10)

As shown in Figure 3, the first stage of speech production, conceptualisation, focuses on generating the intended message. This process encompasses several pre-verbal activities, including forming a communicative intention, selecting relevant information and monitoring the ongoing conversation (Levelt 1989: 9). Within this stage, two important processes take place: macroplanning and microplanning (Levelt 1989: 107). Macroplanning involves the speaker in breaking down their communicative intention into a sequence of goals and subgoals and determining what information to convey and in what order. This results in a structured sequence of speech act intentions. For instance, if a speaker intends to give directions to a friend, they might first plan to guide them to a nearby café, then to a bookstore and finally to a park. In the microplanning process, then, the speaker works on how to clearly express each part of their message by organising the information. In the previous example, the speaker would then decide how to phrase the directions, such as saying, "First, go straight for two blocks and then take the first left until you reach the café," ensuring that the information is easy to follow. This two-step process ensures that messages are coherent, contextually relevant and effectively communicated. The result of macroplanning and microplanning is referred to as the preverbal message.

The next stage of speech production is called formulation, where the preverbal message is translated into a linguistic structure through grammatical and phonological encoding (Levelt 1989: 11). In grammatical encoding, the speaker selects the appropriate lemma from their mental lexicon to create the sentence's syntactic structure, which Levelt (1989: 11) refers to as the "surface structure". Following this, phonological encoding takes place, during which the sound structure of the words is defined, preparing the message for articulation. The output of phonological encoding is known as the "phonetic or articulatory plan" (Levelt 1989: 12). Using the direction-giving example from before, the speaker would choose words that fit the context, such as "café," "blocks," and "first left," to create a grammatically correct sentence. They would then determine how to produce these words clearly, focusing on aspects like intonation and stress, which are essential to ensuring that their delivery is both natural and comprehensible.

In the final stage of speech production, known as articulation, the vocal apparatus executes the articulatory plan (Levelt 1989: 12). Starting with a phonetic plan, the speaker receives

detailed instructions for producing speech. A specialised cognitive mechanism, the phonological encoder, organises and temporarily stores these instructions in the “articulatory buffer” (Levelt 1989: 12), which helps maintain a steady pace during speech. In the direction-giving example mentioned earlier, speakers first decide what they want to say. As they speak, specific parts of the plan are retrieved from the buffer, enabling them to express one clear instruction at a time. By breaking the instructions into manageable parts, speakers can say, “First, go straight for two blocks,” followed by, “Then take the first left until you reach the café.” Meanwhile, signals from the brain coordinate with the muscles involved in speech to ensure that each word is articulated and pronounced correctly. This coordination of mental and physical processes is essential for turning thoughts into spoken language.

It should be highlighted that speakers also act as their own listeners, which enables them to hear, process and monitor their speech across all three stages of production Levelt (1989: 13). This process is referred to as the self-monitoring process (Levelt 1989: 13), in which overt speech is continuously checked and corrected to ensure alignment with the communicative intention. Such self-awareness allows speakers to identify fluency-related challenges and make real-time adjustments. For example, during the conceptualisation stage, a speaker may begin to formulate an idea but realise that the structure of their argument is unclear. They might pause to reorganise their thoughts to make a more coherent presentation, which leads to a breakdown in fluency (see Bao 2023: 632). At the formulation stage, a speaker may notice they are struggling to find the right vocabulary. Recognising this, they can slow down and select more appropriate words to convey their message accurately. Finally, during the articulation stage, a speaker may become aware that they mispronounced a word, prompting an immediate correction to ensure clarity for their audience. Through these examples, it is evident that self-monitoring significantly contributes to effective communication by enhancing the speaker's ability to address and refine their fluency in real time.

Furthermore, it is important to note that the speech production stages operate simultaneously rather than sequentially, allowing for the fluid and dynamic nature of spoken communication (see Kormos 2006: 8, Bygate & Samuda 2018: 43). As Thornbury (2005: 2) explains, “the planning of one utterance may overlap with the production of the previous one.” This indicates that while a speaker is articulating one sentence, they can simultaneously

begin to plan their next utterance. This overlap, often referred to as 'real-time processing', is the main reason why spoken language differs significantly from written language. Specifically, spoken language is more spontaneous, allowing for immediate responses and adaptations to the flow of conversation (Thornbury 2005: 2). Richards (2015: 407-408) highlights several characteristics of spoken language, including the use of incomplete sentences, chunks or multi-word units, such as *Saw my friend*, *Could you please* and *what I'm trying to say is*. These features illustrate the dynamic nature of spoken communication.

Both the self-monitoring process and real-time processing can disrupt fluent speech, which is why speakers employ various production strategies to maintain their flow (Thornbury 2005: 7). One effective strategy for masking these disruptions is the use of pause fillers (Thornbury 2005: 7). Speakers commonly use sounds like *uhm* and *ehm* to fill pauses, along with vague expressions such as *sort of* or *kind of* to bridge their thoughts (see production strategies in Chapter 2.2.). Another widely used technique involves gaining additional time to formulate ideas by repeating a word at the point where speech momentarily halts. This repetition not only allows the speaker to collect their thoughts but also provides a seamless transition in conversation, thereby giving 'at least the illusion of fluency' (Thornbury 2005: 7). The role of pauses will be discussed in more detail in Chapter 6.

While the stages and processes involved in Levelt's (1989) model describe speech production effectively, they do not fully account for the essential linguistic knowledge required for fluent speaking. Thornbury (2005: 11) emphasises that without this foundational knowledge, the ability to perform the cognitive skills and strategies for fluent speech can be limited and hinder fluency development. Thus, the interplay between knowledge and skills is crucial for fostering fluency in language learners.

The next chapter will look at the specific knowledge speakers need to develop fluency and how this can guide effective ELT instruction. This is especially relevant to the action research project, as identifying the key areas of knowledge that influence fluency allows for creating targeted interventions to help students improve their skills.

3.2. Linguistic knowledge involved in speaking

For the mental processes involved in speaking to be effectively realised, the speaker needs to possess a certain level of linguistic knowledge (Thornbury 2005: 10). While the stages and processes of speech production are similar for both L1 and L2 English learners, L2 speakers typically have a less extensive knowledge of the L2—particularly in terms of vocabulary and grammar—compared to their L1 knowledge, which often contributes to their perceived lack of fluency (Thornbury 2005: 28). However, Thornbury (2005: 37) contends that extensive vocabulary and grammar knowledge are not necessarily required for oral fluency. He suggests that “fluency can be achieved with relatively minimal resources” and lists eight core aspects of language that enable fluent speech (see Thornbury 2005: 31-37):

- (i) Intercultural competence: Learners should be able to manage cross-cultural interactions.
- (ii) Genre Knowledge: Understanding different speech genres is useful, especially for formal contexts like business or academic settings. For everyday communication, genre-specific knowledge is less critical.
- (iii) Speech acts: Learners need to be familiar with common ways of performing speech acts, such as offering advice. These forms, due to their formulaic nature and utility in communication, should be emphasised in fluency instruction.
- (iv) Register: Adapting language according to context and social status is important. Exposure to different registers and role-plays help learners to adjust to various levels of formality.
- (v) Discourse: Knowledge of discourse markers and turn-taking is important. Learners should be familiar with how these are used in the target language to manage conversations effectively.
- (vi) Grammar: Spoken grammar differs from written grammar. Key areas for spoken English include basic tenses, modals, question forms and conjunctions. Overemphasis on complex sentence structures common in written English may be less useful.
- (vii) Vocabulary: A smaller, frequent vocabulary can be sufficient for casual conversation, while specialised contexts require more extensive knowledge. Emphasis should be on high-frequency words and their common phrases or chunks.

- (viii) Phonology: Pronunciation issues, especially stress, rhythm and intonation can affect intelligibility. Key aspects include core consonant sounds, vowel contrasts, and consonant clusters. Achieving fluency may not require native-like pronunciation but a focus on these core aspects can improve clarity.

Thornbury (2005: 37) argues that for EFL learners to develop fluency, they must first gain access to these core aspects of the target language. This process involves three main stages: First, learners need to become aware of important language features through activities designed to raise their awareness. Second, they must integrate these features into their existing language knowledge through appropriation tasks. Finally, EFL learners should practice applying this knowledge in real-time communication, using activities that encourage autonomy in speaking. Thus, L2 fluency develops through a three-stage process involving activities for raising awareness, appropriating language features, and fostering autonomy.

Building on these insights into fluency development, the following chapter focuses on L2 fluency instruction, with particular emphasis on the three stages of the process. In the context of this action research project, it is crucial to know how to design each stage to select relevant activities, whether aimed at raising awareness or promoting learner autonomy.

4. Teaching speaking and fluency

Building on the three-stage process of fluency development in EFL learners – awareness-raising, appropriation and autonomy – this chapter explores various strategies and activities that can support each stage. This can offer useful insights for designing interventions in this action research project. The chapter begins with an overview of the challenges associated with teaching speaking and fluency in the EFL classroom, followed by a detailed discussion of various activities and approaches suited to each stage.

4.1. Challenges in teaching speaking and fluency in EFL classrooms

Teaching speaking and fluency still presents a challenge for many EFL teachers, mainly due to a lack of understanding of spoken language, insufficient attention to fluency in course materials and assessment practices (see Richards 2015, Thornbury 2005, Rossiter et al. 2010, Tavakoli & Hunter 2018).

In order to teach speaking and fluency effectively, teachers need to be aware of the nature of spoken language (Richards 2015: 407). As discussed in Chapter 3.1, spoken language differs significantly from written language in several aspects, such as the frequent use of incomplete sentences, social formulas, colloquialism and the simple coordination of clauses (e.g., *and*, *but*, *because*), in contrast to the complex sentence structures, which are typical in writing (Richards 2015: 407-408). If teachers fail to understand this nature, their teaching activities might be ineffective, which can result in classes that often devolve into unfocused discussions, without meaningful instruction on oral proficiency (Richards 2015: 407).

The challenge of teaching speaking is further compounded by the lack of emphasis on speaking in both coursebooks and assessments (Rossiter et al., 2010: 599; Tavakoli & Hunter, 2018: 345). For example, research on widely used EFL coursebooks in Austria reveals that they fail to allocate sufficient speaking activities to meet curriculum requirements and lack adequate lexis or scaffolding for extended spoken interaction (Wallner 2014: 32). These shortcomings are mirrored in Austria's assessment practices, where formal exams (so-called 'Schularbeiten') focus on reading, writing, grammar and vocabulary, but exclude oral

components (see BMBWF 2021: 4). Consequently, speaking skills are seldom formally assessed, leaving fluency development largely neglected in both teaching and evaluation.

In response to these challenges, the following chapters will explore practical strategies and activities for developing fluency, grounded in the theoretical frameworks of Thornbury (2005) and Richards (2015). These strategies, tailored for the action research project, aim to address gaps in fluency instruction and support learners in achieving greater oral proficiency.

4.2. Raising awareness of the core aspects of language

When teaching speaking, EFL teachers need to first identify the specific genre of spoken language they want to focus on (Richards 2015: 407). This is important because different genres of spoken language have distinct discourse patterns and features, which shape how language is used in various contexts (Richards 2015: 407). Common genres typically taught in schools include small talk, discussions, transactions, conversations and presentations (Richards 2015: 408). For a speaking class to be effective, the teacher should familiarise students with the linguistic features and conventions that are characteristic of each genre—for example, a presentation usually begins with a greeting. This also involves teaching the appropriate vocabulary, grammar, speech acts, and the social and cultural norms that are typical for each type of spoken interaction (Thornbury 2005: 41).

One effective way to introduce students to a specific genre is through awareness-raising activities. There are numerous awareness-raising activities that can be applied across the various genres of speaking. Thornbury (2005: 43-62), for example, suggests exposing EFL learners to authentic and natural language through recordings, transcripts or teacher-talk, as it allows them to engage with real-life communication. This exposure draws their attention to key elements such as discourse markers, sociocultural rules, vocabulary, lexical chunks and intonation patterns that are common in spoken language. Likewise, Tavakoli and Hunter (2018: 334) emphasise that exposure to authentic language is particularly useful for promoting learner fluency, as it helps students internalise the features of natural speech and apply them in their own communication. Based on an empirical study with eleven ESL learners in Canada, Wood (2006: 29) reports that the explicit teaching of lexical chunks—such as collocations, idioms, phrasal verbs, social formulas and discourse markers commonly used in

authentic language—has a positive impact on the development of oral fluency. Apart from exposing learners to authentic language and teaching lexical chunks, noticing-the-gap activities are another useful awareness-raising activity as they encourage learners to identify discrepancies between their own language use and that of proficient speakers. These activities not only foster a deeper understanding of language features but also enable learners to recognise and address their knowledge gaps. By actively engaging with these awareness-raising strategies, learners can fill the “gaps in their knowledge, with regard to speaking” (Thornbury 2005: 62).

4.3. Appropriation activities: task-repetition

Awareness-raising activities should ideally be followed by so-called appropriation activities, which aim to integrate the newly gained knowledge into the language competence of the speaker (Thornbury 2005: 62). To this end, Thornbury (2005: 63-88) lists various appropriation activities such as drilling and chants, reading aloud, practised control, communicative tasks or task repetition. The latter activity, i.e. task repetition, is described as particularly effective to enhance learners’ fluency (Tavakoli & Hunter 2018: 334).

Task repetition can be defined as the “repetition of the same or slightly altered task – whether the whole tasks, or parts of a task” (Bygate & Samuda 2005: 43). There is a great body of research that supports the use of task repetition in fluency instruction (Ahmadian & Tavakoli 2011; de Jong and Perfetti 2011; Lambert et al. 2016). The reason for this is evident, as Ahmadian (2011: 270) explains: “The positive effects of task repetition on oral task performance have plausible explanations in the psycholinguistics of speech processing.” These plausible explanations can be found within Levelt's (1989) speech production model (Ahmadian 2011: 270), as discussed in Chapter 3. Bygate and Samuda (2005: 44) explain in more detail how task repetition affects task performance: When speakers repeat a task, they can rely on their previous planning and formulation, which helps them remember information more easily and pick up on important details. This familiarity makes the planning process smoother and strengthens the connections between their ideas and the grammatical structures they need, resulting in faster and more accurate speech. In this sense, task repetition can be viewed as enabling a second 'draft,' enhancing not only the language produced but also the cognitive processes at play. Essentially, Bygate and Samuda's (2005:

44) approach encompasses two distinct phases: the first enactment, which helps organise cognitive content and develop a multi-level schema, followed by a second enactment that builds on this prior experience, facilitating better integration of knowledge and performance. De Jong and Perfetti (2011: 539) summarise this well stating: “Overall, when students repeat their speech, they do not have to generate content (semantic, grammatical, lexical), which frees up cognitive resources, which can be used in several ways.” Thus, task repetition is a valuable strategy for improving fluency, as it allows learners to build on their prior experiences, making it easier for them to communicate more effectively.

4.4. Autonomy-building speaking tasks

Following the appropriation stage, learners should work towards speaking independently and autonomously. A wide range of activities can promote this goal, such as presentations, rehearsed talks, drama exercises, role-plays, discussions, speaking outside the classroom, “the best recording,” rankings, or interviews. These activities are intended to give learners the chance to practice and refine their speaking skills, as outlined by Thornbury (2005: 89-111) and Newton and Nation (2009: 162). For these autonomy-building activities to be effective, Thornbury (2005: 90-91) developed a set of criteria, which closely align with the criteria outlined by Nation and Newton (2009: 9). Both Thornbury (2005) and Nation and Newton (2009) agree that the most crucial criteria for effective speaking tasks are productivity, purposefulness, safety and challenge.

The first criterion, language productivity, is met when speaking activities provide ample opportunities for learners to produce speech autonomously; otherwise, if tasks involve only minimal language use, such as exchanging isolated words – e.g., in a vocabulary matching activity where students match words to images or definitions –or if participation is limited, the effectiveness of the activity may be low (Thornbury 2005: 90). Likewise, Nation and Newton (2009: 9) emphasise the importance of generating “a large amount of output” to support the development of fluency.

To meet the second criterion of purposefulness, the speaking activity should have a clear objective, such as conveying meaning to enhance language productivity (Nation and Newton 2009: 9). For example, tasks that require reaching a consensus, such as a group discussion

where students must agree on the best solution to a community issue, can make discussions more engaging and encourage active participation (Thornbury 2005: 90). In contrast, if the activity focuses solely on language features rather than fluency, it may not be effective; as Nation and Newton (2009: 9) point out, "if the focus is on language features, it is not a fluency activity."

The criterion of safety means that learners need to feel secure in their attempts at autonomous language use, with minimal risk of making errors. Nation and Newton (2009: 153) highlight that fluency activities should involve familiar language and content, with only a few unknown vocabulary items. If, however, the activity involves too many unknown words, it should not be considered a fluency activity (Nation and Newton 2009: 9). Thornbury (2005: 91) further argues for a supportive atmosphere in the classroom, where experimentation is encouraged and the teacher is available to assist if necessary.

Finally, adding a level of challenge to tasks is a crucial criterion for motivating learners to effectively use their communicative skills, as this creates a sense of achievement and excitement (Thornbury 2005: 91). Ideally, activities aimed at improving fluency should encourage learners to speak more quickly and incorporate more lexical chunks than they normally do in everyday conversation (Nation and Newton 2009: 153). However, the level of challenge should be appropriate; tasks that are too difficult can discourage learners and lead them to revert to their native language. Teachers should carefully adjust the difficulty of tasks to ensure they provide the right amount of pressure or encouragement to perform at a faster-than-usual speed (Nation and Newton 2009: 9).

In summary, effectively teaching speaking and fluency in the EFL classroom requires a structured approach that incorporates awareness-raising, appropriation and autonomy. By familiarising students with the distinct genres of spoken language and providing opportunities for meaningful practice through task repetition, teachers can help learners integrate new knowledge into their speech. Furthermore, fostering autonomy through productive, purposeful and safe speaking activities with an appropriate level of challenge is essential for developing fluency. These strategies, when applied in a supportive classroom environment, can significantly enhance learners' ability to communicate fluently and confidently.

5. The 4/3/2 activity

In the preceding chapter, the essential criteria for designing effective speaking and fluency-building activities, as outlined by Thornbury (2005) and Nation and Newton (2009), were discussed. One classroom activity that meets all these criteria is the 4/3/2 activity (Newton 2016: 434), a well-established speaking activity designed for intermediate and advanced language learners to enhance fluency while reducing speaking anxiety (Maurice 1983: 130). Originally devised by Maurice (1983) to help learners increase fluency, the 4/3/2 activity involves learners in presenting the same monologue three times, with decreasing time limits: four minutes, three minutes and two minutes, respectively. Each iteration involves a new listening partner to keep the task more engaging for both speakers and listeners (Maurice 1983: 130). By incorporating key elements such as task repetition, time constraints and a communicative focus, the 4/3/2 activity aligns with the essential criteria of productivity purpose and challenge (see Chapter 4.4.). The opportunity for pre-task planning also addresses the criterion of safety, helping learners feel more confident as they engage in the activity.

This chapter will examine the implementation of the 4/3/2 activity, explore its theoretical foundations within second language acquisition (SLA) research, and review empirical evidence supporting its effectiveness in enhancing fluency. It is worth noting that there is no consistency in the literature regarding its name, as some refer to it as the 4/3/2 method, 4/3/2 technique, 4/3/2 activity or 4/3/2 task. For reasons of consistency, I will refer to it as the 4/3/2 activity.

5.1. The practical implementation of the 4/3/2 activity

The 4/3/2 activity has been widely implemented across various educational settings, from traditional classrooms to self-directed learning environments (Nation 1989, Arevart & Nation, 1991, de Jong & Perfetti 2011; Santos & Ramirez 2019, Boers, 2014). Its simplicity and minimal material requirements – such as a stopwatch, a speaking prompt, pens and paper for note-taking or preparation – make it an accessible and effective tool for fluency development. The activity consists of three stages: pre-task planning, task execution and post-task reflection.

In the pre-task phase, the teacher provides students with a speaking prompt on a topic that is both communicative and relevant to real-life language use. The topic should be designed to allow for at least four minutes of speaking time. To help students organise their thoughts, teachers may offer a brief preparation period (e.g., 5 minutes) to outline key points (see the benefits of pre-task activities in Chapter 5.2.). Boers (2014: 231) also suggests that providing model input, such as a recording of a native speaker completing a similar task, can help students identify useful language patterns to incorporate into their own speech (see Chapter 4.2.).

Once the planning phase is complete, the students begin the main 4/3/2 activity. They are paired with a listening partner and asked to speak for four minutes on the assigned topic. During this time, the speaker delivers their monologue while the listener engages in active listening, maintaining eye contact and providing backchannel cues (Thornbury 2005: 9). However, Boers (2014: 231) notes that this format may feel somewhat unnatural, as it involves speaking for an extended period without interruption or feedback. To address this, Maurice (1983: 130) suggests that listeners focus on the main points from the speech, jot down questions for later discussion, or critically reflect on the content. After the first round, students switch partners and repeat the same monologue in three minutes. The teacher keeps track of time and signals when the three minutes are up. In the final round, students change partners again and deliver the same speech within just two minutes.

Following the three rounds, a post-task reflection takes place. This phase allows students to discuss their experiences, reflect on improvements in fluency, and identify areas for further development (see de Jong 2011, Suzuki 2021).

5.2. Theoretical foundations of the 4/3/2 activity in second language acquisition

The 4/3/2 activity is grounded in key concepts from second language acquisition (SLA) research, particularly those related to Task-Based Language Teaching (TBLT) and the practice of task repetition. This chapter will provide an overview of these theoretical foundations and also examine potential drawbacks associated with excessive task repetition.

At its core, the 4/3/2 activity follows the principles of Task-Based Language Teaching (TBLT), which emphasises using real-world communication tasks to enhance language skills. In TBLT, interaction, meaning-focused communication and the authentic use of language have an integral role rather than explicit language instruction (Ellis 2019: 1). The 4/3/2 activity supports these principles by engaging learners in a communicative task focused on fluency, which is achieved through repetition and interaction with different partners. Learners must focus on conveying meaning under time pressure, which mirrors real-life communication scenarios. Moreover, this activity follows the three-stage structure in TBLT (see Chapter 5.1.): (1) pre-task, where learners plan their monologues; (2) task performance, where learners speak three times to different partners; and (3) post-task reflection, where learners can review and refine their language use. It has been shown that especially pre-task planning is crucial for improving learners' spoken performance (Foster & Skehan 1996, Seifoori & Vahidi 2012, Ellis 2005).

In addition to these TBLT principles, task repetition is another crucial element of the 4/3/2 activity for enhancing fluency. A substantial body of research, for instance, emphasises the positive effects of task repetition on utterance fluency (e.g., Ahmadian & Tavakoli 2011, de Jong & Perfetti 2011). This positive effect has been discussed in Chapter 4.3. Notably, de Jong and Perfetti (2011) suggest that task repetition can be optimised by having students discuss the same topic across multiple repetitions rather than different topics. In their study, one group of EFL learners performed three monologic tasks on different topics, while another group delivered three monologues on the same topic. Their findings indicated that both groups improved their fluency in the short term, but the group assigned to different topics exhibited more significant long-term gains. Suzuki (2011) supports these findings by showing that EFL learners who practiced three oral narrative tasks using a blocked repetition schedule – where they repeated the same task multiple times in a row – showed greater fluency development, such as faster speaking rates and fewer pauses within sentences, compared to those who practiced with an interleaved schedule, where they mixed different tasks together.

However, numerous studies also highlight the potential drawbacks of excessive task repetition, particularly its impact on learner engagement and learning outcomes (Hanzawa & Suzuki 2023, Kim 2013, Ellis et al. 2020). This issue becomes especially apparent when the

exact same task is repeated multiple times without variation. Ellis et al. (2020: 231) caution that "exact repetition, which requires learners to repeat the same task multiple times, is not the ideal option in task-based teaching," and emphasises the need for variety in task design. Kim's (2013: 20) study supports this view, finding that although both learners and teachers acknowledged the developmental benefits of task repetition, teachers expressed concerns about declining interest when tasks lacked novelty. Similarly, Hanzawa and Suzuki (2023: 467) note that while task repetition can improve fluency and speaking skills, it risks inducing boredom and diminishing motivation when learners perceive tasks as monotonous.

To address the potential drawbacks, the 4/3/2 activity includes two essential variations (Maurice 1983: 130): first, conversation partners change after each round, and second, the time frame becomes progressively shorter with each round. Rotating partners keeps the conversations dynamic and encourages students to adapt to different speaking styles, fostering flexibility. Meanwhile, the decreasing time frame challenges students to organise their thoughts quickly and communicate more efficiently. These changes can be helpful to maintain interest by introducing novelty and increasing the challenge (see Chapter 5.1.).

5.3. The effectiveness of the 4/3/2 activity

A great number of studies have supported the effectiveness of the 4/3/2 activity in promoting oral fluency. In one of the earliest studies on the activity, Nation (1989) and Arevart and Nation (1991) found that learners who practiced speaking through the 4/3/2 activity showed significant improvements in fluency, as measured by speech rate, reduction of hesitation and increased utterance length. These findings suggest that the activity enables learners to produce language more quickly and with fewer interruptions. Boers (2014: 222), however, notes that improvements observed in these studies are based on comparisons between the individual monologues within the 4/3/2 activity itself, rather than assessing the long-term impact of the activity on fluency development. In other words, the 4/3/2 activity can effectively enhance learners' short-term fluency through its core components—task repetition and pre-task planning—which help free up cognitive resources. However, to promote long-term fluency development, it is essential to focus on proceduralisation and automatisisation (see de Jong & Perfetti 2011: 536).

To measure the long-term impact on fluency, de Jong and Perfetti (2011) examined the 4/3/2 activity in a study involving 24 ESL students. They were divided into two groups: a Repetition group, which repeated their speeches on the same topic three times, and a No Repetition group, which spoke about different topics each time. Fluency was measured through metrics such as the mean length of fluent runs, mean pause length, phonation/time ratio and articulation rate. While both groups improved during training, only the Repetition group maintained these gains in post-tests, demonstrating longer fluent runs, shorter pauses and higher phonation/time ratios, suggesting proceduralisation of linguistic knowledge. These gains were retained for up to four weeks and transferred to new topics, indicating that the training's benefits extended beyond lexical retrieval to include proceduralisation of sentence structures and language processing. The findings underscore the effectiveness of the 4/3/2 activity in fostering both immediate and long-term fluency, highlighting the value of repetition in language learning.

In a more recent study, Santos et al. (2022) investigated the impact of combining the 4/3/2 activity with self-assessment to improve speaking fluency among ninth-grade English learners in Ecuador. Conducted over five weeks with 24 students divided into experimental and control groups, the experimental group participated in the 4/3/2 activity alongside self-assessment, while the control group focused on traditional vocabulary and grammar instruction without structured fluency activities. Pre- and post-test evaluations, using a rubric measuring rate, hesitations and repairs, revealed significant fluency improvements in the experimental group, while the control group showed minimal gains. The results indicated that the 4/3/2 activity helped enhance memory and reduce hesitations through repetition, while self-assessment encouraged reflection, engagement and learner responsibility. However, the study acknowledged limitations such as fatigue from online learning and the combined use of techniques, which made it difficult to determine the distinct contributions of each method. Basically, the findings highlighted the effectiveness of innovative, reflective teaching practices in fluency development and called for further research to explore the individual effects of these activities across varying proficiency levels.

In a study conducted by Boers (2014), it was shown that after the 4/3/2 intervention learners showed enhanced fluency as well as slight improvements in accuracy and complexity. Ten

adult ESL learners delivered two talks three times, one talk with and the other without increasing time pressure. While the findings confirm that this activity significantly boosts fluency, they also reveal that the time pressure, which is inherent in the activity, can negatively impact linguistic accuracy, leading to even more errors. Boers (2014: 227) notes that the high level of verbatim repetition among participants limits improvements in other linguistic areas, such as lexical sophistication and syntactic complexity. He emphasises the need for further research to explore these dynamics more thoroughly, suggesting that while the 4/3/2 activity has its merits, it may also reinforce existing errors rather than promote overall language development.

Building on the findings of Boers (2014), a study conducted by Thai and Boers (2016) investigated the effects of the 4/3/2 activity on fluency, complexity and accuracy among twenty Vietnamese EFL students and compared it to the 3/3/3 activity, which involves students speaking for three minutes to three different partners. The results show that a significant improvement in fluency within the decreasing time condition, where students spoke faster as time decreased. In contrast, the constant-time condition in the 3/3/3 activity also led to fluency improvements, but to a lesser extent. There were, however, modest gains in complexity and accuracy. The results suggest that for balanced improvement in fluency, accuracy and complexity, educators should consider maintaining constant time conditions during task repetition. In general, adding more time pressure can help to enhance fluency in delivering monologues. However, it does not seem to improve complexity or accuracy much. This underlines the need for thoughtful implementation of the 4/3/2 activity in language learning.

As discussed in this chapter, the 4/3/2 activity can be highly effective in developing fluency in language learners. Grounded in theories of TBLT and task repetition, it encourages learners to speak on the same topic multiple times under progressively shorter time constraints, promoting fluent language use and reducing cognitive load. Research consistently demonstrates its positive impact on fluency. However, it does not necessarily improve linguistic accuracy or complexity, so it should be used carefully to maintain a balanced approach to language learning.

6. Variables for measuring utterance fluency in research

Thus far, the discussion focused on the concept and dimensions of oral fluency, its development, how it can be effectively taught and the role of activities such as the 4/3/2 activity in enhancing learners' fluency. One important area that has yet to be explored is how fluency gains can be quantified and measured. Establishing reliable measures of fluency is essential for this action research study, as it enables the assessment of the effectiveness of the 4/3/2 activity in terms of fluency enhancement. However, measuring a complex construct such as fluency can be challenging as it involves both objective and subjective factors (e.g. cognitive fluency or perceived fluency, see Chapter 2). Hence, this chapter will focus specifically on measures of utterance fluency, which offer more quantifiable and objective metrics (see Chapter 2). It will begin by providing an overview of commonly used fluency measures in L2 research and then zoom in on commonly used measures related to the speed and flow of speech.

6.1. Measuring oral fluency: An overview of key variables

Since the 1980s, there has been a growing interest in developing measures of oral fluency across multiple disciplines, including foreign language acquisition (FLA) research, speech pathology, language testing and second language acquisition (SLA) studies (Tavakoli & Wright 2020: 44). To this date, a wide range of UF measures have been developed, each focusing on different components and aspects of fluency. Table 1 provides an overview of commonly used UF measures, their focus (i.e., speed fluency, breakdown fluency or repair fluency, as outlined in Skehan's triadic framework in Chapter 2.1.), and their operationalisation. This overview is adapted from Zhang et al. (2023: 6) and supplemented by the frameworks of Skehan (2014) and Segalowitz (2010).

Table 1 Overview of measures of UF, based on Zhang et al. (2023: 6) and Skehan (2014: 19)

component of fluency	aspect of fluency	temporal variables	operationalisation
speed of speech	speed fluency	speech rate	the number of syllables per minute of speech (including pauses)
		articulation rate	the number of syllables per minute of speaking time (excluding pauses)
		mean length of runs	total number of syllables divided by the total number of runs
flow of speech	breakdown fluency	phonation-time ratio	utterance duration divided by the total duration
		mean length of pauses	total silent pause duration divided by the numbers of pauses
		frequency of filled/silent pauses	mean number of filled/silent pauses per minute
	repair fluency	repetition frequency	the number of repetitions per minute
		self-repair frequency	the number of self-repairs per minute

As illustrated in Table 1, there are a number of temporal variables that focus on the speed and flow of speech. For example, speech rate, articulation rate and mean length of runs are used to measure speed fluency, while measures such as phonation-time ratio and the number of filled pauses per minute capture aspects of breakdown fluency. Similarly, the frequency of repetitions or false starts per minute provides insight into repair fluency. It should, however, be noted that the list of variables in Table 1 is not exhaustive (see Kormos 2006 for more details).

While the variables provided in Table 1 are frequently used in L2 fluency research, there is no consensus among scholars regarding the best variable for measuring fluency (Tavakoli & Wright 2020: 43). This lack of agreement stems from the fact that these measures have been developed and operationalised by researchers from diverse disciplines (Tavakoli & Wright 2020: 43). Nevertheless, certain variables are widely recognised as reliable indicators of fluency (Kormos 2006: 162-164). These include speech rate and the phonation-time ratio, which are commonly used to assess the smoothness and efficiency of speech. Additionally, Kormos (2006: 164) identifies other key measures, such as the mean length of pauses, the frequency of filled or silent pauses per minute and dysfluencies per minute as reliable

measures of fluency. Many of these measures are frequently employed in fluency research, especially in studies involving tasks like the 4/3/2 activity (e.g., de Jong & Perfetti 2011, Yang 2013, Tran 2019, Ogawa 2021, Santos & Ramírez-Ávila 2022). The following chapters will provide a closer examination of these measures in order to provide a clearer understanding of how they contribute to evaluating fluency development in L2 learners.

6.2. Measuring the speed of speech

Speech rate refers to the speed at which a speaker produces language, typically measured in words or syllables per minute and serves as a fundamental indicator of speed fluency (Kormos 2006: 162). It is calculated by dividing the total number of words or syllables spoken by the time taken to produce that speech (Kormos 2006: 162; for example, if a learner produces 150 words in a 2-minute speech, their speech rate would be 75 words per minute (WPM). Native speech rates typically range from 120 to 260 words per minute, depending on various factors such as communication context, the speaker's individuality and speaking style (Goetz 2013: 15). Generally, a higher speech rate is associated with fewer pauses and longer speech runs, which are linked to perceptions of greater fluency and proficiency (Tavakoli & Wright 2020: 49). However, speech rate alone does not fully describe fluency because it fails to account for the management of pauses, repairs and other fluency-related factors. Therefore, while speech rate is a valuable measure of fluency, it should be interpreted alongside other indicators (Tavakoli & Wright 2020: 43).

Articulation rate, on the other hand, is a more specific measure that focuses on the speed of meaningful speech production, excluding pauses and non-meaningful elements such as filled pauses and repetitions (Kormos 2006: 163). It is typically expressed in syllables or words per minute and provides a clearer picture of a speaker's fluency (see Table 1). To determine a speaker's articulation rate, the total number of syllables spoken in a sample is divided by the time taken (in seconds) to produce them, and the result is then multiplied by sixty to convert the rate into syllables per minute (Kormos 2006: 163). In other words, articulation rate is "the mean number of syllables produced per minute over the total amount of time spent speaking when producing the speech sample" (Kormos 2006: 163). Just as with speech rate, articulation rate does not account for the management of pauses and other flow-related factors, which is

why it provides only a partial measure of a speaker's fluency and should be combined with other indicators for a more comprehensive assessment.

In brief, the speed of speech, encompassing both speech rate and articulation rate, plays a crucial role in the assessment of speed fluency in language learners. As highlighted, speech rate serves as a broad measure of how quickly a speaker produces language, while articulation rate offers a more focused view by isolating meaningful speech production from pauses and non-verbal elements. Although both measures are important for quantifying speech of speed, neither alone offers a complete picture of fluency. To fully evaluate a learner's fluency, these measures must be considered alongside other indicators. (Tavakoli & Wright 2020: 43)

6.3. Measuring flow of speech

As previously mentioned, speech flow is shaped by both pausing (breakdown fluency) and repairs (repair fluency). Pausing measures include the length and frequency of pauses, as well as the phonation-time ratio, which indicates how effectively a speaker maintains continuous speech (Tavakoli & Skehan 2005: 254). In contrast, repairs are reflected in the frequency of dysfluencies, such as repetitions, false starts, corrections and reformulations, which reveal how well a speaker manages interruptions and disruptions in speech.

Numerous studies on both L1 and L2 fluency have demonstrated that fluent speech is strongly correlated with the mean length of pauses (Goetz 2013: 18). To determine what qualifies as a pause, there have been numerous attempts in fluency research to establish a threshold (Tavakoli & Wright 2020: 51). Recent studies have agreed on a threshold of 250 ms: that is, a pause is defined as an interruption of the flow of speech with a minimum length of 250 ms (Tavakoli & Wright 2020: 51). To measure the mean length of pauses, all the interruptions within a speech sample that are longer than 250 ms are measured and averaged. A longer average pause length indicates less fluent speech.

Not only the length of pauses, but also their frequency is an important aspect of breakdown fluency (Goetz 2013: 8). The frequency of pauses can be measured by the so-called phonation-time ratio, i.e. the proportion of time a speaker spends producing voiced sounds during a

given period of speech (de Jong & Perfetti 2011: 538). This measure indicates how efficiently a speaker is able to maintain the flow of speech. A higher phonation-time ratio means fewer pauses and a greater percentage of time spent speaking, which is typically associated with greater fluency. Conversely, a lower ratio indicates more or pauses, which results in a less fluid speech pattern. As such, phonation-time ratio is a useful tool for describing breakdown fluency.

Besides the length and frequency of pauses, the quality of pauses, i.e. whether they are filled or unfilled, is another important measure of fluency (Goetz 2013: 8). Unfilled pauses have a strong impact on articulation rate (see Chapter 6.2.) and the phonation time ratio, whereas filled pauses, consisting of non-lexical fillers such as *ehm* or *uh*, do not have the same influence on these temporal variables in speech production (see Goetz 2013: 20). Furthermore, unfilled pauses can be divided into T-pauses, i.e. pauses that the speaker makes intentionally (e.g. for stylistic reasons) and D-pauses, i.e. pauses that occur unintentionally. Generally, T-pauses are perceived as more natural whereas D-pauses are often associated with less fluent speech (Goetz 2013: 19).

Evaluating the number of dysfluencies per minute offers another valuable insight into a speaker's ability to maintain the flow of speech. These measures typically involve calculating “the average number of reformulations, false starts, self-corrections, repetitions, replacements, and hesitations in the speaker’s performance (per sixty seconds)” (Tavakoli & Wright 2013: 53). It is, however, important to highlight that dysfluencies are a common part of speech, for both native and nonnative speakers and that, to a certain degree, dysfluencies are not perceived as deviant in terms of fluency (Lahmann et al 2017: 229). It is the average number of dysfluencies that provides insight into the speaker's fluency. As Lahmann et al. (2017: 230) observe, L2 speakers usually have a higher number of dysfluencies in their speech due to the additional cognitive load of managing a second language (see Chapter 3.2.).

Taken together, speech flow is shaped by both pausing and repairs. Measures such as mean pause length and the phonation-time ratio assess breakdown fluency, while dysfluencies – such as repetitions and false starts – reveal how well a speaker manages speech disruptions.

By considering these various measures, researchers can gain a more complete understanding of fluency, particularly in second language contexts.

6.4. Measuring fluency with PRAAT

Calculating the various UF fluency measures can be a highly time-consuming endeavour, which has led to the development of various speech analysis software programs aimed at automating this process (see de Jong et. al 2021). Several online tools have emerged for the assessment of UF fluency, including PRAAT (Boersma & Weenink 2025).

PRAAT is a software application designed for the analysis of speech and phonetic data. It was developed by Paul Boersma and David Weenink at the University of Amsterdam and offers researchers a range of analytical capabilities, including the measurement of speech rate, pitch, intensity and formant frequencies. A notable feature of PRAAT is its scripting functionality, which allows for the automation of complex measurement tasks, e.g. fluency measurement. For automatic fluency measurement, de Jong et al. (2021) developed two freely available scripts that can be run in PRAAT on any audio file (see <https://sites.google.com/view/uhm-o-meter>): one script for the identification of syllable nuclei and phrases; one script for the detection of filled pauses.

Numerous studies have employed the PRAAT scripts by de Jong et al. (2021) for the measurement of fluency. For example, Zhang et al. (2021) used these scripts to examine the impact of task repetition on students' oral performances. In their analysis, they assessed fluency gains using metrics such as speech rate, articulation rate, phonation/time ratio and other pause-related measures, which were automatically calculated by the software using established scripts for accuracy and reliability. By automating the process, this approach not only speeds up data analysis but also enhances the objectivity of fluency evaluations. Similarly, Tavakoli et. al (2020) used PRAAT to analyse the fluency of 32 speakers performing tasks from the Aptis Speaking Test, revealing that speed measures distinguish lower proficiency levels (A2–B2), while breakdown and repair measures highlight more subtle differences, emphasising the importance of detailed fluency analysis in language assessment. Due to its widespread use in L2 research and practicality, this AR study will also employ PRAAT to measure students' fluency (see Chapter 7.6.).

Part II:

7. The AR project: design, methodology and implementation

While the first part of this paper reviewed existing research on the development of oral fluency and the 4/3/2 activity in the field of English Language Teaching (ELT), this empirical part presents the AR project designed to evaluate the intervention of the 4/3/2 activity in an Austrian EFL classroom. The project was conducted in a secondary school in Vienna and aimed to explore and enhance oral fluency among 14-year-old students through the implementation of the 4/3/2 activity. This chapter outlines the research questions, participants, setting and data collection methods. Furthermore, it provides a detailed description of the project's procedure, including the implementation of the 4/3/2 activity, along with the data collection and analysis methods.

7.1. Research questions

The primary aim of this action research study is to evaluate the effectiveness of the 4/3/2 activity in improving EFL learners' oral fluency. To assess its impact, both objective fluency measures and students' feedback are essential, as understanding students' perceptions is crucial for refining teaching strategies and enhancing learning outcomes (Santos 2023: 42). Additionally, identifying and addressing potential challenges encountered during its implementation is essential for its success. To guide this investigation, the following three research questions have been formulated:

- RQ1: How does the implementation of the 4/3/2 activity affect the fluency of Austrian EFL learners at the lower-secondary level in terms of speech rate, phonation-time ratio and number of filled pauses?
- RQ2: What are the perceptions of Austrian lower-secondary students regarding the usefulness of the 4/3/2 activity?
- RQ3: What challenges arise during the implementation of this activity, and how can they be addressed to optimise its effectiveness?

Together, these questions provide a multidimensional lens for investigating the 4/3/2 activity from three different perspectives: its measurable impact on learners' fluency, student

attitudes towards its use and the practical considerations required for successful implementation. This triangulated approach of data collection, which involves gathering data from three different sources, strengthens the validity of the findings and makes them more relevant for both educators and researchers in ELT (Burns 2010: 95-96).

7.2. Methodology

As outlined in the first chapter, this study uses action research to address the research questions as it is particularly suited to my dual role as both teacher and researcher. AR also facilitates the development of context-specific insights that improve classroom practices that can contribute to academic discussions. Additionally, AR's reflective and cyclical nature allows for continuous refinement of teaching strategies and enhancement of student outcomes (Burns 2010: 33).

In contrast to other research methodologies, AR offers a dynamic and flexible approach that can adapt to the changing needs of participants (Burns 2010: 13). While AR is relatively flexible, most researchers still adhere to the so-called 'research cycle', which consists of four key phases: planning, action, observation and reflection (see Figure 4).

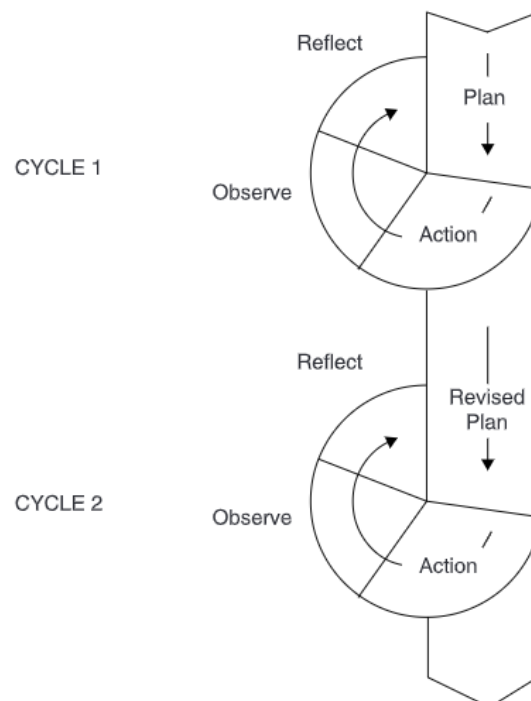


Figure 4 Cyclical AR model based on Kemmis and McTaggart (1988)

Figure 4 illustrates the dynamic and cyclical process of AR (Burns 2010: 8). The repetition of the research cycles allows teachers and researchers to refine their approach based on insights gained from previous cycles. In the planning phase, a specific challenge or area for improvement is identified in the teaching context, and a targeted plan of action is developed to address it. This is followed by the action phase, during which the planned interventions are implemented in the classroom over a set period. In the observation phase, data is collected on the effects of these interventions, with careful documentation of the context, actions and student responses to assess how the changes are impacting learning. Finally, in the reflection phase, the data is analysed to evaluate the outcomes of the actions, which can inform future cycles of the research. This research cycle is then repeated throughout the action research (see Figure 4).

7.3. Participants and setting

The participants in this AR study were 49 English as a Foreign Language (EFL) learners in grade 4 at a lower-secondary school in Vienna, aged between 13 and 14 years. These students have been studying English as a mandatory subject since grade 1, reaching an A2-B1 proficiency level according to the national iKM Plus (“individuelle Kompetenzmessung”) assessment, which is conducted by the Austrian Ministry of Education (see [iKM Plus](#)). The students come from three different classes, each with a maximum of 18 students. In one class, I am the primary English teacher, which means I teach independently, while in the other two classes, I work as part of a teaching team, collaborating with other English teachers. About two-thirds of the students speak German as their first language, while the remaining third speak German as a second language, making around one-third of the participants bilingual.

It is important to note that the students spent the first two years of their English education, i.e. from 2020 to 2022, in distance learning due to the COVID pandemic, which significantly limited their opportunities to practice speaking in person. The lack of personal interaction during these early years of language learning reduced their chances to develop essential speaking skills, such as spontaneous conversation and real-time communication. Furthermore, over the past four years, the students have had three different English teachers, which has required them to constantly adapt to different teaching styles and expectations.

This has likely played a role in the challenges they face in developing speaking proficiency. As a result, many students have expressed a strong desire for more opportunities to speak in class and engage in conversation.

7.4. Data collection process

To address the research questions, a triangulated approach was employed, collecting both observation and non-observation data to provide a thorough understanding of the 4/3/2 activity's impact. This approach involved collecting audio recordings of student speeches to measure fluency; conducting collaborative observations of student behaviour and engagement to identify implementation challenges; and administering an online questionnaire to gather students' perceptions of the activity's usefulness. This combination of methods ensured a well-rounded analysis of the intervention's effects and its practical challenges (see Burns 2010: 56).

To evaluate the effect of the 4/3/2 activity on students' fluency, audio recordings of their speeches were systematically collected. The students recorded their three consecutive monologues with their mobile phones and uploaded the sound files to a designated folder on MS Teams, which allowed for a more structured data collection process. To avoid unnecessary distractions, the speeches were only recorded during the pre-test and post-test. This way, the expected fluency gains could be directly compared. During the intervention phase, students practiced without the pressure of recording themselves, creating a more relaxed atmosphere that encouraged natural fluency development. In total, 294 audio recordings were collected (3 recordings during the pre-test, 3 recordings during the post-test, with 49 students).

To explore the challenges that arise during the implementation of the 4/3/2 activity and identify ways to optimise its effectiveness, collaborative observations were conducted by myself and two colleagues. With the help of detailed observation notes, we sought to explore potential obstacles and areas for refinement in how students interacted with each other and engaged with the activity. To ensure a systematic approach, we rotated our observation focus for each round: during the 4-minute round, we concentrated on engagement and participation across the whole class to identify potential issues with involvement or

understanding; in the 3-minute round, we focused on the students' speeches, observing whether they could manage their talks smoothly or faced difficulties such as hesitation or disorganisation; and in the 2-minute round, we examined how the increased time pressure affected their motivation and performance, noting signs of stress, frustration or adaptation. These observations were the basis for our reflections and continuous refinement of the activity (see Chapter 7.5.).

At the end of the intervention phase, a Google Forms questionnaire was distributed to gather feedback on participants' perceptions of the 4/3/2 activity, as well as their self-assessments of their English-speaking skills (see Appendix). Google Forms was chosen because the students were already familiar with the tool, ensuring ease of use and accessibility. The questionnaire was organised around two main themes: first, it explored students' experiences with the activity, including whether they found it enjoyable, if the topics were engaging, and whether the instructions were clear; second, it sought to understand students' self-assessment of their fluency, specifically whether they felt their fluency had improved. The format included a combination of multiple-choice questions, Likert scale items, and open-ended questions, allowing for the collection of both quantitative and qualitative data. This combination of data types offered a detailed insight into students' experiences with the 4/3/2 activity, highlighting their needs and preferences. To ensure clarity, the questionnaire was administered in German and piloted with two students to identify and resolve any potential issues or misunderstandings. A total of 49 students completed the questionnaire.

In short, the triangulated approach, including audio recordings, collaborative observations, and student feedback, enabled a comprehensive assessment of fluency gains, identified implementation challenges and revealed students' perceptions of the 4/3/2 activity, which highlighted both its effectiveness and areas for improvement.

7.5. Procedure

The AR project consisted of three phases: the pre-intervention phase, the intervention phase and the post-intervention phase. The pre-intervention phase included piloting the 4/3/2 activity, conducting the pre-test and preparing for the three-day intervention. The intervention phase involved implementing the 4/3/2 activity over three consecutive days, while the post-intervention phase consisted of the post-test and an online questionnaire (see Figure 5).

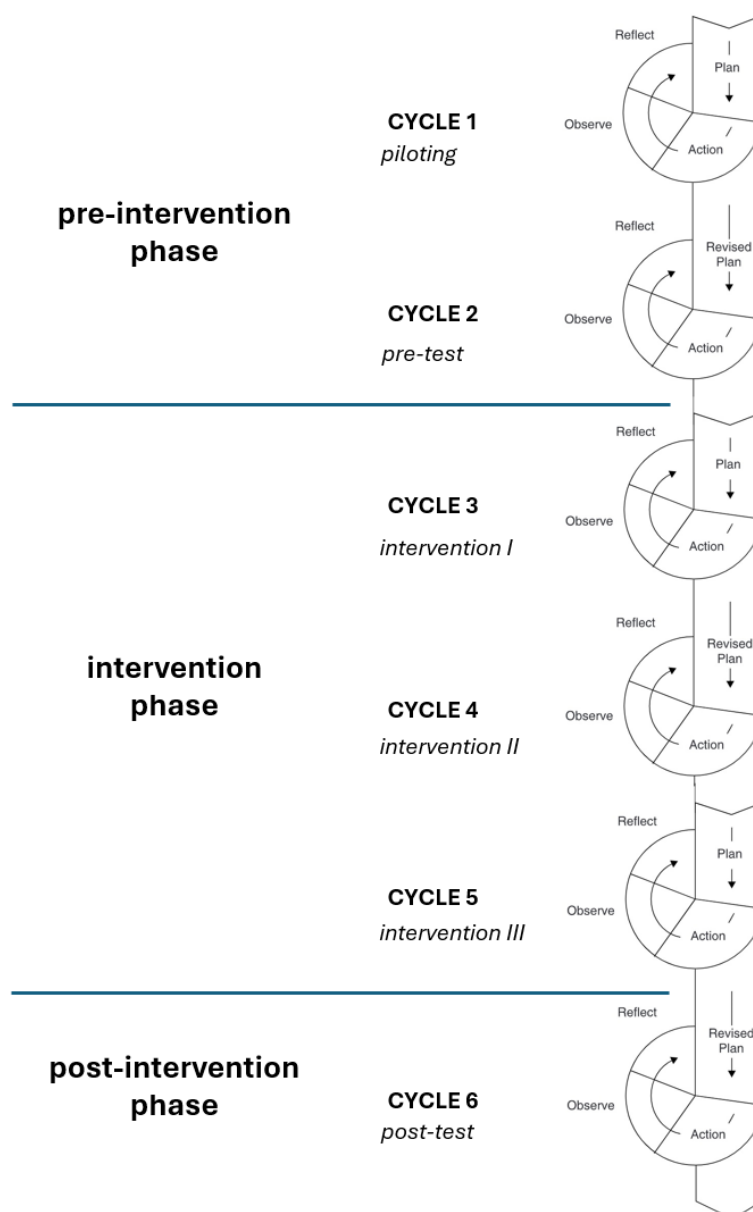


Figure 5 Procedure of the AR project

As shown in Figure 5, the 4/3/2 activity was implemented in all three phases. Each implementation formed its own research cycle, with planning, observation and reflection, as recommended in Burns' (2010) methodology. The pre-intervention phase included two cycles: the first cycle involved piloting the activity and the second focused on the pre-test. Both cycles were accompanied by collaborative observations and reflections to identify potential issues and refine the approach before the intervention. This phase also involved fluency-building exercises based on Thornbury's (2005) principles (see Chapter 4) and the initial administrative setup (see Chapter 7.5.1.). The intervention phase included three short-term interventions, delivered over three consecutive days, following the recommendations from de Jong & Perfetti (2011) and Suzuki (2021). Each of these interventions was conducted within its own research cycle (see Figure 5). After each session, the data collected and observations made were carefully reviewed, enabling adjustments to be made for the following sessions. During this phase, Thornbury's (2005) fluency-enhancing techniques were also incorporated to support the students' speaking development (see Chapter 4). In the post-intervention phase, students completed a recorded post-test and an online questionnaire. The questionnaire provided students with the opportunity to reflect on their experiences, offer feedback on the action research project and self-assess their fluency progress. Afterward, the pre-test and post-test recordings were analysed and compared to evaluate the impact of the intervention on students' speaking fluency.

In the following chapters, the three phases will be described in more detail, with a focus on the activities, methods and data analysis procedures involved in the action research project.

7.5.1. Pre-intervention

The pre-intervention phase was a critical period in ensuring the success of the AR project. During this phase, several preparatory steps were undertaken to set up the project: the administrative setup, introducing and piloting the 4/3/2 activity in the classroom, developing effective speaking prompts and administering a recorded pre-test. Furthermore, collaborative observations during the piloting and pre-test enabled us teachers to identify challenges the students might face and continuously refine and improve the implementation of the 4/3/2 activity. These steps ensured that we were well-prepared for the intervention phase and able to address any potential challenges before moving forward.

The administrative setup for the AR project was an important first step in ensuring that the project was properly structured. This phase involved the following tasks: establishing a communication channel with all participants, scheduling the project and obtaining consent.

The first task in the administrative setup was establishing a communication channel with all the people involved in the project via a Microsoft Teams group, which the students were already familiar with, as they regularly use it for other purposes. The group included all participants and colleagues involved in the project to keep everyone informed and engaged. Through this platform, students were provided with a clear overview of the project's objectives, timeline and expectations and received daily updates regarding upcoming tasks, deadlines and any adjustments made based on ongoing reflections. Additionally, essential documents such as the consent form, instructional materials and guidelines for assignments were uploaded in the group. For data collection, assignments were set up within Teams where students could upload their audio recordings, facilitating the submission process and making it easier to track progress. A Q&A forum was created to foster collaboration and allow students to ask questions and share their insights. The consistent use of Microsoft Teams provided a well-organised and supportive environment for the AR project.

The next administrative task was to coordinate the scheduling of the intervention sessions with my colleagues. Since the project involved students from three different classes, it was essential to ensure that all English lessons occurred on the same day to simplify logistics. To facilitate this, we scheduled the piloting, pre-test, interventions and post-test for the same day across all three classes. The intervention was designed to take place over three consecutive days, with each session lasting approximately 50 minutes. With support from the school administration, a detailed timetable was created, outlining the dates for the pre-test, the three intervention sessions and the post-test.

Once the project schedule was finalised, both students and their parents were informed about the project details. As all participants were minors, consent was required from both the parents and the school principal. Informed consent was sought from the parents through a written consent form, which outlined the project procedures and was provided to the students for communication with their parents (see Appendix). The consent form specified that audio recordings would be made as part of the project, assured confidentiality and

clarified that participation would have no impact on students' grades. While all students were invited to participate in the 4/3/2 speaking activity, only those who provided consent were required to record themselves. Students who opted not to participate were not asked to submit recordings. Upon completion of the project, the results were shared with the students, ensuring transparency regarding the study's outcomes.

After completing the administrative setup, the next step was to familiarise the students with the 4/3/2 speaking activity. To ensure that the students understood both the structure and purpose of the task, my colleagues and I dedicated one lesson in each class to explaining and practicing the activity. During these lessons, we also took first observational notes on students' performances to assess how they engaged with the task and to identify potential areas for improvement.

To introduce the activity effectively and raise awareness of its benefits, my colleagues and I began by demonstrating the 4/3/2 activity ourselves. We modelled the task by speaking about our last holidays, providing students with a concrete example of how the activity works in practice. This demonstration was rooted in Thornbury's theory of awareness-raising tasks (see Chapter 4.2.) and Boers' (2014: 231) recommendation (see 5.2.), which stresses the importance of exposure to authentic language in developing fluency. According to Thornbury, authentic language—such as teacher talk—provides students with real, unscripted examples of how language is used naturally in context (Thornbury 2005: 42). Similarly, Boers (2014: 231) argues that this type of input is vital for learners, as it helps them internalise language patterns and develop the fluency necessary for spontaneous communication.

Following our brief demonstration, the students were asked to perform the 4/3/2 activity themselves. To this end, the classroom was rearranged, with all the tables moved together to form one large table. The students were then divided into two groups: one half seated on the right side of the table, and the other on the left in a format similar to speed dating. The speaking prompt for the activity was "Tell your partner about your last holidays," chosen to engage students with a personal and relatable topic. We then explained the structure of the 4/3/2 activity (see Chapter 5.1.): each student would take turns delivering a monologue, beginning with a 4-minute round, then 3 minutes and finally 2 minutes in subsequent turns.

To support students in managing their time, we projected an online stopwatch onto the whiteboard, so everyone could monitor their progress. After each timed round, students switched seats, with the speakers moving to a new position while listeners remained in place. Following three rounds, listeners became speakers and continued the same format. This hands-on practice helped students become familiar with the structure of the 4/3/2 activity.

After the introductory lessons, my colleagues and I met to review our initial observations and reflect on the activity's effectiveness. We identified four areas for improvement. First, we noticed that students' willingness to speak was strongly influenced by their relationship with their conversation partner. In all three classes, students seemed less motivated to engage when paired with someone who they did not consider a friend. Second, the seating arrangement around a large table was ineffective; students frequently distracted their elbow partners with comments or jokes, which disrupted the activity. Third, the prompt "Talk about your Easter holidays" was too vague and led many students to run out of ideas or struggle with what to say. A more focused prompt, perhaps with space for notes and guiding questions, would have helped guide their responses more effectively. Finally, we observed that students often turned the monologue task into a dialogue by asking each other questions, which went against the intended structure of the activity. These initial observations were invaluable in refining the implementation of the 4/3/2 activity.

Following our observations during the introductory lessons, it became clear that the initial speaking prompt, "Talk about your last holidays," was too broad, which is why many students struggled to find enough content. To address this, our team decided to develop more focused speaking prompts based on students' personal interests to ensure they had ample material to discuss during each round of the 4/3/2 activity.

My colleagues and I started by collecting topics of interest from the students during a plenary discussion, where they were invited to suggest topics they were passionate about. After comparing our students' responses, we identified a range of topics, including movies, holidays, school, personal future, hobbies, culture and traditions, mobile phones and last summer vacation. Table 3 shows the eight topics that we selected for our speaking prompts:

Table 2 Topics of speaking prompts

Topic A	Your favourite movie(s) and series
Topic B	Your ideal holiday
Topic C	Your school
Topic D	Your hobbies
Topic E	Culture and traditions
Topic F	Your future
Topic G	Mobile phones
Topic H	Your last summer holiday

The goal of this approach was to gather ideas for speaking tasks that reflected students' real-life experiences, thereby fostering more authentic and effective communication. Based on the students' responses, eight speaking prompts were developed using Tran and Saito's (2024: 345) structure for speaking tasks. Each prompt included reflective and guiding questions to help students develop their responses and ensure they had enough material to discuss. The prompts were designed to be both focused and flexible, offering enough structure to encourage elaboration while allowing for creative expression.

The final step of the pre-intervention phase involved the pre-test. Based on the insights gained from the initial observations, four major adjustments were made to optimise the conditions for the test. First, the student pairings were reconsidered. To encourage more active participation, students could choose their listening partners. Next, the classroom setting was modified: each pair was assigned a separate table to avoid distractions and ensure that the conversations of one pair did not interfere with others. The instructions were then clarified, with a specific emphasis on the fact that the 4/3/2 activity is a monologic task, where the listening partner listens but does not respond. Finally, the new speaking prompts were used to ensure that the students would have topics that motivated them to speak more freely and elaborately.

The administration of the pre-test involved three steps. First, before recording the first monologue, each student was asked to complete a test recording to ensure the technical

setup was functioning correctly. This step allowed students to familiarise themselves with the recording process and provided an opportunity to troubleshoot any technical issues before the actual pre-test. Then, students were given a choice of four topics (A, B, C, and D), allowing them to select one that genuinely interested them. To ensure consistency across both the pre-test and post-test, students were instructed to choose one topic and commit to it for both tests. For example, if a student selected Topic B for the pre-test, they were expected to use the same topic for the post-test. Finally, students were given a 4-minute preparation period, during which they could take notes and use a dictionary, before delivering three monologues. Each monologue was recorded on mobile phones and then uploaded to Microsoft Teams for later analysis.

After the pre-test, our team met again to review the collaborative observations and listen to several recordings, which helped us identify both positive aspects and areas that needed improvement. One of the strengths of the session was the way students were paired. Pairing friends created a more relaxed and engaging atmosphere, which encouraged students to participate more actively. Additionally, seating the pairs at different tables reduced distractions and helped maintain focus. The speaking prompts also worked well, as they involved topics that genuinely interested the students. However, several challenges arose during the pre-test. First, a great number of students had difficulty structuring their talks, often answering the guiding questions in a straightforward, chronological order. This approach led to monologues that were disjointed and lacked fluency. Second, the noise in the classroom also impacted the quality of the audio recordings, and it became clear that students needed to hold their phones closer to their mouths for clearer sound. Third, the new seating arrangement caused some confusion about how students should rotate between activities, suggesting that clearer instructions were necessary. Finally, time management also proved to be an issue. Some students struggled to keep track of time, especially since the remaining time was not always announced consistently. The students asked for a time check every minute. These new insights provided valuable guidance for refining the process moving forward.

7.5.2. Intervention phase

The intervention phase was shaped by insights gained during the pre-intervention phase, where several challenges were identified: students had difficulty structuring their talks, found the partner rotation process confusing and struggled with time management due to inconsistent time reminders. To address these issues, relevant literature on fluency and speaking instruction (see Chapter 4) was consulted, leading to practical adjustments. To help students with structuring their talks, a handout was created based on Richards' (2015: 408) recommendation for genre-specific instruction (see Chapter 4.2.). This handout outlined the key features of monologues and presentations, offering strategies such as how to introduce a topic, transition between points and conclude effectively. It also provided sentence starters and linking phrases, adapted from a handout by UC Davis, CA, and tailored to monologue-style speaking (see Appendix; also see Thornbury on teaching lexical chunks). To address the issues with partner rotation, clearer instructions were provided, and the remaining time was announced at regular intervals to help students manage their speaking time more effectively. These adjustments were made to tackle the challenges observed during the pre-test, with the aim of enhancing the overall effectiveness of the 4/3/2 activity.

The first lesson of the intervention began with a 15-minute teacher input, during which the handout on organisational linking devices was discussed. This provided the students with guidance on how to structure their talks effectively. They were encouraged to incorporate these devices into their speaking so that their monologues were more structured. Following this input, students were given the choice between prompt E or F. After selecting their preferred topic, they were paired up and asked to perform the 4/3/2 activity. This session marked the beginning of the intervention, with the students applying the newly learned strategies in a structured speaking task.

After the first intervention, our team met again to share observations. The first intervention session revealed both successes and areas for improvement. On the positive side, the instructions for rotating partners were much clearer this time and the transitions between activities went smoothly. Many students effectively used the organisational linking devices provided in the handout, which helped them structure their talks better. Additionally, announcing the remaining time proved beneficial for students' time management, enabling

them to better pace their responses. However, there were still areas that required improvement. A number of students did not make full use of the 4-minute preparation time, and when asked, they mentioned that the duration felt too long. This may have affected their ability to incorporate the linking devices effectively. Some students were distracted during the preparation phase, either chatting with their partners or lacking necessary materials, such as pens, to take notes. These issues highlighted the need to manage preparation time more effectively, giving all students the chance to fully engage with the task and make the most of the strategies provided.

During our team discussion, we agreed that the teacher input and the four minutes of preparation time were insufficient for students to fully internalise and effectively use the linking devices. After reviewing the relevant literature, we identified Thornbury's "best recording" activity as a highly effective and easily implementable strategy for addressing this issue. This task involves students recording an initial monologue, reflecting on their performance, and then re-recording it multiple times to improve fluency, with the final recording showcasing their progress. Due to time constraints, we decided to assign this activity as homework. Students were asked to record a 2-minute monologue at home using the same prompt they had worked with in class and upload their "best" recording to Microsoft Teams for review. Most students successfully completed the task and demonstrated improved use of linking devices and greater fluency in their speeches. By offering this additional practice opportunity, we were able to support students in using the linking devices.

The second intervention began with a brief teacher input, similar to the first session. Students who had completed their homework were acknowledged and praised for their efforts and commitment. Those who had not submitted their recordings were given the opportunity to upload them on the day of the session, ensuring that everyone had the chance to complete the task. Following this, the key points on structuring their talks were reviewed, with an emphasis on the importance of using linking devices and maintaining focus during their presentations. Students were then given a choice between two topics—Topic G or Topic H—allowing them to select the subject they felt most comfortable talking about. As in the previous session, students were paired with friends and performed the 4/3/2 activity.

Our observations during the second intervention revealed both progress and areas for further improvement. On a positive note, students demonstrated greater confidence in using the linking devices, likely due to the extra practice afforded by the home recording task. Most students were able to speak for the full four minutes, showing improved time management and preparation. However, a significant issue arose with the role of the listeners. While speakers were actively engaged in their monologues, many listeners were distracted, often playing on their phones, which undermined the core requirement of active listening. In this context, active listening involves both linguistic aspects, such as backchanneling, and paralinguistic features, such as maintaining eye contact (see Thornbury 2005: 9). Moving forward, we recognised the need to set clearer expectations for listeners, including maintaining eye contact and providing backchannel feedback, to ensure they remain focused and engaged throughout the activity.

The third intervention built upon the lessons learned from the previous sessions and aimed to further address the challenges identified during the second intervention. By this stage, students had become more familiar with the 4/3/2 activity structure and the strategies for organising their talks. To reinforce this, a brief input session was held before the speaking activity, revisiting the essential organisational strategies and linking devices introduced earlier. Additionally, students were explicitly reminded that active listening was a vital part of the task. They were encouraged to engage attentively with their peers' presentations, both to support the speakers and to enhance the collaborative nature of the activity. Finally, students were again given the option to choose between two prompts—I or J.

By the third intervention, there was noticeable progress in several areas. Students were using organisational devices more effectively, which resulted in more structured and fluent talks. Most students were able to fill the full four minutes of speaking time, showing improved time management and benefiting from the additional practice both in class and through home recordings. There was also a clear improvement in how students used their four-minute preparation time, with the majority staying focused and engaged. Another positive change was in the role of listeners. Unlike in the second intervention, when many students had been distracted by their phones, listeners this time were more attentive, helping the speakers to stay focused. However, despite these improvements, signs of motivation and fatigue started

to show. Many students appeared mentally drained, which affected their energy levels and enthusiasm.

In our group discussion and reflection, we recognised that student fatigue and waning motivation were becoming an issue, particularly in the later stages of the intervention. To address this, we chose to introduce a brief energiser, specifically the "Stop-Walk" activity (see [Stop-Walk energiser](#)), along with small rewards, such as sweets, to boost engagement during the post-intervention (post-test) session.

7.5.3. Post-intervention

The post-intervention phase consisted of two main components: a post-test and an online questionnaire. The post-test was designed to assess the students' progress and provide a direct comparison with their performance during the pre-test. By replicating the structure of the pre-test, it was possible to compare any changes in their speaking skills in terms of fluency. Following the post-test, the students completed a brief online questionnaire on Google Forms to reflect on their experiences with the intervention. This allowed them to provide valuable feedback on the process, as well as their perceptions of their own development. The combination of the post-test and the survey allowed us to gather both quantitative data on their speaking performance and qualitative insights into their engagement and overall experience with the intervention.

To address the issue of fatigue and declining motivation, which had been observed during the third intervention, the post-test session began with the Stop-Walk energiser. This quick activity was intended to re-energise the students and help them refocus, while a small reward was promised as an additional incentive.

The post-test itself was conducted in a similar format to the pre-test. Students were asked to perform the 4/3/2 activity three times, each time recording themselves on the same prompt they had chosen for the pre-test. This allowed for a direct comparison of their performance before and after the intervention. As in the pre-test, students were given four minutes of preparation time to organise their thoughts and structure their responses. Based on

observations from earlier sessions, we reminded students to hold their recording devices close to their mouths to ensure better sound quality for the recordings. After completing the recordings, students uploaded their audio files to Microsoft Teams for review.

Our collaborative observations revealed that most of the issues from previous sessions had been addressed and resolved. Many students were using organisational devices more confidently and in a more structured manner, and they seemed to manage their speaking time more effectively. However, despite these improvements, some students still did not use these devices and showed signs of demotivation during the post-test, particularly in the second half of the session when energy levels dropped.

After completing the post-test, the students were invited to fill out a brief online questionnaire hosted on Google Forms. The survey took approximately 10 minutes to complete and was designed to gather feedback on the intervention from the students' perspective. It included questions about their experience with the 4/3/2 activity, their use of organisational strategies, perceived progress and engagement throughout the intervention (see Appendix). The questionnaire also asked for their opinions on the teaching methods, the home recording task, and the overall effectiveness of the intervention. All questions were mandatory to ensure full responses.

In summary, the post-intervention phase provided both a direct assessment of student progress through the post-test and an opportunity to gain valuable feedback through the online questionnaire. While the post-test revealed measurable improvements in students' speaking performance, it also highlighted ongoing challenges with motivation, which need to be addressed in future interventions. The feedback from the questionnaire offered further insight into students' experiences and provided guidance for refining the intervention moving forward.

7.6. Data analysis

In this chapter, the analysis of the data collected for the study is described. A total of three distinct sets of data – comprising both observation and non-observation data – were analysed: student audio recordings, responses from the online survey and collaborative observation notes. This triangulated data set was crucial for addressing the research questions outlined in Chapter 7.1. While the audio recordings and the online questionnaires were analysed after the intervention phase, the collaborative observations were analysed throughout the whole AR process, allowing for a continuous reflection and adaptation of the 4/3/2 activity. The following provides a detailed explanation of the methods and tools used to analyse each data set.

7.6.1. Analysis of audio recordings

To investigate how the 4/3/2 activity influences the fluency of Austrian EFL learners at the lower-secondary level (see RQ 1), the audio recordings from both the pre-test and post-test were analysed, focusing on fluency improvements, and the results were then compared. Given the fact that almost 300 audio recordings were submitted, the data analysis was limited to the 2-minute recordings, as this allowed for a more manageable dataset while still providing sufficient data to evaluate these important fluency measures (see Albarqi & Tavakoli 2022: 221).

The analysis of the audio recordings centred on three fluency measures: speech rate, phonation-time ratio and the number of filled pauses. These temporal variables were chosen for two main reasons: first, they are good indicators of UF (Kormos 2006: 162); second, they can be easily measured with an automated script for PRAAT provided by de Jong et al. (2021). That is, the recordings can be uploaded to PRAAT and by running the two scripts, the software identifies the number of syllable nuclei, phrases and filled pauses (see Chapter 6.4.).

Before analysing the audio recordings, three preparatory steps were undertaken. First, all audio files were anonymised (e.g., Student A) and assigned unique identifiers (e.g., '1' for pre-test recordings and '2' for post-test recordings) to ensure confidentiality. Second, the recordings were processed using Cleanvoice AI (<https://cleanvoice.ai/>), an AI-powered tool designed to reduce background noise and enhance speech clarity. This step was necessary, as

the recordings were made in a classroom environment with significant background noise, and it was important to ensure that only the students' voices were analysed, free from any acoustic interference. Finally, the audio files were converted from MP3 to WAV format to guarantee compatibility with the speech analysis software PRAAT.

After these preparatory steps, the cleaned audio files were analysed with the speech analysis software PRAAT. The scripts that were used (see Chapter 6.4.) generate a spectrogram alongside a text grid, which includes information such as syllable nuclei, phrasing and the number of filled pauses (see Figure 6).

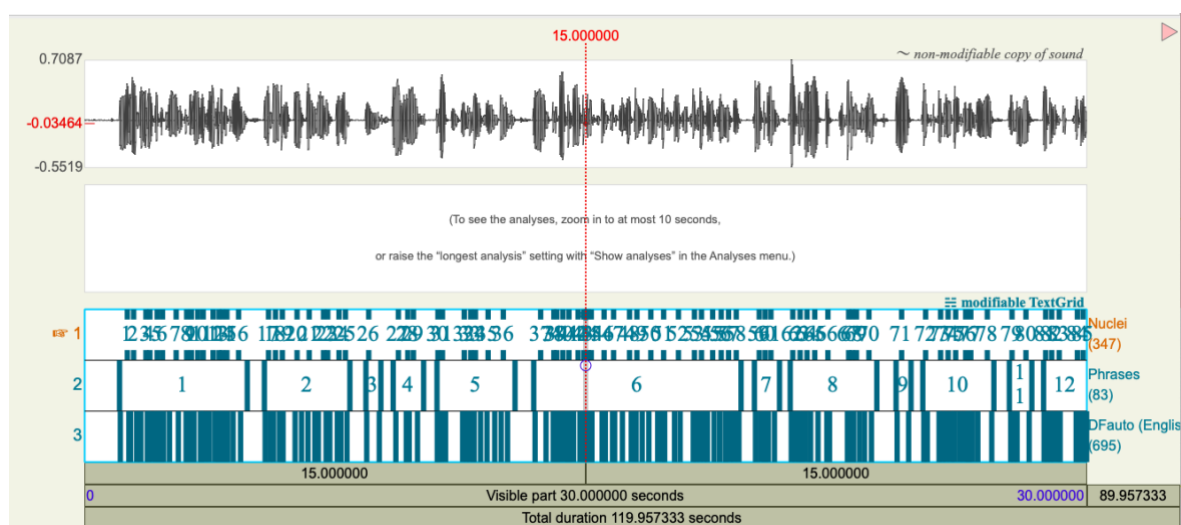


Figure 6 PRAAT analysis of one sound file

As can be seen in Figure 6, the analysis provides several key pieces of information. At the top of the interface is the spectrogram, which visually represents the audio data. Below the spectrogram, three tiers of information are displayed. The first tier shows the number of syllable nuclei, labelled as 'Nuclei' in this example. In the second tier, the number of phrases, defined as any sequence of words spoken without a pause longer than 0.25 seconds is indicated. By default, the script uses a 0.3-second pause for this classification, but for this study, the value was adjusted to 0.25 seconds to align with established literature (see Tavakoli & Wright 2020: 51). The number of filled pauses (see DFauto) is displayed in the third tier. Additionally, the data can be converted into a table format for further analysis, as explained in Chapter 8.1.2.

Finally, to validate the PRAAT results, the audio recordings were transcribed using Riverside AI, an AI-powered transcription tool (see <https://riverside.fm/transcription>). This user-friendly, free online tool is highly effective at accurately identifying filler words like *ehm* and *ahm*, facilitating the counting of these pauses. The transcriptions were then cross-checked with the PRAAT output to ensure consistency and accuracy throughout the data.

To measure speech rate, the number of syllable nuclei in each audio recording was counted using PRAAT. As de Jong & Wempe (2009: 385) points out, syllable nuclei are a reliable indicator of fluency, as they typically correspond to the vowel sounds in syllables, which are crucial for distinguishing syllables. The speech rate, expressed in syllables per minute, was calculated by dividing the total number of syllable nuclei by the duration of the speech in minutes. Since not all recordings were exactly 2 minutes long—some were slightly shorter or longer—the actual length of the recordings was converted to minutes by dividing the total duration (in seconds) by 60. For instance, if a student produced 300 syllable nuclei in 118 seconds, the duration would be $118 \div 60 = 1.96$ minutes. To obtain the speech rate, the total number of syllable nuclei (300) is divided by the duration (1.96 minutes), resulting in a speech rate of approximately 153 syllables per minute.

To calculate the phonation-time ratio, the total time spent speaking was divided by the overall speaking time. Since the PRAAT script does not automatically provide the phonation-time ratio, additional steps are required. First, the tier on phrases (i.e., tier 2) must be extracted from the original text grid to create a new text grid, here referred to as 'TextGrid Phrases.' (see Figure 7). This new text grid lists all the phrases from the audio file along with their durations. The resulting data can then be exported as a text file, which can be opened and analysed in Excel.

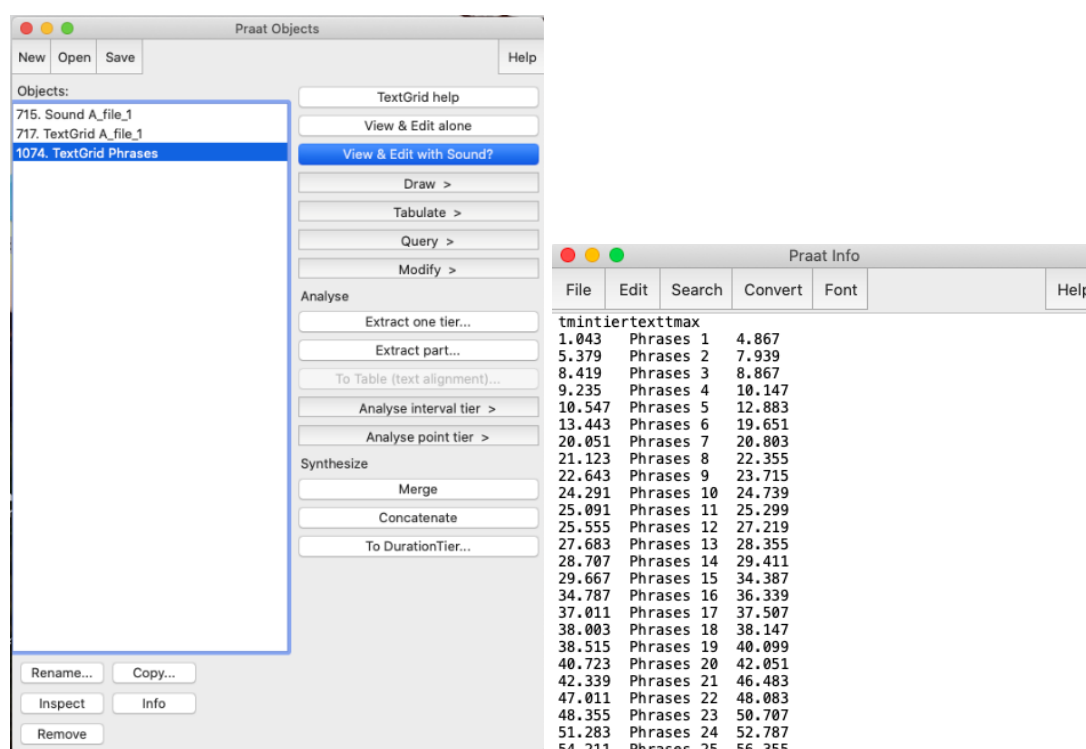


Figure 7 Tier 2 in table form

As shown in Figure 7, PRAAT provides the start and end times for each phrase. With the help of Excel, the total duration of each phrase can be calculated, the durations summed and the result divided by the total speaking time to determine the phonation-time ratio.

The PRAAT script also counts the number of filled pauses in a sound file. However, due to residual background noise that could not be entirely eliminated, the PRAAT analysis produced some false positives. To resolve this issue, each audio file was transcribed using Riverside AI, a transcription software known for reliably detecting filled pauses such as *ehm*, *um* and *ehr*. Then, the transcriptions were cross-checked against the PRAAT results and corrected as needed.

7.6.2. Online questionnaire

The online questionnaire consisted of two sections. The first section focused on students' experiences with the 4/3/2 activity, using a mixed-method approach that combined Likert-scale responses for quantitative analysis and open-ended questions for qualitative insights. Students rated a series of statements about their experiences on a Likert scale, with options

ranging from 'strongly agree' to 'strongly disagree', including intermediate responses: 'agree', 'neutral' and 'disagree'. In addition to the Likert-scale items, the section contained three open-ended questions, inviting students to suggest areas for improvement, provide additional comments, and describe any challenges they faced during the 4/3/2 intervention. To analyse the open responses, Burns' (2010) approach to qualitative data analysis in action research was applied. The open-ended responses were examined using inductive coding, a method central to an emic approach. This process involved categorising the qualitative data according to emerging themes and patterns that reflected students' personal experiences and insights (see Burns 2010: 107). By adopting this insider perspective, the analysis allowed the data to guide the creation of categories, resulting in a deeper understanding of the students' thoughts and feelings. The integration of both quantitative and qualitative methods provided a more comprehensive and meaningful view of their learning experiences.

The second section focused on the students' self-assessment of their fluency, providing them with six statements to evaluate: speaking fluently without pauses, expressing themselves clearly without hesitation, making only a few self-corrections or repetitions, barely using filler words, telling stories and experiences fluently and coherently, and speaking spontaneously and effortlessly; for each statement, students rated their agreement on a scale from 'strongly agree' to 'strongly disagree.'

7.6.3. Collaborative observations

To find answers to the final research question, which focuses on the challenges encountered during the implementation of the 4/3/2 activity and how they can be addressed to optimise its effectiveness, the observational notes taken during the classroom sessions (see Chapter 7.5.) were analysed through inductive coding (see 7.6.2.). This involved carefully reviewing the notes and identifying and describing recurring challenges or patterns that emerged during the implementation of the activity. The challenges were then grouped into broader categories such as 'internal' (i.e. student-related) and 'external' (i.e. classroom-related) challenges, based on their thematic similarities (see Chapter 8.3.).

8. Results

This chapter presents the results of the data analysis, which draws on three distinct datasets: students' audio recordings from the pre-test and post-test, analysed with the speech-analysis software PRAAT; responses from an online Google Forms questionnaire; and observation notes from collaborative observations, analysed using inductive coding. The findings show significant improvements in learners' fluency, along with generally positive attitudes towards the 4/3/2 activity. Additionally, the analysis of observation notes identified both strengths and areas for improvement in the activity's implementation. The following chapters will provide a more detailed exploration of the results from each dataset.

8.1. Student audio recordings

The first research question of this study focused on learners' fluency improvements, specifically in relation to speech rate, phonation-time ratio and the number of filled pauses. The next chapters compare and describe the results from the analysis of the pre-test and post-test audio recordings, focusing on the changes observed in these fluency measures.

8.1.1. Speech rate

The analysis of the audio recordings shows significant improvements in speech rate (measured in syllables per minute) from the pre-test to the post-test (see Figure 8). The results are displayed in a boxplot, which provides a clear view of the data's distribution and central tendency, while also accounting for any outliers.

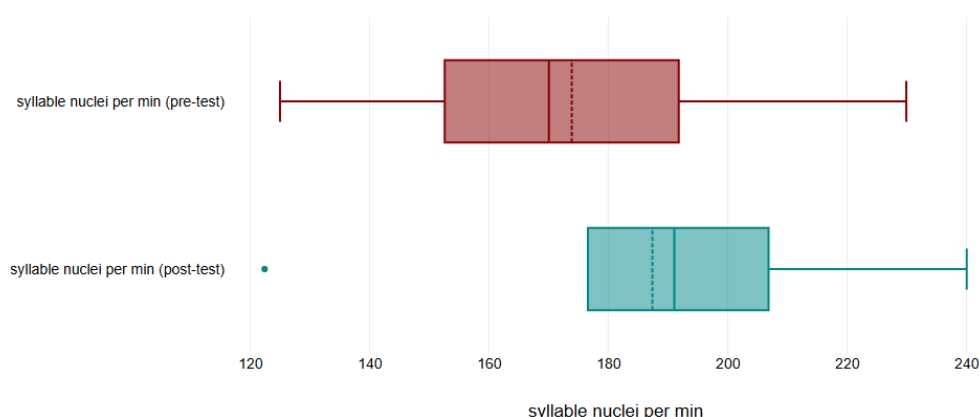


Figure 8 Speech rate results (in syllables/min) for the pre-test and post-test

As can be seen in Figure 8, the boxplots for the pre-test and post-test speech rates show clear differences in the data distribution. In the pre-test, the speech rates range from a minimum of 125 syllables per minute to a maximum of 230 syllables per minute. The middle 50% of the data falls between 153 and 192 syllables per minute, with the median at 170. This suggests that most participants in the pre-test had a moderate speech rate. In the post-test, the minimum value is 123 syllables per minute and the maximum is 240 syllables per minute, which is slightly higher than the pre-test. The middle 50% of the data falls between 177 and 207 syllables per minute, with the median at 191. This shows a noticeable shift to higher speech rates in the post-test, as the median and quartiles are all higher than in the pre-test.

The main difference between the two boxplots is the rise in the median and quartiles in the post-test, showing that participants spoke faster overall. While the range remains similar in both tests, the post-test reveals a higher concentration of participants with faster speech rates, especially in the upper quartile. This suggests that, although the group as a whole improved, those with higher initial rates showed the greatest increase. Overall, the data points to an improvement in speech rate from the pre-test to the post-test, with participants speaking faster in the latter.

8.1.2. Phonation-time ratio

Similar to the speech rate results, the PRAAT analysis shows notable improvements in the phonation-time ratio between the pre-test and post-test (see Figure 9). As before, the results are presented in a boxplot to visualise the data distribution and account for any outliers.

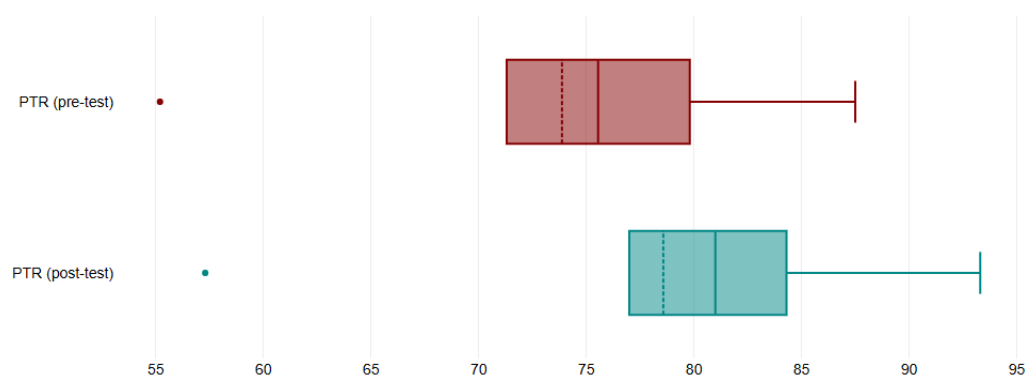


Figure 9 Phonation-time ratio (PTR) for the pre-test and post-test

The boxplots for the pre-test and post-test phonation-time ratios show clear differences in both central tendency and spread. In the pre-test, the ratio ranges from 55.20 to 87.50, with the first quartile at 71.30, the median at 75.55 and the third quartile at 79.81. The distribution is relatively symmetric. In the post-test, the range widens slightly to 57.30–93.30, with the first quartile at 77.00, the median at 81.00, and the third quartile at 84.30. This shows an overall increase in phonation-time ratios, with the middle 50% of participants now ranging from 77.00 to 84.30, which is higher than in the pre-test. The higher median in the post-test (81.00 vs. 75.55) indicates that, on average, participants had a longer phonation-time ratio. Overall, the comparison reveals an increase in phonation-time ratios, marked by a shift toward higher values and greater variability.

8.1.3. Number of filled pauses per minute

Regarding the number of filled pauses per minute, the audio analysis showed an average decrease from the pre-test to the post-test. Figure 10 illustrates the results for the number of filled pauses per minute in both tests, highlighting the participants' fluency improvements.

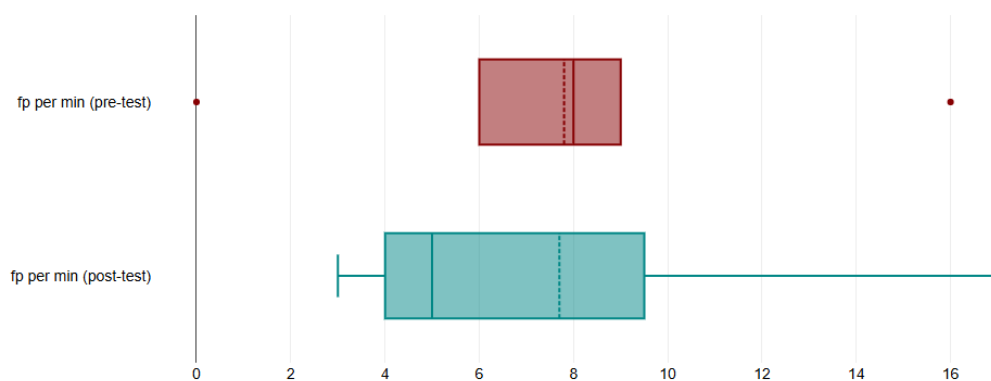


Figure 10 Number of filled pauses per min (fp/min) for the pre-test and post-test

When comparing the two boxplots (see Figure 10), notable differences can be observed in both the central tendency and the distribution of the data. In the pre-test, the filled pauses range from a minimum of 0 to a maximum of 16, with the first quartile (Q1) at 6, the median at 8 and the third quartile (Q3) at 9. This suggests that the majority of participants in the pre-test had between 6 and 9 filled pauses per minute. In the post-test, the minimum increases slightly to 3, and the maximum increases slightly to 17, but the central tendency shifts

downward. The first quartile drops to 4, the median decreases to 5, and the third quartile rises slightly to 9. This shows that most participants in the post-test produced fewer filled pauses, with the middle 50% of the data now falling between 4 and 9 filled pauses per minute, compared to 6 and 9 in the pre-test. While the overall range is similar between the two tests, the post-test reveals a clear reduction in the median and a slightly narrower interquartile range, suggesting that the data is more tightly clustered around lower values. In summary, the post-test boxplot shows a reduction in the number of filled pauses compared to the pre-test, with participants generally producing fewer filled pauses, reflecting an overall improvement in their speech fluency.

8.2. Perceptions of the 4/3/2 activity

The second research question of this study explored how the participants perceived the usefulness of the 4/3/2 activity. The results from the online questionnaire provide important perspectives on how students viewed the activity and its effectiveness in supporting their fluency development. The questionnaire was divided into two sections: one in which participants evaluated the 4/3/2 activity and shared their experiences during the intervention, and another in which they self-assessed their fluency after the intervention. These findings will be described in more detail in the following chapters.

8.2.1. Evaluating the 4/3/2 activity

The first section of the questionnaire consisted of four items in different formats: a Likert scale where students rated seven statements about their experience with the activity, a multiple-choice question asking them to identify challenges encountered during the activity, and two open-ended questions inviting suggestions for improvements and additional comments about the activity.

The results from the Likert scale ratings are presented in Figure 11 below. In general, students provided a positive evaluation of the 4/3/2 activity, with particularly strong feedback regarding its effectiveness in improving speaking skills and boosting confidence.

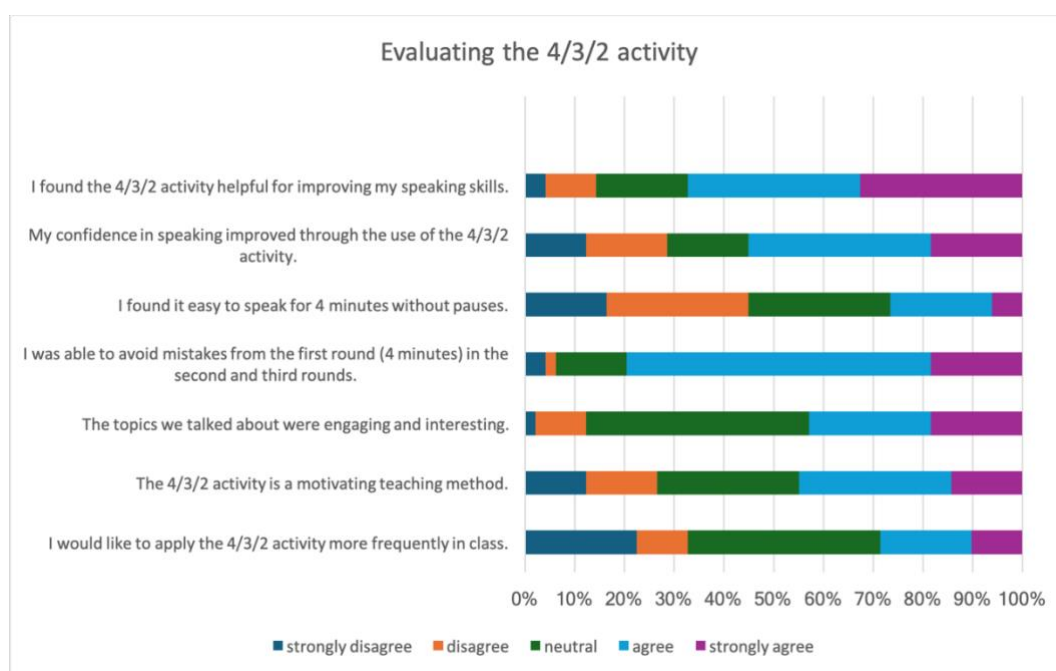


Figure 11 Results from the Likert scale ratings

When asked if the 4/3/2 activity was useful for developing speaking competence, the majority of students (67.3%) either agreed or strongly agreed, suggesting they found the activity beneficial for their speaking skills. However, 32.6% remained neutral or disagreed. When it comes to confidence in speaking, 55.1% reported an increase owing to the activity, while 28.5% were neutral and 16.3% disagreed.

While the majority of students reported positive results in skill improvement and confidence, they also faced challenges. A notable difficulty was speaking for the full 4 minutes without pauses, with 44.9% of students finding this task difficult. Only 26.5% agreed or strongly agreed that speaking uninterrupted for 4 minutes was easy. On a more positive note, 79.6% of students felt they were able to avoid mistakes from earlier rounds, suggesting that the iterative nature of the 4/3/2 activity contributed positively to their improvement over time.

The topics discussed during the activity were generally well-received, with 63.3% of students agreeing or strongly agreeing that they were interesting. A smaller percentage (24.5%) was neutral, while 6.1% disagreed. As for motivation, 53.1% agreed or strongly agreed that the

4/3/2 activity was motivating, indicating a generally positive response. However, 28.6% remained neutral, and 18.4% disagreed, suggesting that the activity's motivational impact varied among students.

Finally, when asked if they would like to apply the 4/3/2 activity more frequently in class, responses were more mixed. While 28.6% of students expressed a desire for more frequent use, a larger group (61.2%) were neutral or disagreed, suggesting that for most students, the frequency of use was not a top priority.

In the next item of the questionnaire, students were asked to identify the challenges they encountered during the 4/3/2 activity, using a multiple-choice format. The question, "What challenges did you experience when using the 4/3/2 activity?" offered a list of common challenges identified in the literature, with an option for students to add any additional challenges they faced. Figure 14 illustrates how many students reported each challenge.



Figure 12 Most common challenges encountered by students

As shown in Figure 14, the most common difficulty was speaking for 4 minutes, with 67.3% of students reporting this as a challenge. Finding the correct words was also a significant issue, affecting 63.3% of participants. Rotating partners presented a challenge for 32.7% of students, while time pressure and anxiety were similarly problematic for 30.6% of students each. Boredom was the least reported challenge, with only 2% of students identifying it as an issue.

The third item was an open-ended question where students were invited to suggest potential improvements for the implementation of the 4/3/2 activity. The specific question asked was: "Do you have any ideas or suggestions on how we can improve the 4/3/2 activity in class?" The responses were analysed using inductive coding (see Chapter 7.6.2.), which resulted in three main categories: no suggestions, partner selection, and topic selection (see Figure 12).

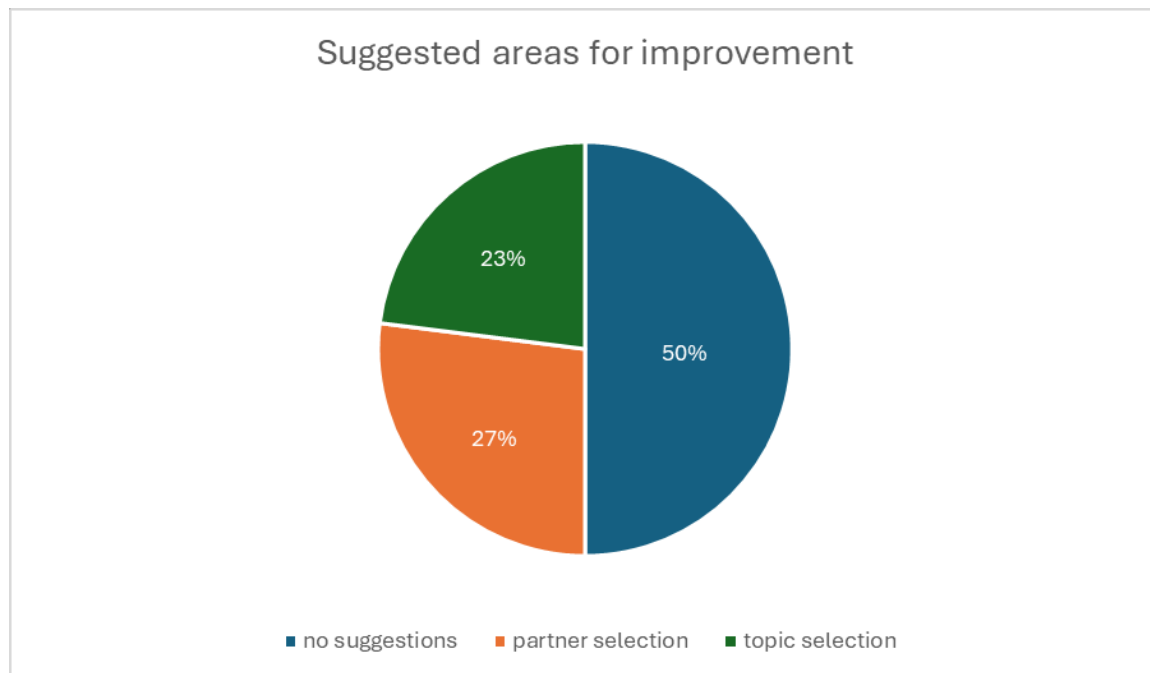


Figure 13 Suggestions for improving the implementation of the 4/3/2 activity

The first category, 'no suggestions' includes responses where respondents expressed overall satisfaction with the activity, with several participants noting that it was effective as it stood. For instance, comments like "No, I think it is a very effective and great teaching method" (R4) and "It's fine as it is" (R10) highlight that some students appreciated the structure and purpose of the activity and felt that no significant adjustments were needed. This category accounted for 23% of responses.

The second category, 'partner selection', emphasises the importance of allowing students greater autonomy in choosing their partners. Responses such as "Choose your own partner so that you feel more comfortable" (R5) and "Speak with partners you feel safest with" (R15) show that students prefer to work with peers they are comfortable with. Some participants also suggested working in smaller groups (R1, R3, R5, R9, R20) or pairing with friends to enhance the experience (R12, R17, R33). This category, comprising 27.3% of responses,

suggests that personal comfort and rapport are seen as critical for maximising the activity's effectiveness.

The third category, 'topic selection', focuses on the content of the discussions, with several participants recommending more diverse or self-selected topics. Comments like "The topic should perhaps be something chosen by the students themselves" (R40) and "Provide more topics to choose from" (R8) indicate that some students felt that a greater variety of or personally relevant topics could improve their engagement and facilitate more meaningful discussions. This category, representing 50% of responses, points to a strong preference for greater autonomy and relevance in discussion topics.

Finally, the fourth item gave participants the opportunity to share any additional comments or suggestions about the 4/3/2 activity. The question posed was: "Do you have any further comments or suggestions about the 4/3/2 activity?" The open-ended responses were analysed and grouped into three main categories: 'no comments/neutral,' 'positive feedback,' and 'mixed or critical feedback.' Figure 13 provides a summary of these responses.

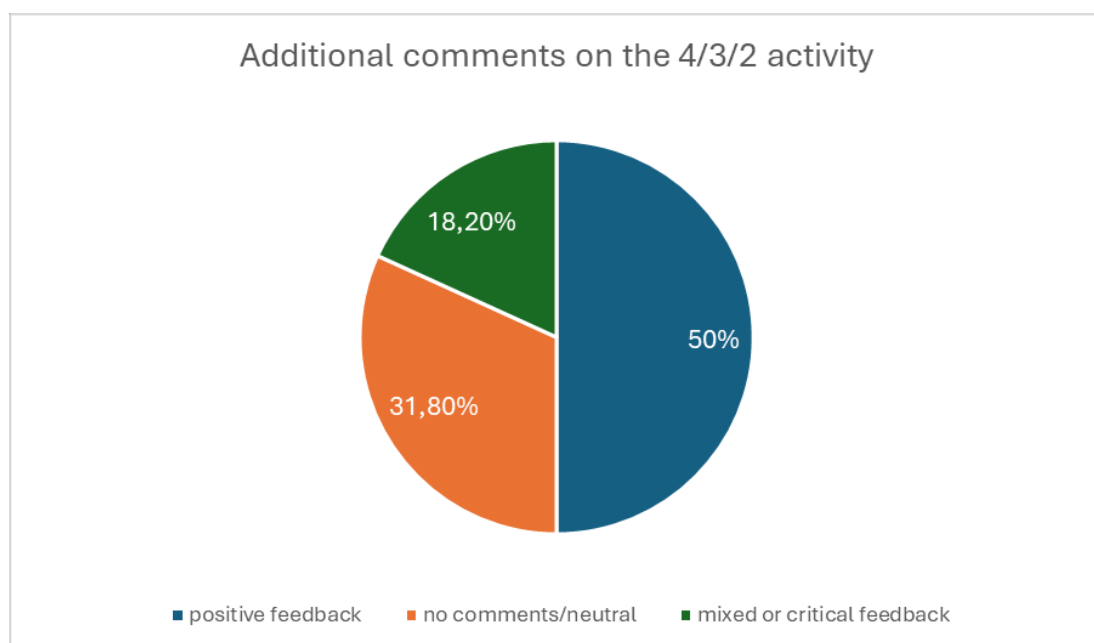


Figure 14 Additional comments on the 4/3/2 activity made by students

The largest proportion of responses (50%) was grouped under the 'positive feedback' category, reflecting participants' satisfaction with the activity. Many students described it as "a helpful method" (R19, R40) and "very helpful" (R45), recognising its value for improving

fluency. Specific comments included "it helped me a lot to speak more fluently" (R49) and "a helpful method for improving fluency while speaking" (R35). Some respondents also noted the enjoyable and engaging aspects of the activity, such as "it was cool" (R4) and "it's cool and helpful" (R20).

A smaller proportion (31.8%) of responses were categorised as 'no comments/neutral'. These responses mainly indicated that participants had no additional feedback or expressed general contentment with the activity. Comments such as "no" (R11), "not really" (R1) or "No, everything is great!" (R10) were included here, reflecting either a lack of further thoughts or simply a neutral perspective.

Finally, 18.2% of responses were classified under 'mixed or critical feedback'. These participants expressed ambivalence or found the activity less impactful for their needs. For instance, one comment noted, "I found it unnecessary and boring. I wouldn't want to do it again" (R5), while another stated, "I already knew most of it" (R33). Other comments highlighted the novelty of the activity, with responses such as "It was a new experience" (R48) and "It was interesting to listen to others" (R14).

In brief, the evaluation of the 4/3/2 activity through the student questionnaire revealed generally positive feedback, particularly regarding its impact on speaking skills and confidence. The majority of students found the activity beneficial, though challenges such as maintaining continuous speech for four minutes and finding the right words were commonly reported. Suggestions for improvement highlighted the importance of partner and topic selection, with many students expressing a preference for more autonomy in both areas. While a significant portion of participants provided positive feedback on the activity, a smaller group voiced mixed or critical responses. Overall, the findings suggest that the 4/3/2 activity is a valuable tool for fluency development, but certain adjustments could enhance its effectiveness and student engagement.

8.2.2. Self-assessment fluency

While the first section of the questionnaire focused on the students' perceptions of the 4/3/2 activity, the second section addressed their self-assessment of fluency. Given that fluency is a multifaceted construct, a half-open format was used, presenting students with six

statements related to different aspects of fluency—speed fluency, breakdown fluency and repair fluency. Students rated these statements on a Likert scale ranging from 5 (strongly agree) to 1 (strongly disagree). The results are summarised in Figure 15.

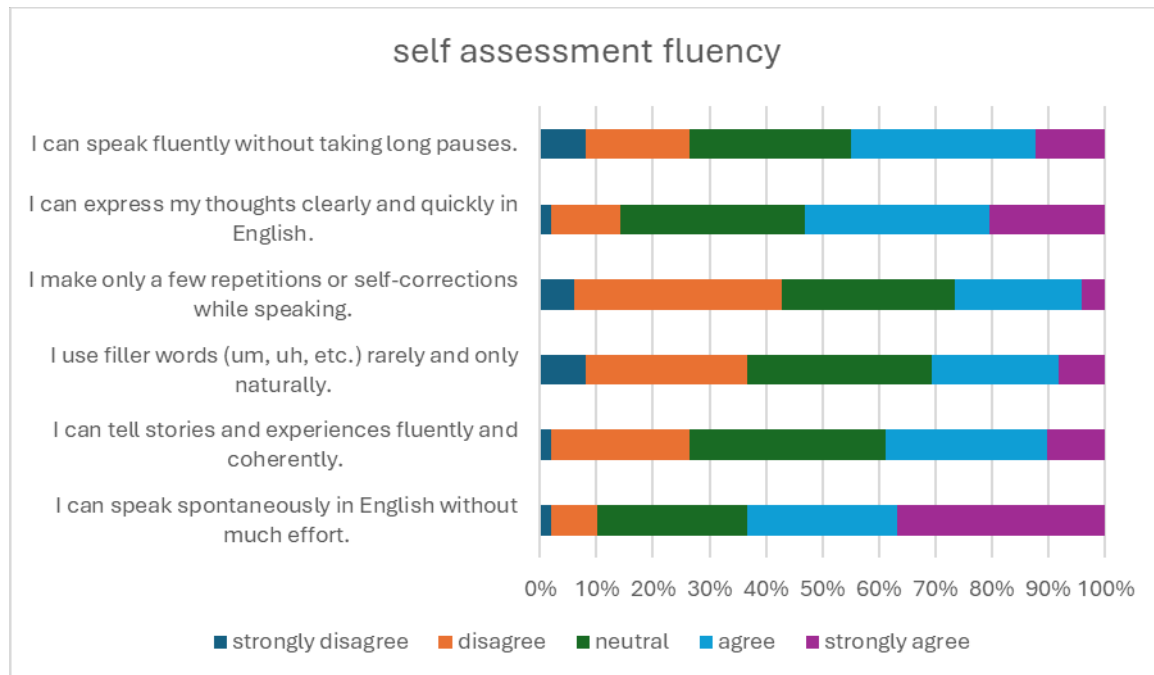


Figure 15 Fluency self-assessment

As shown in Figure 15, students' self-assessment of their fluency after the 4/3/2 intervention revealed mixed but generally positive perceptions of improvement across various speaking aspects. When asked whether they could speak fluently without long pauses, 44.9% agreed or strongly agreed, while 26.5% disagreed or strongly disagreed, indicating that some participants still struggled with speaking without longer pauses. Similarly, 53.1% of students agreed or strongly agreed about their ability to express thoughts clearly and quickly, though 32.7% remained neutral or disagreed.

Regarding fluency issues such as repetitions or self-corrections, 27.6% agreed or strongly agreed that they made few repetitions, but 42.9% disagreed or strongly disagreed, indicating that many students still faced challenges in minimising these interruptions. The use of filler words was another area of concern, with 36.7% of students agreeing they used them rarely and naturally, while the same percentage disagreed or strongly disagreed, suggesting that filler words remained a frequent issue for many.

On a more positive note, 39.2% of students felt their ability to tell stories and experiences fluently had improved, though 22.4% disagreed or strongly disagreed, and 24.5% remained neutral. Furthermore, 53.1% of students reported they could now speak spontaneously in English with less effort, showing significant progress in this area. Only 8.2% disagreed or strongly disagreed, while 26.5% were neutral.

In summary, while many students reported that they spoke more fluently, expressed their thoughts more clearly, and spoke more spontaneously, challenges remained in reducing repetitions, self-corrections and the use of filler words.

8.3. Collaborative observations

The analysis of the collaborative observation notes identified several challenges encountered during the 4/3/2 activity, which could be categorised into two main areas: internal challenges, which arise from students' personal experiences, motivation and skills; and external challenges, linked to the context of the classroom environment and the speaking activity, such as the prompts, classroom environment and clarity of instruction (see Figure 16).

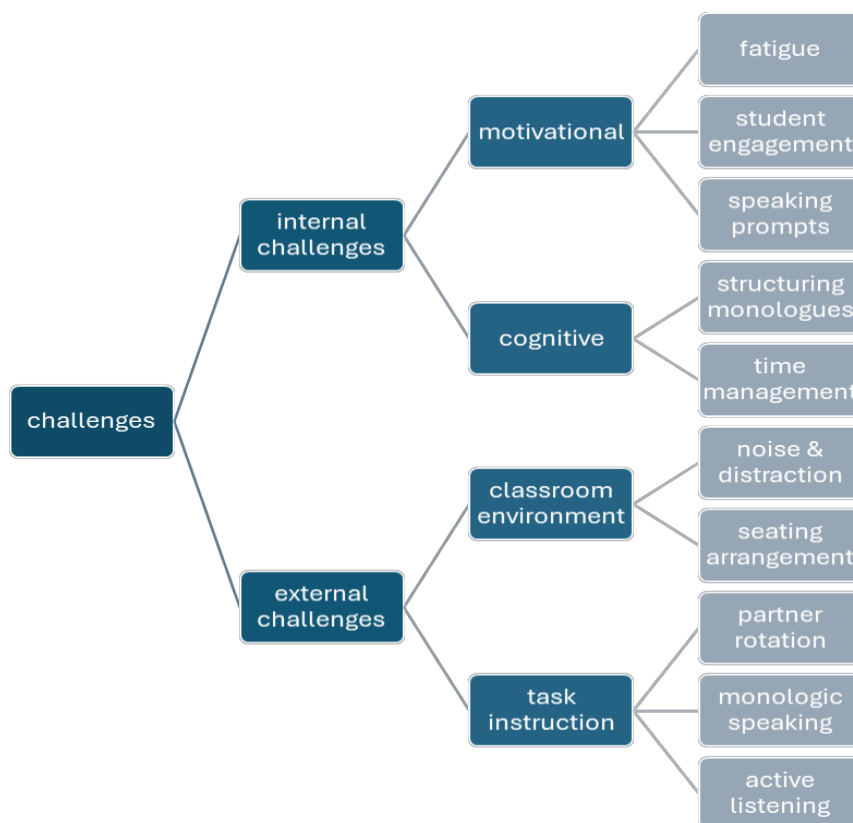


Figure 16 Challenges observed during the 4/3/2 activity

As shown in Figure 16, internal challenges were primarily motivational and cognitive in nature. In terms of motivation, some students were less willing to engage actively, particularly when paired with conversation partners they did not consider friends. Additionally, a noticeable decline in interest could be observed after a few days of the intervention, likely due to the repetitive nature of the task. The initial speaking prompts also proved to be unappealing to many students, which contributed to their difficulty in filling the required four minutes of speaking. Regarding cognitive challenges, students struggled with organising their thoughts and structuring their talks effectively. The absence of time cues further complicated the task, as students had difficulty managing their speaking time, resulting in rushed or incomplete presentations.

External challenges, in contrast, were related to the classroom environment and the clarity of task instructions. Classroom-related issues included confusion over seating arrangements, classroom noise and distractions from peers, which interfered with focus and engagement. Instructional challenges emerged as well, with students often being unclear about the specific requirements of the 4/3/2 activity, such as the need for active listening, the monologic nature of the task (as opposed to dialogue) and the procedures for rotating partners.

Most of these challenges were addressed continuously during the intervention phase and collaborative observations revealed that many challenges could be effectively mitigated. To address motivational challenges, pairing students with friends and developing speaking prompts based on topics they were passionate about seemed to increase their engagement. However, efforts to reduce fatigue through energisers and rewards were only partially successful, as some students still showed signs of demotivation and tiredness. Cognitive challenges were tackled by providing preparation time, offering a handout on how to organise a talk and allowing for additional practice. The inclusion of time cues also helped students better manage their speaking time. Despite these efforts, some students continued to struggle, as evidenced by their voice recordings, which revealed gaps in performance. External challenges were largely resolved through targeted interventions. Modifying the seating arrangement helped reduce distractions from elbow partners, while refining task instructions clarified important aspects of the activity. Clearer guidance on the role of active listening - emphasising that listeners should refrain from interaction or interruption- helped ensure that the task's monologic nature was respected. Additionally, improved instructions on partner

rotation helped eliminate confusion, leading to smoother transitions and more focused participation throughout the activity.

To sum up, the collaborative observations revealed both internal challenges, such as motivation and cognitive difficulties, and external challenges, including classroom dynamics and unclear instructions. While most of these challenges could be addressed through targeted interventions such as adjusting seating, refining instructions, and providing a handout, some issues persisted, impacting student engagement and performance during the 4/3/2 activity.

9. Discussion

This chapter examines the findings from the data analysis and relates them to existing literature on L2 fluency development and instruction (see Part I). By doing so, it addresses the research questions and provides a broader context for understanding the outcomes of the intervention. The discussion begins with the observed fluency gains, followed by the students' perceptions of the intervention, and concludes with the findings from the collaborative observations.

9.1. Fluency gains

The first research question focused on the impact of the 4/3/2 activity on the fluency of Austrian EFL learners at the lower-secondary level, specifically in terms of speech rate, phonation-time ratio and the number of filled pauses. The analysis of students' audio recordings reveals notable improvements in all three areas (see Chapter 8.1.). The speech rate increased substantially, with the median rising from 170 to 191 syllables per minute. Similarly, the phonation-time ratio showed significant gains, with the median increasing from 75.55 to 81.00, reflecting longer durations of continuous speech. Furthermore, the median number of filled pauses decreased from 8 to 5 per minute, indicating smoother and less hesitant speech delivery. These improvements support the view that repeated practice within a timed framework pushes even younger EFL learners to process language more efficiently.

The results of this study align with findings from previous studies (see Chapter 5.3.). For instance, Nation (1989) and Arevart and Nation (1991) observed that repetitive speaking activities like the 4/3/2 activity effectively enhance fluency. Likewise, de Jong and Perfetti (2011) demonstrated that structured fluency training fosters measurable improvements in speed fluency and speech flow. More recently, Boers (2021) and Zhang et al. (2021) corroborated these findings, underlining the benefits of timed repetition tasks for reducing pausing and improving speech fluidity. Santos (2022) also emphasised the pedagogical value of the 4/3/2 activity in fostering automaticity in L2 speech.

However, it is crucial to consider these findings within a broader context. The 4/3/2 activity was implemented alongside other interventions, such as teacher talk, targeted handouts and

other awareness-raising activities, all designed to enhance learners' fluency (see Chapter 7.5.). Collaborative observations (see Chapter 8.3.) and audio recordings suggest that these supplementary strategies also played a significant role in supporting fluency development. Unlike studies that isolate the 4/3/2 activity, this research treated it as part of a broader framework designed to achieve wider fluency goals. While the 4/3/2 activity clearly contributed to the observed fluency gains, it was not the sole factor in the students' progress. The integration of various strategies provided students with multiple opportunities to practice, reflect and refine their speaking skills. Thus, the implementation of the 4/3/2 activity, together with additional awareness-raising activities, has had a significantly positive impact on the students' fluency, particularly in terms of speech rate, phonation-time ratio and number of filled pauses.

9.2. Students' perceptions of the intervention

The second research question examined the perceptions of Austrian lower-secondary students regarding the effectiveness of the 4/3/2 activity. In general, the analysis of the online questionnaire reveals that the students' perceptions largely align with the teachers' observations and the analysis of the audio recordings, which suggests a strong level of validity. Additionally, the relatively large sample size ($n=49$) strengthens the reliability of the findings.

When asked to evaluate the 4/3/2 activity, approximately two-thirds of the students (67.3%) found it both useful and interesting. However, despite this positive feedback, 70% of students expressed neutral to strongly negative views about repeating the activity in the near future. While this may seem contradictory, previous research (see Chapter 5.2.) has shown that task repetition can become tiresome indeed if overused. Given that the 4/3/2 activity was implemented across five consecutive English lessons, it is little surprising that this effect occurred. Although the activity included some variation—such as changing conversation partners and shortening the time frame—the repetitive nature of the activity over multiple lessons likely contributed to a sense of fatigue.

What is noteworthy is that many students expressed dissatisfaction with the constellation of conversation partners, a concern not commonly addressed in previous studies, likely due to

differences in participant age. While most studies on the 4/3/2 activity have focused on university-level students, this study involved younger EFL learners. These students may be more reluctant to interact with peers outside their close friend groups, particularly those of the opposite gender, due to the social dynamics of puberty. This issue may lessen as students grow older.

Regarding the challenges students faced during the intervention, their feedback closely mirrored the issues identified during collaborative observations (see Chapter 8.3.). Students often mentioned issues such as sustaining speech for four minutes, finding appropriate vocabulary, and managing time pressure — difficulties that were categorised as internal challenges (see Chapter 8.3.). However, two interesting points emerged: first, fatigue was mentioned by only 2% of participants, suggesting it was not perceived as a significant issue. Second, nearly one-third of students identified anxiety as a challenge, a concern not directly observed during collaborative sessions. This discrepancy underscores the value of integrating student feedback with observational data to gain a fuller picture of the challenges encountered.

When it comes to students' self-assessment skills, it is notable that their self-perceptions largely matched the results of the study. Most students reported an improvement in their speaking abilities, which was also reflected in the data (see Chapter 8.1.). The only aspect where students were less confident was in the number of pauses, with some expressing concern about their frequency. This may stem from the perception that pauses indicate dysfluency although pauses are a common feature in native speech.

9.3. Challenges encountered during the implementation

The third research question examined the challenges encountered during the implementation of the 4/3/2 activity and explored potential solutions to optimise its effectiveness. The analysis of the observational data identified significant issues and areas for improvement. It became evident that the most significant challenges were internal, stemming from students' individual experiences, while the external challenges could largely be addressed with adjustments to the activity's context.

While many of the external issues outlined in Chapter 8.3. could be addressed through targeted interventions—such as adjusting seating arrangements and the constellation of conversation partners, providing time cues, or revising speaking prompts—the internal difficulties proved more challenging to resolve. One major internal issue was decreasing interest and fatigue. As previously discussed (see Chapter 5.2.), fatigue can often result from repetitive tasks and this effect can be intensified if the intervention lacks sufficient motivational appeal. In this case, students appeared to lack intrinsic motivation or even internalised extrinsic motivation to engage fully with the task. While repetition can be effective in promoting fluency, its impact diminishes if students do not perceive the activity as meaningful or rewarding. This problem of fatigue might have been less pronounced if the intervention had a clearer, more tangible purpose, such as preparing students for an oral exam or presentation, where the goal is more clearly defined and motivating. Another way to increase motivation could be to spread the interventions over several days or weeks. (Hanzawa & Suzuki 2023: 467).

Another internal challenge was the students' difficulty in structuring their talk. Throughout the intervention, it became clear that the awareness-raising activities designed to help students structure their monologues were too brief to be effective. Although additional practice was assigned as homework, many students did not use the organisational devices discussed in class. This highlighted the need for more time and guidance in developing these skills. To address this, it would have been more effective to conduct the awareness-raising activities more extensively prior to the 4/3/2 intervention. The reasoning behind this is that the 4/3/2 activity is typically used in the second and third stages of speaking development (see Chapter 4), which focus on the repetition and the automatisisation of newly learned language features. Introducing awareness-raising activities during the intervention phase proved to be less effective because students were already focused on consolidating their skills. A better approach would have been to integrate these activities in the pre-intervention phase, giving students a stronger foundation for structuring their talk. Additionally, teaching active listening skills – critical for engaging in meaningful conversations – should have been introduced at this stage, ensuring students understand the importance of active listening.

10. Conclusion and implications for teaching

The 4/3/2 activity has received considerable attention in L2 research and English Language Teaching due to its potential positive impact on the fluency development of EFL learners. Various studies have shown that the repetitive nature of the activity, combined with a progressively decreasing time frame, can significantly enhance learners' short-term fluency. This action research study specifically aimed to investigate the effectiveness of the 4/3/2 activity as a short-term intervention within the context of Austrian lower-secondary EFL learners. To achieve this, three objectives were formulated: to evaluate the effectiveness of the 4/3/2 activity in fostering fluency development, to explore students' perceptions and experiences during the interventions and to identify and address potential challenges encountered during its implementation. The interventions were implemented over five consecutive English lessons with 49 students and a triangulated approach was employed to gather observation and non-observation data to address the objectives: student audio recordings during the pre-test and post-test, an online questionnaire at the conclusion of the intervention and collaborative observations during the intervention.

Regarding the effectiveness of the activity, the analysis of the audio recordings indicates that the implementation of the 4/3/2 activity, combined with other awareness-raising strategies such as teacher talk or targeted handouts, has led to measurable improvements in learners' fluency. This is evidenced by significant increases in speech rate and phonation-time ratio, as well as a reduction in the number of filled pauses. These results affirm the positive impact of the activity on short-term fluency development, aligning with previous research that underscores the benefits of the 4/3/2 activity.

As regards the students' perceptions of the 4/3/2 activity, the responses in the questionnaire were largely favourable, with many participants describing the activity as both useful and engaging. However, the feedback also revealed several challenges, most notably the choice of conversation partners. This issue has not been addressed in prior research and suggests that social dynamics play a crucial role when implementing the 4/3/2 activity with younger EFL learners. This insight is particularly relevant for educators, as it emphasises the importance of considering students' comfort and preferences when implementing the activity.

In terms of potential challenges during the implementation of the 4/3/2 activity, the collaborative observations identified both internal and external factors, with internal challenges related to the students' individual experiences and external challenges linked to the practical aspects of the activity's implementation. Notably, the study revealed two major challenges that have not been extensively discussed in previous research: decreasing motivation and fatigue due to task repetition, as well as difficulties in structuring monologues effectively. These insights highlight areas for improvement that can enhance the overall effectiveness of the activity in future implementations.

When implementing the 4/3/2 activity with young EFL learners, several important teaching recommendations should be considered to maximise its effectiveness. Most of the challenges observed in this study could likely have been mitigated through more focused preparation prior to the intervention. This includes incorporating awareness-raising activities, teaching lexical chunks, and introducing organisational strategies, as well as clearly explaining the underlying principles of the activity, such as partner rotation and active listening. These components should be carefully communicated, especially to younger learners, to ensure they understand the rationale behind them. Additionally, speaking prompts should be thoughtfully designed to avoid confusion and encourage engagement. Managing group dynamics is equally important, which involves determining suitable group constellations and providing time cues during the activity to maintain a smooth flow and reduce stress. To address potential fatigue and enhance motivation, the activity could be spaced out over several sessions or implemented strategically before an oral exam. By addressing these areas, teachers can optimise the 4/3/2 activity as an effective tool for promoting oral fluency.

11. Limitations and future directions

By and large, the results of this study demonstrate the effectiveness of the 4/3/2 activity in an Austrian lower-secondary school context. While these findings largely align with previous research, certain limitations must still be taken into account. This chapter will briefly address these limitations and suggest potential directions for future research.

First, the results of this study are not directly comparable to those of prior research because of methodological differences. This study was conducted as part of an action research project, whereas earlier studies were often conducted in the field of applied linguistics. For instance, unlike many previous studies, this project did not include a control group, a common feature of controlled experiments on the 4/3/2 activity. That is why the potential influence of external factors cannot be entirely excluded. However, while the absence of a control group limits direct comparisons, the consistent improvements observed across most students suggest that the 4/3/2 intervention was overall effective.

Second, the audio analysis, while informative, provides only a partial insight into students' fluency development. The study measured speech rate, phonation-time ratio and the number of filled pauses, but it did not account for breakdown fluency measures, which could have offered a more comprehensive assessment. Due to the limited scope of this project, these aspects of fluency could not be explored. Furthermore, the study does not address long-term fluency gains. While the results indicate an improvement in students' short-term fluency, with significant progress observed between the pre-test and post-test, they do not make any claims about the long-term effects of the intervention, even though studies such as de Jong & Perfetti (2011) suggest that such improvements may last for up to four weeks. That is, the findings reflect progress in selected fluency measures but do not encompass all aspects of fluency or its durability over time.

Finally, the questionnaire data should be interpreted with caution. While the responses generally support the findings from collaborative observations and audio analysis, the questionnaire as such has inherent limitations, as highlighted by Dörnyei & Dewaele (2023). Open-ended questions often elicited brief responses, likely due to the participants' young age and resulting fatigue, which led to a lack of depth and nuance in capturing their experiences.

Additionally, self-reporting bias may have influenced the findings, as students might have overstated their fluency gains or minimised challenges to present themselves more favourably or align with perceived social expectations. This bias is reflected in the discrepancy between the Likert scale responses, where 63.3% of students strongly agreed or agreed that the topics were interesting, and the open-ended responses, 50% of which focused on the need for better topic selection, suggesting a gap between students' socially desirable answers and their true preferences. While acknowledging these drawbacks, the questionnaire provided important perspectives on students' perceptions of the 4/3/2 activity, adding an essential qualitative dimension to the study.

Despite its limitations, this action research project provides a clearer understanding of the use and effectiveness of the 4/3/2 activity in a real-world secondary school setting. What is more, it points to future directions in research that could be addressed regarding the 4/3/2 activity. One possibility could be the inclusion of more fluency measures, particularly by exploring breakdown fluency (e.g., pause frequency and duration), which would help capture more temporal variables and provide a clearer understanding of how the 4/3/2 activity impacts different dimensions of fluency. Furthermore, conducting longitudinal studies, potentially extending until the upper-secondary level, would be essential to assess whether the fluency gains achieved through the activity are sustained over time and whether re-engagement with the activity could promote long-term improvements.

To gain a deeper understanding of students' experiences, future research could include in-depth interviews with students, offering richer insights into their perceptions and challenges with the activity. Additionally, filming classroom sessions and conducting video analysis would provide a more detailed view of student interactions, teacher facilitation and group dynamics, helping to capture non-verbal cues and classroom behaviours that might affect fluency development. These methods could offer a broader perspective on the effectiveness of the 4/3/2 activity, improve its implementation, and contribute to a more comprehensive understanding of fluency development in language learning.

This research is particularly valuable because it addresses gaps in the existing literature by exploring the practical application of the 4/3/2 activity in a real-world classroom setting. While previous studies have largely focused on controlled environments or theoretical

aspects of fluency development, this study offers insights that are directly relevant to EFL teachers working with young learners in diverse and dynamic classroom contexts. The findings not only inform teaching practices but also highlight relevant factors, such as social dynamics and task-related challenges, that can impact the success of fluency-building activities.

References

- Ahmadian, Mohammad Javad; Tavakoli, Mansoor. 2011. "The effects of simultaneous use of careful online planning and task repetition on accuracy, complexity, and fluency in EFL learners' oral production". *Language Teaching Research* 15(1), 35-59.
- Ahmadian, Mohammad Javad. 2011. "The effect of 'massed' task repetitions on complexity, accuracy and fluency: Does it transfer to a new task?" *Language Learning Journal* 39(3), 269-280.
- Albarqi, Ghadah; Tavakoli, Parvaneh. 2023. "The effects of proficiency level and dual-task condition on L2 self-monitoring behavior." *Studies in Second Language Acquisition* 45(1), 212-33.
- Arevart, Supot; Nation, Paul. 1991. "Fluency improvement in a second language". *RELC Journal* 22(1), 84-94.
- Bao, Gui. 2023. "Factor structures of speed and breakdown fluency in EFL learners' story retelling performances". *International Review of Applied Linguistics in Language Teaching* 61(2), 631-54.
- Boers, Frank. 2014. "A reappraisal of the 4/3/2 activity". *RELC Journal* 45(3), 221-235.
- Boersma, Paul; Weenik, David. 2007. Praat: doing phonetics by computer. (Version 6.4.25). [Computer Program]. <http://www.praat.org/> (8 Dec. 2024).
- British Council. 2023. "IELTS Speaking band descriptors". https://takeielts.britishcouncil.org/sites/default/files/ielts_speaking_band_descriptors.pdf (10 Oct. 2024).
- Bundesministerium für Bildung, Wissenschaft und Forschung (BMBWF). 2021. „Leistungsbeurteilungsverordnung“. <https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=10009375> (10 Oct. 2024).
- Burns, Anne. 2010. *Doing action research in English language teaching: a guide for practitioners*. New York: Routledge.
- Bygate, Martin; Samuda, Renata. 2009. "Integrative planning through the use of task-repetition". In Ellis, Rod (ed.). *Planning and task performance in a second language*. Amsterdam: John Benjamins, 37-64.
- Chambers, Francine. 1997. "What do we mean by fluency?". *System* 25(4), 535-544.
- Chie, Ogawa. 2021. "Revised 4/3/2 task: fluency training with formulaic language in the EFL classroom". *Journal of Asia TEFL* 18(4), 1108-1127.
- Chon, HeeCheong; Sawyer, Jean; Ambrose, Noline G. 2012. "Differences of articulation rate and utterance length in fluent and disfluent utterances of preschool children who stutter". *Journal of Communication Disorders* 45(6), 455-467.
- Cleanvoice.ai. 2024. *Cleanvoice: AI-powered audio cleaning software*. [Computer Program]. <https://cleanvoice.ai/> (9 Nov. 2024).
- Council of Europe. 2001. Common European Framework of Reference for Languages. http://www.coe.int/t/dg4/linguistic/Source/Framework_EN.pdf (20 Oct. 2024).
- de Jong, Nel; Perfetti, Charles A. 2011. "Fluency training in the ESL classroom: an experimental study of fluency development and proceduralization". *Language Learning* 61(2), 533-568.
- de Jong, Nivja H.; Pacilly, Jos; Heeren, Willemijn. 2021. "PRAAT scripts to measure speed fluency and breakdown fluency in speech automatically". *Assessment in Education: Principles, Policy & Practice* 28(4), 456-476.

- de Jong, Nivja H.; Wempe, Ton. 2009. "Praat script to detect syllable nuclei and measure speech rate automatically." *Behavior Research Methods* 41(2), 385-390.
- Dörnyei, Zoltán; Dewaele, Jean-Marc. 2023. *Questionnaires in second language research: construction, administration, and processing*. New York: Routledge.
- Feng, Ruiling; Guo, Qian. 2022. "Second language speech fluency: what is in the picture and what is missing." *Frontiers in Psychology* 13, 1-3.
- Educational Testing Service (ETS). 2023. "TOEFL iBT Speaking Rubrics." <https://www.ets.org/pdfs/toefl/toefl-ibt-speaking-rubrics.pdf> (10 Oct. 2024).
- Ellis, Rod; Skehan, Peter; Li, Shaofeng. 2020. *Task-based language teaching: theory and practice*. 1st ed. Cambridge: Cambridge University Press.
- Ellis, Rod. 2003. *Task-Based Language Learning and Teaching*. (1st edition). Oxford: Oxford University Press.
- Foster, Peter; Skehan, Peter. 1996. "The influence of planning on performance in task-based learning". *Studies in Second Language Acquisition* 18(3), 299-324.
- Goetz, Sandra. 2013. *Fluency in native and nonnative English speech*. Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Hanzawa, Keiko; Suzuki, Yuichi. 2023. "How do learners perceive task repetition? Distributed practice effects on engagement and metacognitive judgment". *The Modern Language Journal* 107(2), 451-478.
- Kahng, Jimin. 2020. "Explaining second language utterance fluency: Contribution of cognitive fluency and first language utterance fluency". *Applied Psycholinguistics* 41(2), 457–80.
- Kim, YouJin. 2013. "Promoting attention to form through task repetition in a Korean EFL context". In McDonough, Kim; Mackey, Alison (eds.). *Second language interaction in diverse educational contexts*. New York: Routledge, 123-145.
- Koponen, Matti; Riggensbach, Heidi. 2000. "Overview: Varying perspectives on fluency". In Riggensbach, Heidi. (ed.), *Perspectives on Fluency*, Michigan: University of Michigan Press, 5–24.
- Kormos, Judith. 2006. *Speech production and second language acquisition*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Lahmann, Cornelia; Steinkrauss, Rasmus; Schmid, Monika S. 2017. "Speed, breakdown, and repair: an investigation of fluency in long-term second-language speakers of English". *International Journal of Bilingualism* 21(2), 228-242.
- Lambert, Craig; Kormos, Judit; Minn, Danny. 2017. "Task repetition and second language speech processing". *Studies in Second Language Acquisition* 39(1), 167-196.
- Lennon, Paul. 1990. "Investigating fluency in EFL: A quantitative approach". *Language Learning* 40(3), 387–417.
- Levelt, Willem J. M. 1989. *Speaking: From intention to articulation*. Cambridge, MA: The MIT Press.
- Macalister, John. 2014. "Developing speaking fluency with the 4/3/2 technique: An exploratory study". *TESOLANZ Journal* 22(1), 28-42.
- Maurice, Keith. 1983. "The fluency workshop". *TESOL Newsletter* 17(4), 130.
- Nation, Ian. S. P. 1989. "Improving Speaking Fluency". *System* 17(3), 377–384.
- Nation, Ian. S. P.; Newton, Jonathan. 2009. *Teaching ESL/EFL listening and speaking*. London: Routledge.
- Newton, Jonathan. 2016. "Teaching language skills." In Graham, Hall (ed.). *The Routledge Handbook of English Language Teaching*. New York: Routledge, 428-440.

- Richards, Jack C. 2015. *Key issues in language teaching*. (1st edition). Cambridge: Cambridge University Press.
- Riverside.fm. 2024. *Riverside Transcription Tool*. [Online service]. <https://riverside.fm/transcription> (9 Nov. 2024).
- Rossiter, Marian J.; Derwing, Tracey. M.; Manimtim, Linda. G.; Thomson, R. I. 2010. "Oral fluency: The neglected component in the communicative language classroom". *Canadian Modern Language Review* 66(4), 583-606.
- Santos, Jardel Coutinho dos; Ramírez-Avila, María Rossana. 2023. "Students' perspectives on the 4/3/2 technique and self-assessment to improve English speaking fluency". *Studies in English Language and Education* 10(1), 41-59.
- Schmidt, Richard. 1992. "Psychological mechanisms underlying second language fluency". *Studies in Second Language Acquisition* 14 (4), 357–385.
- Segalowitz, Norman. 2010. *Cognitive Bases of Second Language Fluency*. New York: Routledge.
- Seifoori, Zohreh; Vahidi, Zahra. 2012. "The impact of fluency strategy training on Iranian EFL learners' speech under online planning conditions". *Language Awareness* 21(1), 101-112.
- Skehan, Peter; Foster, Pauline. 1999. "The influence of task structure and processing conditions on narrative retellings". *Language Learning* 49(1), 93-120.
- Skehan, Peter. 2014. *Processing perspectives on task performance*. Amsterdam: John Benjamins Publishing Company.
- Suzuki, Shungo; Kormos, Judit; Uchihara, Takumi. 2021. "The relationship between utterance and perceived fluency: A meta-analysis of correlational studies". *The Modern Language Journal* 105(2), 435–463.
- Suzuki, Shungo; Kormos, Judit. 2023. "The multidimensionality of second language oral fluency: Interfacing cognitive fluency and utterance fluency." *Studies in Second Language Acquisition* 45(1), 38–64.
- Suzuki, Yuichi. 2021. "Optimizing fluency training for speaking skills transfer: comparing the effects of blocked and interleaved task repetition". *Language Learning* 71(2), 285-325.
- Tavakoli, Parvaneh; Hunter, Ann-Marie. 2018. "Is fluency being 'neglected' in the classroom? Teacher understanding of fluency and related classroom practices". *Language Teaching Research* 22(3), 330–349.
- Tavakoli, Parvaneh; Wright, Clare. 2020. *Second language speech fluency: From research to practice*. Cambridge: Cambridge University Press.
- Thornbury, Scott. 2022. "Materials for developing speaking skills". In Norton, Julie; Buchanan, Heather (eds.). *The Routledge Handbook of Materials Development for Language Teaching*. London: Routledge, 218-232.
- Tavakoli, Parvaneh; Skehan, Peter. 2005. "Strategic planning, task structure, and performance testing." In Ellis, Rod (ed.). *Planning and task performance in a second language*. Amsterdam: John Benjamins Publishing Company, 239-273.
- Thornbury, Scott. 2005. *How to teach speaking*. Harlow: Longman.
- Tran, Mai Ngoc; Saito, Kazuya. 2024. "Effects of the 4/3/2 activity revisited: extending Boers (2014) and Thai & Boers (2016)". *Language Teaching Research: LTR* 28(2), 326-345.
- Wallner, Sabine. 2014. "Teaching spoken English in the Austrian classroom." *Open Online Journal for Research and Education* 2(1), 10-20.

- Wood, David. 2006. "Uses and functions of formulaic sequences in second-language speech: An exploration of the foundations of fluency." *Canadian Modern Language Review* 63(1), 13-33.
- Yang, Yingjie. 2014. "The development of speaking fluency: The 4/3/2 technique for the EFL learners in China". *International Journal of Research Studies in Language Learning* 3(4), 55-70.
- Yen, Tran Thi Ngoc. 2019. "Improving EFL Vietnamese learners' speaking ability through the 4/3/2 technique". *Journal of Science* 48(2), 70-79.
- Zhang, Meng; Yi, Na; Zhou, Dandan. 2023. "The effects of task repetition schedules on L2 fluency enhancement." *Languages* 8(4), 1-16.

12. Appendix

12.1. Consent form

Kontakt:
Toni Grgic, BEd
toni.grgic@univie.ac.at
grgic.toni@grg21f26.at



Bundesgymnasium, Bundesrealgymnasium und
Wirtschaftskundliches Bundesrealgymnasium
Franklinstraße 26, 1210 Wien
☒ sekretariat@grg21f26.at
☎ 01/278 34 55 ☗ www.grg21f26.com



Einverständniserklärung

Wien, am 13.Mai. 2024

Liebe Eltern, liebe Erziehungsberechtigte,

als Englischlehrer an der F26 möchte ich Sie mit diesem Schreiben über mein Forschungsprojekt informieren, welches ich im Rahmen meiner Masterarbeit "Enhancing Austrian lower-secondary students' fluency through the 4/3/2 method. An action research project." in den Klassen 4A, 4B und 4E durchführen möchte. Zusammen mit meinen Kolleginnen Prof. Huber und Prof. Steinmann werde ich die sogenannte 4/3/2 Methode im Englischunterricht anwenden und erforschen.

Was ist die 4/3/2 Methode?

Die 4/3/2 Methode ist eine wirkungsvolle Unterrichtstechnik, um Schülerinnen und Schülern zu helfen, ihre Sprachfertigkeiten zu verfeinern. Dabei werden die Lernenden dazu ermutigt, einen Monolog über ein bestimmtes Thema dreimal zu halten, wobei die Zeitdauer bei jedem Durchgang verkürzt wird (zuerst 4 Minuten, dann 3 Minuten, schließlich 2 Minuten). Viele Studien belegen die Wirksamkeit dieser Methode und zeigen, dass die Lernenden ihre Sprachflüssigkeit (Fluency) dadurch signifikant verbessert haben.

Wie wird das Forschungsprojekt ablaufen?

Um die Wirksamkeit der 4/3/2-Methode in unserer Schule zu erforschen, plane ich im Zeitraum zwischen dem 14. Mai und dem 29. Mai einen Vortest (Pre-Test) und einen Nachtest (Post-Test) mit den SchülerInnen durchzuführen. Bei diesen Tests führen die SchülerInnen die 4/3/2 Methode eigenständig durch und zeichnen dabei ihre Vorträge in Form einer Audiodatei auf. Diese Audiodateien senden sie dann entweder über Microsoft Teams oder per E-Mail an mich, damit ich sie mithilfe eines Software-Programms auswerten kann. Zwischen dem Vor- und Nachtest wird die Methode in drei Unterrichtseinheiten durchgeführt, welche als sogenanntes Fluency Training dienen.

Was passiert mit den Audiodateien?

Die Audiodateien werden von mir ausgewertet und anschließend anonymisiert und in meiner Arbeit analysiert. Die Dateien werden streng vertraulich behandelt. Die Schülerinnen und Schüler werden auch nicht benotet, d.h., das Fluency Training hat keinen Einfluss auf ihre Note; es dient lediglich ihrem Sprachtraining.

Um die Teilnahme Ihres Kindes an unserem Forschungsprojekt zu bestätigen, können Sie über Schoolfox mithilfe des Abstimmungstools zustimmen. Durch diese Zustimmung erklären Sie sich damit einverstanden, dass die während des Fluency Trainings erstellten Audiodateien zu Forschungszwecken ausgewertet werden dürfen.

Vielen Dank und herzliche Grüße,

Toni Grgic

12.2. Speaking prompts

Topic A: Your favourite movie(s)

You will have to talk about this topic THREE times. First, you will talk about it for 4 minutes. Then repeat the talk in 3 minutes, and finally deliver the talk again in just 2 minutes. You have 3 minutes to think about what you are going to say. You can make notes if you wish.

Think about 2-3 of your **favourite movies**. For each movie, talk about the following aspects:

- What is the name of the movie?
- When and where did you watch it?
- What is/are the movie(s) about? (main characters, setting, etc.)
- What do you love most about it/them? (e.g. storyline, the characters, the setting, or something else)
- How does this movie/do these movies make you feel when you watch it/them?
- Try to give specific examples from the movie(s) to support your points.

Please take notes here:

Topic B: Ideal holiday

You will have to talk about this topic THREE times. First, you will talk about it for 4 minutes. Then repeat the talk in 3 minutes, and finally deliver the talk again in just 2 minutes. You have 3 minutes to think about what you are going to say. You can make notes if you wish.

Describe your ideal holiday. In your talk, you should answer these questions:

- Which place(s) in the world do you prefer to visit?
- Why do you choose this particular destination(s)?
- What would be the perfect hotel/Airbnb/apartment for you?
- What kind of food do you enjoy trying when traveling?
- What means of transport do you prefer when traveling?
- Do you prefer to travel alone or with companions?
- What activities do you enjoy participating in while traveling?
- What are your interests and priorities when traveling?

Please take notes here:

Topic C: Your school

You will have to talk about this topic THREE times. First, you will talk about it for 4 minutes. Then repeat the talk in 3 minutes, and finally deliver the talk again in just 2 minutes. You have 3 minutes to think about what you are going to say.

You can make notes if you wish.

Your friend from England wants to know more about your school. In your talk:

- Describe your school (Where is it? Which subjects do you have? Projects? Trips?)
- Which subjects do you like?
- Tell them about your teachers and classmates.
- Which moments did you enjoy most at your school?
- Do you have any special school trips or excursions?
- What about school traditions? (e.g. "Maturastreich", Maturaball, etc.)
- Do you plan to leave the school next year? If yes, why? If no, why not?
- If you could change 3 things about your school, what would they be?

Please take notes here:

Topic D: Hobby

You will have to talk about this topic THREE times. First, you will talk about it for 4 minutes. Then repeat the talk in 3 minutes, and finally deliver the talk again in just 2 minutes. You have 3 minutes to think about what you are going to say.

You can make notes if you wish.

Please tell us about your hobbies. In your talk, you should answer the following questions:

- Which hobbies do you have? (e.g. sports, music, art, etc.)
- When did you start hobby?
- What is it that you like most about your hobby?
- How often do you participate in your hobby?
- Do you enjoy your hobby alone or with others?
- Can you think of any special moments or stories related to your hobby?

Please take notes here:

Topic E: Culture & tradition

You will have to talk about this topic THREE times. First, you will talk about it for 4 minutes. Then repeat the talk in 3 minutes, and finally deliver the talk again in just 2 minutes. You have 3 minutes to think about what you are going to say. You can make notes if you wish.

- Where are you from culturally?
- Do you have any traditional food? If yes, can you explain what it is and what it tastes like?
- Do you have any special celebrations with your family or friends?
- When are these celebrations and what is being celebrated?
- Does religion play a role in your culture?
- Which language do you speak in your culture? Can you tell us more about the language?
- Do you have any special traditions? Are they different from Austrian traditions?

Please take notes here:

Topic G: Your future

You will have to talk about this topic THREE times. First, you will talk about it for 4 minutes. Then repeat the talk in 3 minutes, and finally deliver the talk again in just 2 minutes. You have 3 minutes to think about what you are going to say. You can make notes if you wish.

- What do you want to be when you grow up?
- Have you changed your dream career path over time?
- Do you plan to pursue higher education at university or enter the workforce directly after school?
- Do you envision having a family in the future?
- Where do you see yourself in 10 years from now?
- Describe your idea of the perfect house or living environment.
- What does your ideal job look like, and what factors make it perfect for you?

Please take notes here:

Topic F: Mobile phones

You will have to talk about this topic THREE times. First, you will talk about it for 4 minutes. Then repeat the talk in 3 minutes, and finally deliver the talk again in just 2 minutes. You have 3 minutes to think about what you are going to say.

You can make notes if you wish.

- How much do you use your phone?
- Which apps do you frequently use?
- Which ones do you like the most, and what do you use them for?
- Do you read the news on your phone?
- Do you watch TV on your phone?
- How do you communicate using your phone? (videocall, texting, Snapchat, etc.?)
- What are your thoughts on whether phones should be banned in certain contexts?

For example, what do you think about the phone ban in our school?

Please take notes here:

Topic H: Your Last Summer Vacation

You will have to talk about this topic THREE times. First, you will talk about it for 4 minutes. Then repeat the talk in 3 minutes, and finally deliver the talk again in just 2 minutes. You have 3 minutes to think about what you are going to say. You can make notes if you wish.

You should talk about:

- Did you enjoy your last summer vacation?
- If so, what did you enjoy about it? If not, why?
- did you encounter any problems?
- Where did you go?
- Who did you go with?
- How did you get there?
- How long did you stay there?
- What did you do?

Please take notes here:

12.3. Handout

How to structure your talk

When giving a talk, it is always helpful to focus on three key highlights to have a clear structure for both you and your audience. Below, you can find an example of a talk.

Hi! Today, I'd like to tell you about my last holidays. I want to share **three highlights**: **first**, the places I visited; **second**, the food I enjoyed; **and third**, the experiences that made the trip unforgettable.

First, I explored an amazing city with a rich history. **To start with**, I visited famous landmarks, **such as** historical museums and iconic monuments. **Then**, I spent an entire afternoon at a breathtaking cathedral, looking at its complex architecture. **Finally**, I wandered through picturesque streets filled with colorful markets and local artists.

Second, the food was an absolute highlight. **When it comes to** trying local dishes, I am always adventurous. For example, I tried unique flavors like spicy street food and traditional desserts. I **also** attended a cooking class, where I learned to prepare a regional specialty.

Finally, the experiences were truly memorable. **Before** returning home, I went on a boat ride at sunset, which was both peaceful and beautiful. **However**, the journey wasn't without its challenges—my flight home was delayed. **Yet**, I still felt grateful for every moment of my trip.

To sum up, my last holidays were a perfect combination of culture, cuisine, and unforgettable moments. I can't wait to plan my next adventure!

1. Sequential Order: • First, second, third • First of all, then, finally • To start with, next, lastly 2. Cause and Effect: • Because, so • Therefore, 3. Chronological Order: • Before, after • Then, later • Next, afterward 4. Adding Information: • When it comes to ... • Regarding ... • In addition, ...	5. Contrasting Ideas: • However, though • Yet, still 6. Illustrating Examples: • For example, such as • Like, for instance 7. Summarizing: • In conclusion, • finally • To sum up, • overall • In short, • to wrap up
--	---

12.4. Online questionnaire

Part I

1. Hier bitte ich dich, mir mitzuteilen, wie sehr du den folgenden Aussagen zustimmst oder nicht zustimmst, indem du einfach eine Zahl von 1 bis 5 ankreuzt:

- 1 ... stimme überhaupt nicht zu
 2 ... stimme eher nicht zu
 3 ... stimme weder zu noch lehne ich ab
 4 ... stimme eher zu
 5 ... stimme voll und ganz zu

	1	2	3	4	5
Ich habe die 4/3/2 Methode hilfreich gefunden für die Verbesserung meiner Sprechfähigkeiten.					
Mein Selbstvertrauen beim Sprechen hat sich durch die Anwendung der 4/3/2 Methode verbessert.					
Es fiel mir leicht, die 4 Minuten ohne Pausen durchzusprechen.					
Ich konnte Fehler aus dem ersten Durchgang (4 Minuten) beim zweiten und dritten Durchgang gut vermeiden.					
Ich konnte gut mit meinen Mitschüler*innen zusammenarbeiten, um die 4/3/2 Methode erfolgreich anzuwenden.					
Die Themen, über die wir sprachen, waren anregend und interessant.					
Die 4/3/2 - Methode ist eine motivierende Unterrichtsmethode.					
Ich würde die 4/3/2 - Methode öfter im Unterricht anwenden wollen.					
Die Erklärungen der Lehrperson ("How to structure your talk") fand ich hilfreich.					

2. Welche Herausforderungen hast du bei der Anwendung der 4/3/2 Methode erlebt?
 (Mehrfachauswahl möglich)

- ☐ Zeitdruck
☐ Schwierigkeiten beim Finden der richtigen Wörter
☐ Nervosität beim Sprechen
☐ Schwierigkeiten beim Zuhören und Feedback geben
☐ Andere (bitte spezifizieren): _____

3. Hast du Ideen oder Vorschläge, wie wir die 4/3/2-Methode im Unterricht besser machen können?

4. Hast du weitere Kommentare oder Anmerkungen zur 4/3/2 Methode?

Part II

Hier geht es um deine Selbsteinschätzung zu deiner Fluency.

Kreuze für die folgenden Aussagen entsprechend an.

- 1 ... stimme überhaupt nicht zu
- 2 ... stimme eher nicht zu
- 3 ... stimme weder zu noch lehne ich ab
- 4 ... stimme eher zu
- 5 ... stimme voll und ganz zu

	1	2	3	4	5
Ich kann flüssig sprechen, ohne lange Pausen zu machen.					
Ich kann meine Gedanken auf Englisch klar und schnell ausdrücken.					
Ich mache nur wenige Wiederholungen oder Selbstkorrekturen beim Sprechen.					
Ich verwende Füllwörter (ähm, uhm, etc.) selten und nur natürlich.					
Ich kann Geschichten und Erlebnisse flüssig und zusammenhängend erzählen.					
Ich kann spontan auf Englisch sprechen, ohne viel nachzudenken.					

Zusammenfassung

Zahlreiche Studien zum Zweitspracherwerb (L2) haben gezeigt, dass die 4/3/2-Aktivität – eine Sprechaufgabe, bei der Lernende drei aufeinanderfolgende Monologe von jeweils 4, 3 und 2 Minuten halten – die mündliche Sprachflüssigkeit fördert. Ihre Anwendung im deutschsprachigen Raum, insbesondere in der Sekundarstufe 1, wurde jedoch bislang wenig erforscht. Um diese Lücke zu schließen, untersucht dieses Aktionsforschungsprojekt die Auswirkungen der 4/3/2-Aktivität auf die Entwicklung der Sprachflüssigkeit von 49 österreichischen Schüler*innen der Sekundarstufe 1 im Fach Englisch – einer Gruppe, die in der Forschung bisher wenig Beachtung gefunden hat. Ziel des Projekts ist es, die 4/3/2-Aktivität als kurzfristige Intervention im österreichischen Englischunterricht umzusetzen, die Verbesserung der Sprachflüssigkeit der Schüler*innen nach der Intervention zu evaluieren, ihre Wahrnehmungen der Aktivität zu erfassen und Herausforderungen bei der praktischen Umsetzung im Klassenzimmer zu identifizieren. Dafür wurde ein Mixed-Methods-Ansatz gewählt: Zur Messung der Fortschritte in der Sprachflüssigkeit wurden Audioaufnahmen der Monologe gemacht und mit der Sprachanalyse-Software PRAAT ausgewertet; die Wahrnehmungen der Schüler*innen wurden über einen Online-Fragebogen erfasst, während kollaborative Beobachtungen wertvolle Einblicke in die Herausforderungen während der Aktivität gaben. Die Ergebnisse zeigen signifikante Verbesserungen der Sprachflüssigkeit, darunter schnellere Sprechgeschwindigkeiten, verbesserte Phonation-Time-Ratios und weniger Füllwörter. Die Umfrageergebnisse verdeutlichen außerdem, dass die Mehrheit der Schüler*innen die Aktivität als hilfreich für die Verbesserung ihrer Sprechfähigkeiten und den Aufbau von Selbstvertrauen im Englischsprechen ansieht. Einige äußerten jedoch Unzufriedenheit mit der Wiederholungsstruktur der Aktivität und der Partnerzuordnung. Die kollaborativen Beobachtungen lieferten weiteren Kontext und zeigten, dass die Hauptprobleme in der nachlassenden Motivation sowie in Schwierigkeiten mit der Partnerkonstellationen lagen. Dies unterstreicht die Bedeutung, sowohl soziale als auch individuelle Faktoren zu berücksichtigen, wenn die 4/3/2-Aktivität mit jungen Englisch-Lernenden durchgeführt wird. Insgesamt hebt die Studie das Potenzial der Aktivität hervor, die Sprachflüssigkeit in Englisch-Klassen der Sekundarstufe 1 zu fördern, und gibt praktische Empfehlungen zur Überwindung von Implementierungsherausforderungen.