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introductions and conclusions“

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List of abbreviations

AFL	Academic Formulas List
CARS	Create a Research Space
EAP	English for Academic Purposes
ESP	English for Specific Purposes
FTW	formula teaching worth
FE	formulaic expression
NS	native speaker
NNS	non-native speaker
PISF	probable in some fields
RA	research article
SFL	Systemic Functional Linguistics
SRDP	Standardisierte Reife-und Diplomprüfung
VWA	Vorwissenschaftliche Arbeit

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1. Introduction

Pupils at Austrian grammar schools have to accomplish a new standardized final examination process that has been implemented in 2014/15 in order to demonstrate the knowledge, skills and competences acquired during the years of their education. A major component of the “standardisierte Reife- und Diplomprüfung” is to write the “Vorwissenschaftliche Arbeit (VWA)”. Thereby, pupils have to demonstrate their academic writing skills because the VWA has to display certain formal criteria such as having a specific structure, adhering to citation rules etc. (Bundesministerium für Bildung 2016a: 7). Even though various guidelines offered by the ministry of education provide information about the VWA, studies investigating students’ actual performances are still required, to find out more about this new genre. The lack of research on VWAs has been recognized by the Stadtschulrat für Wien and therefore, the demand of thorough analyses of VWAs has been expressed. In addition, the Stadtschulrat für Wien has been particularly interested in those VWAs written in English. This interest in VWAs written in English by the Stadtschulrat für Wien has led to the idea to conduct a genre analysis in order to gain a more in-depth knowledge about the new genre.

Previous studies on introduction and conclusion sections of academic genres such as published research articles or Master’s theses or student seminar papers revealed valuable findings by conducting a move structure analysis (Swales 1990, 2004; Yang & Allison 2003; Hüttner 2007; Samraj 2008). This thesis will analyze introductions and conclusions as well because these sections are assumed to be rather homogenous in contrast to the main body of a VWA and thus, contribute useful information on this new established genre as well as the field of genre analysis of academic texts in general.

A second focus of this thesis is the identification of target formulaic expressions in all sections of the VWAs. Simpson-Vlach and Ellis (2010) have shown that certain formulaic expressions are more common in academic discourse than non-academic discourse due to their usefulness for successful academic writing and speech. Therefore, the expressions recorded in the so called Academic Formulas List by Simpson-Vlach and Ellis (2010) are the basis for the analysis to find out whether pupils already employ “academic” formulaic expressions.

Overall, my thesis will answer the following four research questions:

- What are similarities and differences between the models summarizing the move structures of research article introductions and conclusions and the official guidelines for VWA introductions and conclusions recommended by the ministry of education?
- Do pupils realize all the moves suggested for the introduction and conclusion? If not, which ones seem to be regarded as core questions and which ones as optional questions by the pupils?
- Do pupils' introductions/conclusions include additional moves/steps not suggested in the guidelines provided by the ministry of education?
- Do pupils use formulaic expressions characteristically found in academic writing?

The thesis will begin with background information about the VWA which contribute to a better understanding of the overall aim and how this is claimed to be achieved by this new final examination process at Austrian grammar schools. Furthermore, as this thesis will focus on an analysis of the genre structure of introductions and conclusions, chapter 3 will provide theoretical background knowledge about genre analysis in general and move structure analysis in particular. Additionally, linguistic characteristics, more specifically formulaic expressions, will be researched in the VWAs which have been strongly connected to genre (cf. Hüttner 2007). Therefore, chapter 4 will not only outline general information on formulaic language but mostly research focusing on formulaic language and academic discourse because these multi-word expressions have been found to signal membership to a specific discourse community that is again related to specific genres (Hyland 2008a: 5).

The theoretical information gained are the basis for the actual analysis conducted in this thesis. Chapter 5 will outline the design of the study by describing the data set as well as the methodology employed, before the results of the analysis will be presented in the subsequent section. Thereafter, chapter 7 will discuss the main results and attempt to answer the four aforementioned research questions. A concluding section will summarize the main findings of my thesis and additionally, recommend further research.

2. Vorwissenschaftliche Arbeit: official guidelines

The VWA is a newly introduced genre pupils and teachers all over Austria are confronted with. The novelty as well as the importance for Austrian pupils and teachers contribute to the interest to learn more about this genre. As the VWA is a recently developed genre, this chapter will focus on general information on the VWA, its aims and objectives, the formal requirements and assessment criteria and also the preparation process involved for a better understanding of this genre.

2.1 General information

In 2014/2015, a new standardized final examination process named “Standardisierte Reife- und Diplomprüfung” from now on referred to as SRDP, was carried out in all Austrian grammar schools for the first time. The SRDP is based on the “Drei-Säulen-Modell” developed by experts of the ministry of education, art and culture (Bildungsministerium für Bildung, Kunst und Kultur) together with Austrian education authorities as well as the BIFIE (Bundesinstitut für Bildungsforschung, Innovation und Entwicklung des österreichischen Schulwesens). The major aim of this standardized examination process is to enhance as well as to monitor the quality of Austrian schools. Furthermore, transparency and comparability of the exams, the rating system and pupils’ achievements are additional objectives of the SRDP (Bundesministerium für Bildung 2016d <https://www.bmb.gv.at/schulen/unterricht/ba/reifepruefung.html> 1 Sept. 2016.).

The “Drei-Säulen-Modell” in Figure 1 demonstrates the threefold structure of the SRDP. Firstly, students have to independently write a “VWA” about a topic of their personal interest until the end of the first week of the second semester of the final school year. The presentation and discussion session of the VWA takes place at a later point in the semester. Secondly, students have to take three to four written exams. The tasks for these exams are standardized and therefore, the same in all grammar schools within Austria. Finally, the third module of the SRDP are oral exams in either two or three subjects. The modular structure allows students to take the oral exams even if they do not pass either of the two other modules (Bundesministerium für Bildung 2016d <https://www.bmb.gv.at/schulen/unterricht/ba/reifepruefung.html> 1 Sept. 2016.).

Even though all modules need to be completed successfully, this diploma thesis focuses on the VWA only. The following sections will provide more detailed information about the first module while leaving aside the two remaining parts of the SRDP.

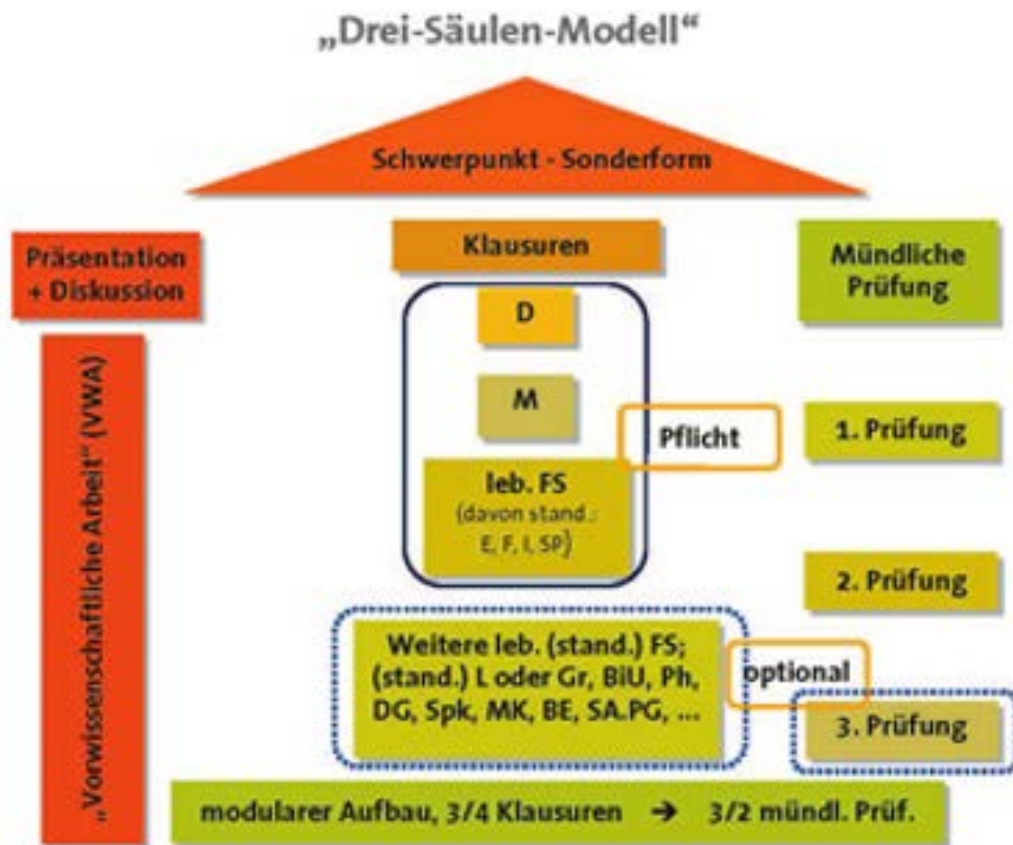


Figure 1: Drei-Säulen-Modell (Bundesministerium für Bildung 2016d)

2.2 Aims and objectives

Austrian grammar schools aim at providing pupils with an extensive general education as a prerequisite for entering university. Academic writing is an essential component when pursuing a degree at university and therefore, the incorporation of the VWA into the SRDP aims to ensure that pupils possess basic competences in academic writing as well. The skills and competences pupils are expected to acquire during the years at school and which they have to demonstrate when writing the VWA will be outlined below.

According to the ministry of education, the VWA tests whether students managed to develop the following general skills (Bundesministerium für Bildung 2016: 9/ translated by the author):

- research skills, purposeful excerption of information, citation skills, structuring skills, text production skills
- formulation of relevant research question
- critical usage of material

- independence and exactness
- objectivity
- logical and critical and coherent thinking skills
- ability to draw conclusions from differentiated statements
- reasonable argumentation
- sophisticated and correct mode of expression
- revision of texts in accordance with formal criteria

The competences listed are not only the goals but also form the basis for the assessment of the VWA. However, the VWA does not aim at obtaining new and unique insights in a certain field of research but pupils should be able to answer the central questions of the chosen topic in an appropriate stylistic manner even if the answers are not original findings. The various skills should not be acquired by writing the VWA but should have been developed within various subjects in the preceding years at school (Bundesministerium für Bildung 2016a: 9).

The written part comprises the following five competence areas (Bundesministerium für Bildung 2016b: 2)

- Selbstkompetenz
- Inhaltliche und methodische Kompetenz
- Informationskompetenz
- Sprachliche Kompetenz
- Gestaltungskompetenz

The presentation of the VWA and the discussion focus on three additional competences:

- Strukturelle und inhaltliche Präsentationskompetenz
- Ausdrucksfähigkeit und Medienkompetenz
- Kommunikations- und Diskursfähigkeit

The central objective of this first module of the SRDP is to teach students how to work independently by applying various competences. The skills pupils are required to demonstrate by writing and presenting the VWA have an overall aim, namely to assist pupils to become successful students at University. The eight competence areas listed in the final part of this section will be described in more detail in chapter 2.6 because they are the basis for the final assessment of the VWA.

2.3 Formal criteria and structure

The demonstration of academic writing skills and thereby, a pupil's capability to become a successful student at university are central aims of the VWA. Therefore, pupils have to adhere to certain formal criteria that will be described in this section.

First of all, the VWA has to be within a certain limit of characters. Up until the school year 2016/17, the minimum length of the VWA had to be 40.000 characters including spaces (Bundesministerium für Bildung 2014: 1). The abstract is counted into the length of the VWA as well, whereas the foreword, the table of contents, the list of references and the table of figures are not included in the number of characters. Students are not allowed to exceed a limit of 60.000 characters including spaces. (Bundesministerium für Bildung 2014: 1). However, according to the formal criteria developed by the ministry of education from September 2016 no minimum length is stated any more but only the maximum of 60.000 characters is a requirement students have to consider when writing the VWA (Bundesministerium für Bildung 2016c: 1).

Secondly, the VWA has to follow certain formal guidelines in terms of its formatting and citations. For instance, the pupil has to use an easily legible script and structure the paper in a neat and consistent manner. The pupil's statements in the paper have to be verifiable and comprehensible and adhere to certain citation guidelines. Pupils can work with footnotes, endnotes and also references within the continuous text. However, the pupil has to choose one citation technique and be consistent throughout the whole paper (Bundesministerium für Bildung 2016a: 8).

Finally, the VWA has to be structured in a certain manner with compulsory elements as well as optional parts. Every VWA has to contain the following elements:

- Title page
- Abstract
- Table of contents
- Introduction
- Main part
- Conclusion
- References
- Statement of authorship

Additionally, pupils can choose to include a foreword, a list of tables, a list of abbreviations and an appendix.

Furthermore, within these individual sections, pupils have to consider specific requirements as well. As my thesis focuses on introductions and conclusions, the guidelines for these two sections will be described in section 2.5.

The adherence to the formal criteria is an essential component demonstrating pupils' ability to write a pre-scientific thesis and therefore, also to become a successful student at university (Bundesministerium für Bildung 2016a: 7).

2.4 Preparation

The competences tested by the composition and presentation of the VWA and its oral presentation and discussion should not be acquired while working on the VWA but already in the years before. Therefore, the schools are encouraged to prepare pupils for the process of writing a VWA appropriately.

However, there is no uniform curriculum Austrian grammar schools can follow, as these competences should be acquired while being taught all kinds of subjects throughout the school career. The schools have the opportunity to provide additional courses that help students to develop further those competences needed for passing the first part of the SRDP (Bundesministerium für Bildung 2016a: 14). The two Viennese schools (school A, school B) from which the data set has been taken offer such courses, which will be described briefly in this section, after presenting an overview of a website created by the ministry of education that offers information and material for writing the VWA for pupils as well as assessment grids for teachers.

The most comprehensive website that provides information and helpful material for the VWA is www.ahs-vwa.at. Pupils as well as teachers find information about every step involved in finishing the VWA. For instance, teachers can download assessment criteria or checklists with useful information they have to consider in the supervision process. Teachers can also find courses at the "Pädagogische Hochschule" in order to gain more profound knowledge and become well-prepared supervisors. The material on the formal criteria of a VWA, citation rules and guidelines about how to find a topic or generate a research question or how to find relevant literature or which scientific method can be employed are useful for pupils and also teachers who want to inform their pupils about the requirements of the VWA. In this thesis, the guidelines offered for the actual writing process, in particular the material for writing the introduction and conclusion section, will be considered when conducting the move structure analysis. Moreover, the guidelines will be outlined in greater detail in the next section. Additionally, useful phrases for describing graphs and tables or for constructing arguments or giving reasons for their claims are

available for those pupils who are writing in German. Finally, also the requirements for the presentation and discussion of the VWA are described on the website. Generally, the website seems to provide essential information on a wide range of topics concerning the VWA (Bundesministerium für Bildung 2016e www.ahs-vwa.at).

School A offers obligatory preparation courses for the students in the 10th and 11th grade. However, these courses take place one hour per week for one semester per school grade only. In 10th grade, the course focuses on conducting a research study, learning about citation conventions, getting to know the elements of the VWA and finding a topic. The teachers work with materials provided by the ministry of education on the following website: <http://www.ahs-vwa.at/>. Furthermore, a script designed in the school is used for teaching as well. Students also participate in a “Rechercheschulung” offered by the Vienna University Library. In 11th grade, citation conventions and formal criteria of the VWA are revised and help is offered for the actual writing process. Additionally, the presentation and discussion of the VWA is explained and practiced as well.

School B introduced obligatory courses for students in the 9th to the 11th grade and an optional course in 12th grade in order to improve the eight competence areas: Selbstkompetenz, inhaltliche und methodische Kompetenz, Informationskompetenz, Sprachliche Kompetenz, Gestaltungskompetenz, strukturelle und inhaltliche Präsentationskompetenz, Ausdrucksfähigkeit und Medienkompetenz, Kommunikations- und Diskursfähigkeit. In the second school semester of the 9th grade, students learn about rhetoric and presentations in two lessons per week. In 10th grade in the first semester students attend a two hour per week course about project management which is followed by a so called Projektmodul. In 11th grade, the students actually learn about the VWA. The pupils receive information as well as help to find a topic and a supporting teacher. The course is again two hours per week for one semester. In the final year, pupils have the possibility to participate in an optional writing workshop.

2.5 Guidelines

In this section, the guidelines for introductions and conclusions will be described in greater detail. The guiding questions presented in this section will become the basis for the move structure analysis conducted in my thesis.

Introduction

Generally, the guidelines suggest that pupils should guide the reader into the topic of the VWA. Therefore, the readers' previous knowledge about the topic should be taken into account for writing the introduction as too broad descriptions should be avoided but also expecting too much knowledge is not suggested. Pupils are encouraged by the guidelines to arouse readers' interest in the topic. Furthermore, six guiding questions are presented which students should respond to in their introduction. These are described in greater detail and are sometimes accompanied by examples. Interestingly, how a pupil orders these questions can be chosen individually. Additionally, pupils are informed about what is not part of an introduction such as personal motives for choosing the topic as well as acknowledgements (Weigl 2016a: 1-3). The following six questions are central for a VWA introduction (Weigl 2016a: 1-3):

1. What exactly is your topic?

The reader should understand what the VWA is concerned with from the beginning onwards.

2. Which literature will you base your VWA on?

An overview of the most important sources should be offered. However, students should not simply list these sources but also comment on each source and discuss what is interesting about them. For example, the pupils can write "Mit der Frage, wie..., hat sich zuletzt umfassend Sabine Müller befasst. In ihrem 2011 erschienenem Buch zeigt sie, dass... (Müller 2011)".

3. What is the aim of your VWA?

The VWA should have a clear aim. An explanation of what the VWA will discuss or explain in particular should be stated. For instance, *the paper shows* or *the main aim of this paper is* would be typical phrases pupils can use.

4. How will you proceed to achieve your aim?

Question four is concerned with the method employed in the VWA in order to achieve the aim. Possible methods are experiments, quantitative or qualitative studies but also solely literature based papers are possible.

5. How is your VWA structured?

Pupils should provide an overview of the structure of their paper. A typical example is: “Im ersten Teil der Arbeit werde ich...Darauf aufbauend werde ich im zweiten Teil... Schließlich...”.

6. What will you not do?

As most topics offer a variety of viewpoints that can be discussed, pupils should narrow down the topic and explain also the reasons for their choices. This means that pupils should also state what they will not do. For instance, “...will not be discussed in this paper. A more comprehensive view on this topic would exceed the scope of this paper” is a possible phrase provided.

Finally, pupils are encouraged to put great effort into the first sentence of the introduction in order to grip the readers' attention. The pupils could stress the relevance of the topic for the society or explain why the topic is interesting (Weigl 2016a: 2-3).

Conclusion

The final chapter of the VWA is a concluding section that offers a summary of the main findings of the VWA. Furthermore, an understanding of how scientific research works is shown by pupils who can raise questions that could not be answered and point towards aspects for further research (Weigl 2016b: 1). Therefore, three questions should be answered by the concluding section (Weigl 2016b: 1):

1. What are the main findings of your paper? What should readers take with them?
2. Did any unexpected difficulties arise during the writing process? If yes, which ones? Could you solve them?
3. Did you encounter unanswered questions, which could be analyzed in further studies? If yes, which ones?

On the whole, a page is suggested to be appropriate for answering these questions. Question one is described as a core question whereas, question two and three are optional as not everyone encounters questions or difficulties when writing the VWA (Weigl 2016b: 1).

Overall, no background information could be found which explains how these guidelines have been created. The guidelines described in this section will be the basis for the move structure analysis of the VWA introductions and conclusions because these are the only explicit suggestions available regarding what communicative intentions the introductions

and conclusions of this genre should fulfill. However, whether pupils adhere to these guiding questions has to be found out by analyzing the VWAs. Furthermore, the comparison to the move structure developed by Swales (2004) as well as Yang and Allison (2003) in research articles that is aimed for could not only lead to interesting findings about differences and similarities of the communicative purpose of the genres but also pedagogical implications as a lot of research has been conducted on move structures.

2.6 Assessment criteria

The written VWA is assessed by the supervising teacher on the basis of an assessment grid provided by the BIFIE (Bundesministerium für Bildung 2016b: 4-7).

In general, the five major competence areas for the written part of the VWA presented in section 2.2 are equivalent with the five areas assessed by the teacher. Furthermore, the assessment grid offers a set of sub criteria students have to fulfill which together make up a competence area. For instance, the first competence graded is “Selbstkompetenz” which consists of a set of five criteria such as “the student actively takes steps to find a topic and research questions”. The main points of the grid will be listed below (Bundesministerium für Bildung 2016b: 4-7/ translated by the author):

i. Selbstkompetenz

“Selbstkompetenz” is concerned with a pupil’s ability to work independently and to act responsibly. The pupil is able to reflect on his or her own work and to generate a high performance. The descriptors provided in the assessment grid further characterize this competence and make clear what is expected from the candidate (Bundesministerium für Bildung 2016b: 4-7).

1. The student actively takes steps to find a topic and research questions.
2. The student plans the working process thoroughly and plans single steps independently.
3. The student employs appropriate methods in order to work effectively on the topic.
4. The student records the writing and working process and respects fixed appointments.
5. The student reflects on the teacher’s feedback and guidance.

ii. Inhaltliche und methodische Kompetenz

The second set of criteria focuses on the students' ability to formulate a rather concrete research question and moreover, to answer this question reasonably and clearly by employing an appropriate method. The following descriptors are listed (Bundesministerium für Bildung 2016b: 4-7):

1. The student approaches the overall topic with a goal-oriented question as well as method.
2. The student is able to present specialist knowledge, facts and data taken from relevant literature in this topic area.
3. The student does well founded research.
4. The paper is structured in a conclusive and logical manner.
5. The question is approached reasonably and effectively.
6. The student describes the results objectively and logically.
7. The student employs the chosen methods correctly.

iii. Informationskompetenz

The third major competence is demonstrated by finding relevant resources to answer the research question and to use them effectively. Additionally, in order to find useful literature, pupils need to go to libraries or search for books, research articles and also audio-visual materials on the Internet. Therefore, they have to be aware of which material is relevant for the specific research question and how reliable the source is. The following three descriptors have been identified (Bundesministerium für Bildung 2016b: 4-7):

1. The student searches for relevant sources and material independently.
2. The student is able to evaluate the usefulness of the material and chooses relevant material for the topic only.
3. The student applies correct and coherent citation rules.

iv. Sprachliche Kompetenz

The VWA also tests pupils' use of language and its appropriateness for the given register which is summarized in three descriptors (Bundesministerium für Bildung 2016b: 4-7).

1. The student aims for reader friendliness by structuring the paper clearly and expressing his/her ideas logically.
2. Direct as well as indirect citations are incorporated correctly and are suitable to the context.
3. The student masters the grammatical and lexical conventions of the language.

v. **Gestaltungskompetenz**

The final major competence a student has to demonstrate with the written part of the VWA is the ability to adhere to certain formal criteria such as citation rules and the overall layout. The school has the important task to teach to the students in advance, what is expected from them in terms of the overall formal features the paper has to contain. However, the students also have to be able to abide by the conventions in order to be successful. The descriptors assessed are (Bundesministerium für Bildung 2016b: 4-7):

1. The student labels the sections of the VWA according to their function.
2. The paper is structured reader friendly by having a standard format and a coherent structure.
3. The student takes into consideration formal criteria.

All competences have to be evaluated positively in order to pass the VWA and the teacher has to take into account the degree of fulfillment that corresponds with the assessment criteria according to the § 14 der LBVO. Overall, there are four degrees of fulfillment: predominant fulfillment of required level of competence, complete fulfillment of requirements, exceeding requirements, exceeding requirements considerably. At least the first degree stated above has to be reached in all five competence areas (Bundesministerium für Bildung 2016a: 3).

The assessment criteria described in this section demonstrate what each area of competence actually means and how students can actually show that they managed a specific competence successfully. The official assessment criteria can be seen in Appendix 1.

Even though important information about the VWA in general have been provided in this chapter, a more in-depth analysis of VWAs is aimed for by conducting a genre analysis, in particular, a move-structure analysis. Furthermore, as has been announced in the introduction, a second focus of this thesis is the analysis of formulaic sequences particularly common in academic discourse which relates to genre as well as pupils' "Sprachkompetenz". Therefore, the next two chapters will outline theoretical background in both fields of research, genre analysis as well as formulaic sequences.

3. Genre analysis

The concept of genre is present in different areas such as literary studies, folklore, rhetoric and also linguistics (Swales 1993: 33-34). Genre is not only a rather diverse concept in general, but also in the field of linguistics which becomes apparent by the existence of three schools of genre theory. However, different approaches to genre analysis share certain features such as “relating the study of language or discourse to professional practice” (Hüttner 2007: 19) as well as understanding the conventions and expectations within a particular professional language practice. Additionally, the different approaches on genre analysis are all interested in educational matters (Hüttner 2007: 19).

The following chapter will start with an overview of the three schools of genre theory. Furthermore, the most appropriate approach for this thesis will be chosen and then, a working definition of the term “genre” will be provided. Afterwards, a methodology of genre analysis will be presented which offers information on the analysis of move structures as well. Finally, an overview of studies defining the genre structure of introduction and conclusion sections of research articles as well as different “student-produced genres” (Samraj 2008) will be presented.

3.1 Three schools of genre theory

Overall, three different approaches to genre analysis can be differentiated. Even though they share common features, each school has its own definition of genre and an individual approach to analyzing texts that will be discussed in this section.

3.1.1 The New Rhetoric group

The work of North American scholars who follow the rhetorical tradition is labelled as the New Rhetoric group. Popular proponents of this first school of genre theory are Miller (1984), Bazerman (1988), Coe (2002) as well as Freedman and Medway (1994).

Genre analysis, according to this approach, focuses on the context in which a text occurs. Coe (2002: 197), for instance, defines genre as “the functional relationship between a type of text and a type of situation”. Similarly, Miller (1984: 151) claims that “a rhetorically sound definition of genre must be centered not on the substance or the form of discourse but on the action it is used to accomplish”.

Because of this focus on functional and contextual aspects of a genre (Hyon 1996), an ethnographic methodology is predominantly employed rather than a text analytic method for revealing specific genre users’ values, attitudes and beliefs (Hyland 2002: 114). A

popular example is offered by Schryer (1993) who employs a number of ethnographic techniques in order to analyze the purpose of the veterinary medical record within a veterinary college. Examples of such techniques are observing participants, conducting interviews, collecting documents and investigating the attitudes of clinicians and researchers toward the genre of reports (Schryer 1993: 201-202).

Generally, teaching certain genres in a classroom has not been a major aim of the New Rhetoric group. However, a few researches do try to encourage the teaching of genres within classrooms. For instance, Adam and Artemeva (2002) as well as Coe (2002) focused on providing pedagogical implications about genre teaching. Nevertheless, the fluidity of social contexts and therefore, the dynamic quality of genres are possible reasons for neglecting explicit genre teaching (Freedman & Medway 1994: 10).

3.1.2 The Sydney School

The second prominent approach is known as the “Sydney School” and is highly influenced by Michael Halliday’s work on Systemic Functional Linguistics (SFL). According to Halliday’s SFL, register of language is determined by three key features, namely field, tenor and mode. Field deals with the topic within a certain situation, while tenor focuses on the participants involved and their relationships with each other. Finally, mode is concerned with the nature of the text, for instance, whether the text is written or spoken. Even though Halliday analyzes language mainly on the basis of register, Martin as well as other researchers generated theories of genre within Halliday’s framework of SFL (Hyon 1996: 697).

The most prominent definition of genre within this approach is the perception of genres as “staged, goal-oriented, purposeful activity in which speakers engage as members of [a] culture” (Martin 2001: 155). Hyland (2004: 25) provides a more detailed explanation for this definition by stating the following:

Genres are social processes because members of a culture interact to achieve them; they are goal-oriented because they have evolved to achieve things; and they are staged because meanings are made in steps, and it usually takes writers more than one step to reach their goals.

In order to achieve the overall social purpose a speaker is intending, the language has to be shaped and organized in a particular manner to compose various types of texts. These shaping structures are named “schematic structures”. This schematic structure determines the potential stages a genre should display as well as the order of the individual stages (Coffin 2006: 109-110). Furthermore, describing the linguistic characteristics of individual stages is of major importance to this approach (Hüttner 2007: 27).

Another characteristic of the Sydney school is its interest in developing a genre-based pedagogy in order to promote literacy education within primary and secondary schools as well as adult migrant programs (Hyland 2002: 115).

3.1.3 The ESP (English for specific purposes) approach

The final school of genre theory is known as the ESP approach and the most prominent representatives are Swales (1990; 2004) and Bhatia (1993). Similar to the Sydney school, the ESP approach is highly concerned with integrating insights gained from analyzing genres into language learning settings (Hyland 2002: 115). Nevertheless, while the Sydney school focuses on migrant literacy education and primary and secondary education, the ESP approach is interested in academic genres and tertiary education (Hyon 1996: 697).

Researchers following the ESP approach are mainly interested in the communicative purpose which is seen as the central criterion in order to identify a genre (Coffin 2006: 112). Both formal properties and communicative purpose within social contexts are considered in the analysis of a genre (Hyon 1996: 695).

While the Sydney school is interested in stages, the ESP approach focuses on moves within academic texts (Hüttner 2007: 25). For instance, Swales (1990) examines the move structure of research article introductions, Yang and Allison (2003) analyze the discussion section and the conclusion section of research articles and others focus on medical abstracts (Salager-Meyer, 1990) or MsC dissertations (Hopkins & Dudley-Evans, 1988). Hüttner (2007), who conducted an extended genre analysis of introductions and conclusions of student papers written at university, used the ESP approach as a starting point for her analytical framework as well.

The analysis conducted within this diploma thesis will be based on the ESP approach, even though the data analyzed has been composed in secondary education rather than at the tertiary level and does not belong to any of the genres discussed by previous researchers. However, as a major aim of the VWA is to prepare pupils for the future requirements of a university student, which includes academic writing, the ESP approach seems most suitable for this purpose. Following the ESP approach, a move structure analysis will be conducted by defining the central moves of the introduction and conclusion sections of the VWA in order to gain further insights about the formal features of the new genre VWA and its communicative purpose.

3.2 A working definition of genre

The overview of the three schools of genre theory has demonstrated that genre can be defined differently according to the main principles an approach relies on. As the ESP approach seems most appropriate for the genre analysis conducted within this diploma thesis, Swales' (1993: 58) popular definition of genre is used:

A genre comprises a class of communicative events, the members of which share some set of communicative purposes. These purposes are recognized by the expert members of the parent discourse community, and thereby constitute the rationale for the genre. This rationale shapes the schematic structure of the discourse and influences and constrains choice of content and style.

Central phrases in this definition are “communicative events”, “communicative purpose” and “discourse community”. According to Swales (1993: 45), “a communicative event is one in which language (and/or paralanguage) plays both a significant and an indispensable role” in contrast to activities that involve incidental language usage such as doing physical exercises or household chores. Furthermore, a collection of communicative events is regarded a single genre if a communicative purpose is shared. Bhatia (1993: 13) argues that “this shared set of communicative purpose(s) shapes the genre and gives it an internal structure”. Therefore, changing the communicative purpose significantly is likely to change the genre as well (Bhatia 1993: 13). The basis for assuming that genre-membership relies on a shared purpose instead of formal similarities alone is the claim that “genres are communicative vehicles for the achievement of goals” (Swales 1993: 46). The view that communicative purpose is the defining feature of a genre is also shared by Dudley-Evans (1994: 219). Furthermore, Swales (1993) and Dudley-Evans (1994) are both concerned with the so called “discourse community” that is actually using a specific genre and therefore, is strongly connected to genre. Swales (1993: 24-27) offers six defining characteristics of a discourse community listed below:

1. A discourse community has a broadly agreed set of common public goals.
2. A discourse community has mechanisms of intercommunication among its members.
3. A discourse community uses its participatory mechanisms primarily to provide information and feedback.
4. A discourse community utilizes and hence possesses one or more genres in the communicative furtherance of its aims.
5. In addition to owning genres, a discourse community has acquired some specific lexis.
6. A discourse community has a threshold level of members with a suitable degree of relevant content and discursal expertise.

The six characteristics will be employed in order to make an attempt of defining the discourse community that shares the genre VWA. Overall, the status of pupils at Austrian grammar schools writing the VWA as a discourse community will be investigated. Furthermore, the teacher's involvement will be discussed as well.

1. Pupils writing the VWA share a set of common goals. The overall goal the pupils have in common is the aim to pass the SRDP. Therefore, a number of minor goals have to be achieved such as fulfilling tasks and assignments set by the teacher during the school year in order to pass all the courses. Then, the acquisition of a set of competences is a major aim which is demonstrated by writing the VWA as well as presenting and discussing the VWA. The teacher is part of the discourse community in an expert position as the teacher sets the tasks and assesses the pupils' work.
2. The second characteristic comprises the "mechanisms of intercommunication among its members" (Swales 1993: 25). According to Swales (1993: 25), a variation of mechanisms in accordance with the community is possible. Considering the discourse community in question, the main medium of communication is face-to face conversations or communication via social media platforms. Furthermore, e-learning platforms are commonly employed in grammar schools. Moreover, as has been described in chapter 2.4, Austrian grammar schools can offer specific courses which assist pupils to achieve the common goal of passing the first requirement for the SRDP, the VWA. These courses offer a further means of direct communication among the members of this specific discourse community.
3. Swales (1993: 26) claims that "membership implies uptake of the informational opportunities". The "participatory mechanisms" are "primarily [used] to provide information and feedback" (Swales 1993: 26). The exchange of information and feedback is present in the discourse community of pupils as they not only offer information and feedback to each other but more importantly the teacher usually does so. Furthermore, "the secondary purposes of the information exchange will vary according to the common goals: to improve performance in a football squad or in an orchestra" (Swales 1993: 26). The major common goal is the SRDP and therefore, a lot of information exchange is focusing on the VWA as well as the final exams within the SRDP. Similarly to the improvement within a football squad, pupils' goal is to improve their skills and competences in order to pass the SRDP, including the VWA.
4. The fourth defining criterion is to have "community specific genres" (Swales 1993: 29). The VWA can be regarded as being such a "community specific genre". By writing the VWA the overall aim to demonstrate the competences described in section 2.2 is achieved.
5. The specific lexis "may involve using lexical items known to the wider speech communities in special and technical ways" or moreover, "the development of

community-specific abbreviations and acronyms” (Swales 1993: 26). The abbreviation VWA cannot be regarded as being exclusively understood by the discourse community, however, mostly people connected to the discourse community will be able to understand the abbreviation such as parents. Furthermore, pupils leaving school will not be part of the specific discourse community and still recognize their specific terms.

6. As has been mentioned above, “discourse communities have changing memberships” (Swales 1993: 27). Furthermore, “the community depends on a reasonable ratio between novices and experts” (Swales 1993: 27). The ratio between new members and experts is tricky in this specific discourse community. Teachers can be seen as experts as they have mastered the genres involved and guide the pupils who have to achieve the common goals. However, in a classroom there are much more pupils than there are teachers. Students who then accomplished the common goal, such as the VWA or more importantly the SRDP, and would become more experienced members exit the community as they will enter a new discourse community depending on what they will do next.

Even though all six characteristics could be defined for the discourse community of upper grade pupils and teachers of an Austrian grammar school, the classification is not as simple as the example provided by Swales (1993) of the Hong Kong Study Circle, whose members are interested in stamps of Hong Kong and the usage of those stamps. Difficulties arise for instance in terms of the participatory mechanisms that are used to provide information and feedback. While members of the Hong Kong Study Circle have a “‘forum’ for intercommunication” which is a Journal and Newsletter, such a medium is at first sight, not easily found among the discourse community described above. Nevertheless, the website www.ahs-vwa.at could be regarded a platform that offers information and feedback to new members of the discourse community in an impersonal manner, as mostly materials and information are available rather than direct interaction between members of the discourse community. Therefore, not only teachers can be regarded members of the discourse community, but to some extent also the experts who work for the Austrian ministry of education and help to implement the new genre VWA. Characteristic number 2 has also been challenging to define for this discourse community. Even though pupils do communicate with pupils of other schools via social media platforms or also face-to face, the mechanisms of intercommunication among the members is again mostly taking place within single schools. However, overall goals such as passing the SRDP which comprises a set of sub-goals are shared among upper-level pupils in grammar schools. Furthermore, genres such as the VWA are common as well. Overall,

the SRDP is enhancing the establishment of a more or less single discourse community as schools have to become more homogenous across Austria.

3.3 Methodology of genre analysis

Bhatia (1993) is a proponent of the ESP approach who introduces a framework for analyzing unfamiliar genres. The framework consists of a set of seven steps in order to analyze a given genre (Bhatia 1993: 22-39), which were the basis for a new methodology of genre analysis created by Hüttner (2007: 97). Hüttner's (2007: 97) methodology proposes an extended genre analysis as a direct reaction to the findings of her study that there is a "non-trivial link between formulaic sequences and genre" and therefore, "taking the study of formulaic sequences as an integral part of genre analysis". As formulaic sequences will be investigated in this thesis as well, Hüttner's methodology of an extended genre analysis will be presented in the following passage. The description of Hüttner's (2007: 107-113) eight steps will also indicate major differences to the original seven step methodology introduced by Bhatia (1993). In accordance with Hüttner (2007: 107), *italics* indicates those parts of the model that have been added or altered in comparison to Bhatia's (1993) methodology.

1. Place genre *or genre constituent* in situational context

A difference to Bhatia's methodology is the integration of so called genre constituents which are "clearly distinguishable parts of genres, for instance, introductions in academic papers [...] where a clear communicative purpose can be identified" (Hüttner 2007: 102). The analysis of VWAs focuses predominantly on the introduction and conclusion section, therefore, the new concept of genre constituent is essential for this thesis as well. For the placement of the genre into its context, a writer's knowledge and experience about a text can be exploited, the text's internal clues can be identified or simple world knowledge one already has can be exploited. Knowledge about the genre is clearly higher in those people who actually belong to the community that frequently makes use of the genre. However, outsiders can get the missing information by studying the literature available (Bhatia 1993: 22).

2. Survey existing literature on the genre in question

Bhatia (1993: 22-23) suggests surveying existing literature in four different fields of the genre. First of all, literature on linguistic analyses of the genre should be considered. Secondly, examining literature concerned with the tools, methods or theories of genre analysis is proposed. Third of all, works such as guide books or manuals which are

relevant to the speech community should be taken into account. Finally, the professional or academic community's discussions of their beliefs and goals should be surveyed.

3. Select a corpus of genre texts *identified as belonging to one genre (or genre-constituent) by the relevant discourse community*

The selection of the right type and size of a corpus involves a clear definition of the genre one is intending to analyze, in order to differentiate the genre from similar genres. This definition can focus on the communicative purpose, the situational context or the textual features. Furthermore, clear criteria are essential to decide which texts belong to a certain genre and which do not. Finally, the researcher's objectives influence the size of the corpus. For example, a detailed analysis can be conducted on one long text while a large set of texts is employed for analyzing some features only (Bhatia 1993: 23-24). Hüttner (2007: 108) additionally proposes that "at this point the only selection criteria are that all the texts under investigation are classified as belonging to one 'group', or genre in the analyst's terms, by the discourse community". Whether the text is a prototypical example of the genre is not regarded important at this stage.

4. *Establish position of genre (constituent) within discourse community, addressing also question of hierarchical position of producers*

Positioning a genre within the discourse community involves two factors. On the one hand, the importance of a genre for its users has to be identified and on the other hand, "the hierarchical position of the producers of the genre" needs to be established (Hüttner 2007: 109). Knowledge about the importance of the genre and the producer's hierarchical position "provides insights on how central that genre is for its users, and in a further step on how important it is to teach this genre" (Hüttner 2007: 109-110).

5. Levels of linguistic analysis:

Hüttner (2007: 107) extends Bhatia's (1993: 24-34) three levels of linguistic analysis. The original levels "Analysis of lexico-grammatical features", "Analysis of text-patterning or textualization" and "Structural interpretation of the text-genre" are generally maintained (Bhatia 1993: 24-34). Moreover, the relation of genre-constituent to its larger genre is added. An analysis of genre-functional formulaic sequences is integrated in the extended genre analysis by Hüttner (2007: 107) followed by the bottom-up definition of the communicative purpose of the genre analyzed. According to Bhatia (1993: 24), the analysis can be carried out on one or more of his three levels described, depending on which level reveals the most significant characteristics of language of the genre.

- a. *if genre-constituent, define larger genre it is a constituent of*

As stated before, a genre-constituent has to be related to the larger genre it belongs to and the communicative purpose of the overall genre needs to be defined (Hüttner 2007: 110).

- b. *define genre structure*

The second level is concerned with the structure of a genre, i.e. the underlying moves. A bottom-up analysis is conducted to identify “specific communicative intentions as realized through text in the exemplars under investigation” (Hüttner 2007: 110). Bhatia (1993: 29) already claims that members of the discourse community are rather “consistent in the way they organize their overall message in a particular genre”. Defining the genre structure is divided into two further phases described below.

Phase one: distinguish between core and optional moves based on quantitative analysis

The identification of moves is followed by a quantitative distinction of core and optional moves. Core moves are essential components of a certain genre, while the occurrence of optional moves is not obligatory and their “absence might not matter” (Hüttner 2007: 110). Hüttner (2007: 110) sets a minimum frequency of 50% for core moves and 31% for optional moves that could be confirmed as core moves by experts of a genre. Moves occurring only in 30% of the texts or less are considered fully optional (Hüttner 2007: 110).

Phase two: refine quantitative model through incorporation of information from members of discourse community

After identifying the individual moves and classifying them as core or optional on the basis of a quantitative analysis, members of the discourse community are asked to provide additional information on the status of the moves (Hüttner 2007: 110).

- c. *analyse lexico-grammatical features including use of genre-specific formulaic sequences*

The analysis of lexico-grammatical features usually involves a quantitative study of certain features of language primarily used in this specific genre. Empirically gained insights about syntactic features of a specific genre are useful in order to confirm or dispute intuitive statements about the frequency of occurrence of specific lexico-grammatical features in a genre. Nevertheless, this level of analysis simply focuses on finding predominantly employed syntactic features of a genre without providing further information about how these features relate to the communicative purpose of the underlying genre (Bhatia 1993:

24-25). Hüttner (2007: 110) additionally focuses on genre-specific formulaic sequences which are sequences that are repeatedly used in the genre under investigation. Thereby, further characteristics of the genre can be identified.

d. analyse text-patterning or textualization

An analysis of text-patterning or textualization provides information on “the way members of a particular speech community assign restricted values to various aspects of language use (...) when operating in a particular genre” (Bhatia 1993: 26). As stated earlier, a solely quantitative analysis of lexico-grammatical features does not offer further explanations and therefore, the analysis of text-patterning is a vital complement to the findings of lexico-grammatical analysis by suggesting descriptions and clarifications of form-function relations (Bhatia 1993: 29).

e. analyse genre-functional formulaic sequences

Hüttner (2007: 97-98), recognizing the relationship between genre and formulaic sequences, focuses not only on the identification of genre-specific formulaic sequences but also on genre-functional formulaic sequences “i.e. those sequences that further the communicative purposes of a particular genre move”. Furthermore, Hüttner (2007: 111) claims that genre-functional formulaic sequences are “the most obvious genre-functional conventionalized type of linguistic realization, and as such co-constitutive of the genre as such”.

f. establish and refine communicative purpose in bottom-up way

The final point of analysis is concerned with defining the communicative purpose of the genre investigated (Hüttner 2007: 111). The results gained from a bottom-up analysis of the texts have to be approved by the discourse community in order to finalize the definition of the communicative purpose (Hüttner 2007: 11).

6. elicit information on effects, acceptability and appropriacy of linguistic realizations as perceived by members of the discourse community

The comprehensive linguistic analysis of the genre is followed by obtaining further details about the “effects, acceptability and appropriacy of particular linguistic realizations” from the discourse community (Hüttner 2007: 111). The qualitative information gained from the discourse community is essential for deciding “whether atypical examples are still acceptable to the discourse community” (Hüttner 2007: 111).

7. *establish sets of relationship of genre to other genres*

Hüttner (2007: 111) introduces a further new step within her extended genre analysis which focuses on establishing relationships between genres.

a. establish 'genre-set'

Point (a) focuses on the notion "genre-set" as described by Devitt (1991). Establishing a genre set is achieved by clarifying the position of the genre in the lives of the members of the discourse community in question (Hüttner 2007: 103). The focus lies on finding out which member of a discourse community produces specific genres and who the recipients of the genre are (Hüttner 2007: 111).

b. establish 'genre-(constituent)-colony'

A focus on the texts rather than the members producing and receiving it allows to define to which genre a genre colony belongs to (Hüttner 2007: 111). A genre colony "signifies a grouping of genres relevant to the same or closely related discourse communities, and is defined as containing overlaps in some of the core communicative intentions realized" (Hüttner 2007: 102). More specifically, Hüttner (2007: 112) claims that "at least one of the major communicative intentions" has to be shared by all member genres.

8. obtain feedback and further information on analysis by members of discourse community

Finally, feedback is sought from the discourse community on the linguistic analysis of the genre as well as the establishment of relationships between genres described in step 7 (Hüttner 2007: 112). Similarly, Bhatia (1993: 34) suggests to check the results by looking at the reactions of a specialist belonging to the discourse community of the genre analyzed. According to Bhatia (1993: 34), "the specialist reaction confirms his findings, brings validity to his insights and adds psychological reality to his analysis".

As an extended genre analysis with all the steps presented above would exceed the scope of this thesis, step five "levels of linguistic analysis" has been selected for a starting point of analysis in this thesis. A major focus of this thesis is the definition of the genre structure of the introductions and conclusions of the VWAs analyzed. Additionally, the use of formulaic sequences will be examined. In contrast to Hüttner (2007), this thesis will focus on formulaic sequences particularly common in academic discourse, as a set of target bundles identified by Simpson-Vlach and Ellis (2010) will be searched for in the whole VWA rather than only the introduction and conclusion sections. The focus on formulaic sequences will be considered in chapter 4 to a greater extent as further research has

maintained Hüttner's (2007) view that formulaic sequences and genre are connected. The following passage will provide a more detailed description of the analysis of genre structure of introductions and conclusions in academic writing.

3.4 Analysis of genre structure

After outlining the overall methodology of genre analysis, a more detailed description of step 5.b will be provided, as this is a central component of the ESP approach and because this thesis focuses on the structural analysis of the genre VWA. A great number of researchers have analyzed research articles or certain parts of research articles such as introductions (Swales 1990; Samraj 2002), abstracts (Samraj 2005) or discussion sections (Kanoksilapathan 2005) by defining the underlying move structure. The reasons for the interest on the genre of research articles are manifold, for instance RAs are a central genre within English for Academic Purposes that "refer[s] to any English teaching that relates to a study purpose" (Dudley-Evans & St John 1998: 34). Furthermore, Swales' (1990) pioneering work on research article introductions and the establishment of the Create a Research Space (CARS) model promoted further studies on research articles.

The following chapter will provide a detailed description of the CARS model because the model will be a point of reference for the analysis of VWA introductions as well. Furthermore, applications of the model by other researchers focusing on research articles but also master's theses, PhD theses as well as student papers will be summarized. Even though conclusions are not as thoroughly analyzed as introductions yet, a model of a general move structure will be presented in addition to further findings gained through additional research.

3.4.1 Move structure of research article introductions: The Create a Research Space model

Introductions are widely analyzed, even though or because the composition of this section is recognized as troublesome among academic writers (Swales 1990: 137). Swales (1981) offers a useful model which summarizes the structure of research article introductions by providing a four move structure named Create a Research Space model (CARS). While the original CARS model comprised four moves, the revised models in 1990 and 2004 demonstrate a three move structure. In this section, the model presented in 2004 will be focused on and modifications between the model from 1990 and 2004 will be addressed.

Figure 2 is the latest version of the CARS model by Swales (2004: 230-232). The three move structure proposed in 1990 is maintained. However, Swales (2004) adjusted the

CARS model on the basis of findings by researchers applying the CARS model such as Samraj (2002) or Anthony (1999).

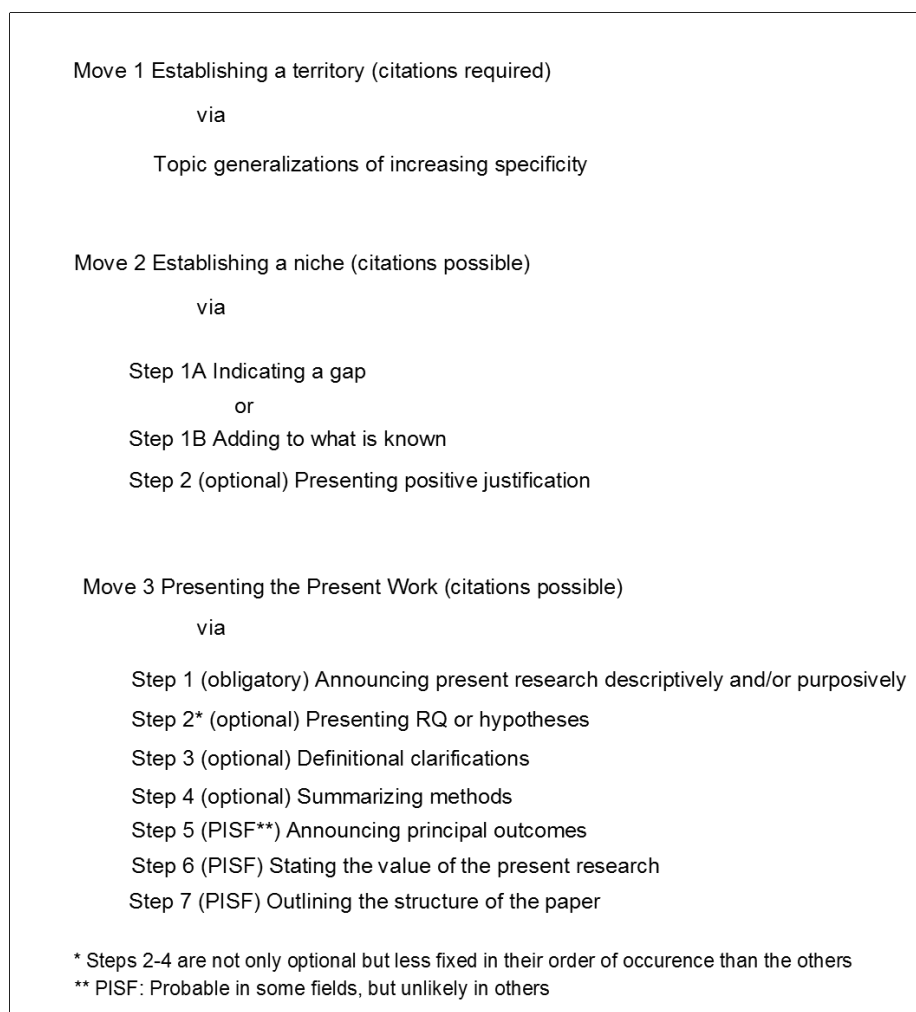


Figure 2: Swales' revised CARS model (Swales 2004)

Within the earlier model, three steps are identified which make up move 1, “claiming centrality”, “making topic generalizations” and “reviewing items of previous research” (Swales 1993: 141). Step three is neglected because further research demonstrated that statements reviewing previous research occur throughout the introduction as well as the whole article (Swales 2004: 227). Furthermore, difficulties in distinguishing between “claiming centrality” and “making topic generalizations” steps within introductions analyzed led to announcing a single step called “topic generalizations of increasing specificity” in the revised model.

The underlying steps of move 2 are adjusted in the new CARS model as well. Initially, the following steps are suggested by Swales (1993: 141):

- Step 1A Counter claiming
- Step 1B Indicating a gap

- Step 1C Question-raising
- Step 1D Continuing tradition

Two major alterations are visible in the latest version. Firstly, the four steps listed above are revised and only two steps are offered: indicating a gap or adding to what is known. Step 1D is neglected because it “seems a rather odd choice of nomenclature” (Swales 2004: 229). Furthermore, the functions fulfilled by the steps “question-raising” and “counterclaiming” are rather similar to the function of step 1B “indicating a gap” which lead to a reduction to a single step. Secondly, a study conducted by Samraj (2002: 15) influenced Swales’ adjusted model as he adds the optional step “presenting positive justification” which is prevalent in Samraj’s (2002) findings.

The final move “occupying the niche” is revised and also elaborated by Swales (2004: 231-233). For instance, the move is renamed into “presenting the present work” and the original steps “outlining purposes” or “announcing present research” are reduced to the single step “announcing present research descriptively and/or purposively”. Moreover, steps two to four shown in Figure 2 are added to the revised model. Furthermore, the revised model consists of steps that are “probable in some fields, but unlikely in others” (PISF). For instance, the original steps “announcing principal findings” and “indicating RA structure” have been substituted by “announcing principal outcomes” and “outlining the structure of the paper”, respectively belonging to the PISF steps (Swales 2004: 232).

This section aimed at providing an overview of the revised CARS model by Swales (2004) in addition to outlining the differences between the revised model and the model of 1990, mostly on the level of steps. The next section will summarize studies applying the CARS model to analyze the introduction section of research articles.

3.4.2 Literature Review: move structure analysis of research article introductions

The widespread application of Swales’ (2004) CARS model has not only led to further revisions of the model as has been shown to some extent in the previous section and will be further described in this section but also signifies the usefulness of the model for conducting a move structure analysis. While Swales (1981) initially analyzed research articles from 14 different fields, other researchers focused on one particular field (Anthony 1999; Kanoksilapatham 2011) or made comparisons between various disciplines (Samraj 2002; Kanoksilapatham 2012). The studies by Anthony (1999) and Kanoksilapatham (2011) on the one hand, indicate that the CARS model can be deployed for analyzing the rhetorical structure of research article introductions and on the other hand, imply that disciplinary variations still need to be taken into account. Therefore, studies comparing

various disciplines offer interesting findings about distinguishing features especially on the level of individual steps. Central outcomes of the studies conducted by Anthony (1999), Samraj (2002) and Kanoksilapatham (2011; 2012), will be outlined in the following section.

Anthony (1999: 38) aimed at answering the following question: “how well do general descriptions of RAs accurately account for the writing in a specific discipline” by analyzing the accuracy of Swales’ (1990) CARS model for structuring RAs in software engineering. The findings suggest that the model is regarded appropriate for the description of the overall framework (Anthony 1999; 45). However, the definitions of individual steps often lack a more detailed description and more importantly the step “evaluation of research” which has been identified as obligatory in software engineering RAs is not available in the CARS model of 1990. Swales (2004: 231) considers the results of this study in his revised CARS model by adding the step “stating the value of the present research”. Even though Anthony (1991: 43) found an extensive review of background literature in the research articles analyzed, Swales (2004) neglected the step in the revised model as it cannot be defined as a single structuring move as the step is present all over the introduction section (Swales 2004: 227).

A second study focusing on a specific discipline has been conducted by Kanoksilapatham (2011) who has been interested in the structure of research article introductions in civil engineering. The move analysis is based on Swales’ (2004) revised CARS model and a major objective is not only to identify moves and steps within the introductions but also to find out about the frequency of occurrence and the typical sequence. In addition to the structural analysis, the study is interested in the linguistic realizations of the moves and steps identified (Kanoksilapatham 2011: 62). The results show that Swales’ (2004) three move structure is apparent in the civil engineering introductions. On the level of individual steps, similarities and differences to Swales’ (2004) model are visible. For instance, while move 1 of the new CARS model suggests a single step only, the original three step structure presented in the 1990 model, namely “claiming centrality”, “making topic generalizations” and “reviewing previous studies”, seems more appropriate for the civil engineering introductions because also newcomers benefit from a more concrete structure (Kanoksilapatham 2011: 65). The steps found in move 3 are mostly congruent with the steps maintained by the CARS model. Two steps not covered by the CARS model were encountered, while two steps suggested by the model (Step 2 presenting research questions or hypotheses/ Step 3 definitional clarifications) could not be observed in the analyzed texts. The first novel step “justifying procedural decisions” is employed in order to prove to the reader that the procedures “are well thought-out and carefully selected”

(Kanoksilapatham 2011: 65). The second step identified is “describing study sites” which is considered necessary in civil engineering as “this discipline focuses on harnessing natural forces to improve and protect environment” (Kanoksilapatham 2011: 66). Therefore, in order to enable readers’ appreciation of the research accounts, describing the study site is perceived to be important (Kanoksilapatham 2011: 66). In terms of frequency, move 1 and move 3 were identified in all research article introductions, whereas, move 2 occurred only in 72% of the introductions. Furthermore, the typical sequence of these moves is in line with Swales’ (2004) findings with move 1 being the initial move, while move 3 being the final move. Finally, the linguistic analysis indicates that “each move or step seems to use a particular set of linguistic features to help achieve its communicative function” (Kanoksilapatham 2011: 78). For example, the communicative purpose of move 2 in civil engineering articles is to indicate a gap in previous research and linguistic characteristics are the use of non-past tenses such as simple present tense or present perfect tense. The lexical words used in this step are very diverse, however a corresponding semantic category of negative evaluation is found to some extent (Kanoksilapatham 2011: 71). Additionally, formulaic expressions such as *the purpose of this paper is* represent a further linguistic feature of this step.

On the basis of the findings of Kanoksilapatham’s study in 2011, a second study has been conducted that additionally investigated disciplinary variations on the level of individual moves and steps (Kanoksilapatham 2012). Three subdisciplines within the field of engineering have been analyzed, namely civil, software and biomedical engineering (Kanoksilapatham 2012: 299). The analysis revealed that even though all three subdisciplines generally follow the three move structure suggested by Swales (2004), disciplinary variations could be identified (Kanoksilapatham 2012: 300). For example, the study revealed a varying reliance on certain steps within each of the three moves. For instance, “centrality claims” have been equally common in software engineering and biomedical engineering with about 75%, whereas, civil engineering uses this step rather infrequently (about 48%). The maturity of the research field of civil engineering is a probable reason for neglecting step 1 (Kanoksilapatham 2012: 304-305). Furthermore, the findings of two further steps within move 3 “offering procedural justification” and “describing study site” by Kanoksilapatham (2011) are integrated in this study as well and both steps also reveal disciplinary variations as the steps can be detected in civil engineering but only infrequently or even not at all in software and biomedical engineering. The most central outcome of the study is “that each subdiscipline is a discourse community with its own inherent cultural and pragmatic norms and values” (Kanoksilapatham 2012: 307).

An earlier study by Samraj (2002: 2) also addressed the question, whether the CARS model can be employed among different disciplines, in this case Wildlife Behavior and Conservation Biology. The structural differences identified within individual steps across the two disciplines as well as observable drawbacks of the CARS model (1990) led to the establishment of a new model. The findings of this study influenced Swales' (2004) revision of his CARS model, which has been mentioned earlier. The overall three move structure is shared by both disciplines, supporting the general framework of the CARS model (Samraj 2002). Similarly to Kanoksilapatham's (2012) findings, major differences to Swales' (1990) model as well as between the two disciplines are observable within individual steps. For instance, while centrality claims are not frequently employed in Wildlife Behavior introductions, Conservation Biology commonly relies on this particular step (Samraj 2002: 4-5). Samraj (2002: 6) criticizes the steps "making topic generalizations" and "reviewing items of previous research" as they cannot be clearly distinguished and consequently, summarizes them into a single step. Samraj's (2002: 8-10) study shows that introductions in Wildlife Behavior establish a niche by indicating a gap in previous research which is accompanied by a new step not identified by Swales (1990), which "provide[s] positive reasons for conducting the study reported" in some cases (Samraj 2002: 9). In contrast to Wildlife Biology, Conservation Biology predominantly indicates a gap in the real world. However, the most prominent step is again one not covered by the CARS model and only observable in Conservation Biology. Namely, move 2 is realized by justifying the present research by emphasizing problematic environmental circumstances (Samraj 2002: 10). A disciplinary variation as well as an addition to Swales' (1990) model is detected within the Wildlife Biology introductions which commonly describe the species researched in the study extensively. Therefore, in the revised model by Samraj (2002: 15) this step is presented as a sub-step of step 1 in Move 3, even though the step could be an independent move in some introductions. Overall, the results support Samraj's (2002: 16) final claim that "the structure postulated for a genre hence has to incorporate within it various degrees of flexibility".

The studies outlined in this section directly and indirectly share pedagogical implications about the usefulness of structural analysis, a standard model and the disciplinary variations that need to be taken into account. First of all, all scholars identify the overall framework of the CARS model as advantageous for analyzing the structure of research article introductions of various disciplines. Secondly, especially non-native speaker scholars benefit from the explicit knowledge about the generic structure of research article introductions. On the one hand, these researchers can enhance their academic reading skills and on the other hand are equipped with a helpful structure for actually writing an

article within a certain discipline (Kanoksilapatham 2012: 306). However, the disciplinary variations found by the researchers (Anthony 1999; Samraj 2002; Kanoksilapatham 2011; 2012) indicate the third pedagogical implication which is that the variability needs to be considered when teaching the CARS model. For instance, Samraj (2002: 15) claims “that instructors need to point to possible variations in text structure across disciplinary boundaries”. Similarly, Kanoksilapatham (2012: 307) argues that “in addition to genre knowledge, learners should be made consciously aware of, and sensitive to, specific disciplinary expectations or preferences of a genre in their own discipline”.

3.4.3 Literature Review: move structure analysis of student texts with a focus on introductions

The previous section has shown that, even though disciplinary variations on the level of individual steps are observable and need to be considered, the overall structure of the CARS model can be seen as a useful framework for writing research articles. Furthermore, scholars have mostly analyzed introductions as well as other parts of research articles, while academic texts written by students have been examined less frequently. A small number of researchers has focused on student-produced texts, though, such as Hüttner (2007) analyzing student papers, Samraj (2008) researching master’s theses or Bunton (2002), Soler-Monreal (2011) and Ono (2012) investigating PhD theses. All studies considered Swales’ (1990; 2004) CARS model to some extent but as a more varied set of text types has been analyzed than research articles, a set of new models or revised CARS models have been established.

Hüttner (2007) conducted an extended genre analysis of student texts with a focus on introductions and conclusions of linguistics papers and presented insightful findings. The methodology employed in order to detect individual moves involved identifying communicative intentions within the texts which are then grouped into strategies or steps. Afterwards, a decision had to be made whether those strategies and steps fulfill an overall communicative purpose and thus, need to be summarized within a single move (Hüttner 2007: 126). The analysis of student papers led to three core moves “leading into the topic”, “stating purpose” and “previewing contents” and two optional moves “giving extra editorial information” and “acknowledging gratitude” (Hüttner 2007: 130) and further strategies and steps. However, the identified structure has been discussed with experts and the appropriateness and importance of individual moves, strategies and steps has been

negotiated (Hüttner 2007: 141-146). The expert information led to a revised model of student paper introductions presented in Figure 3 (Hüttner 2007: 149).

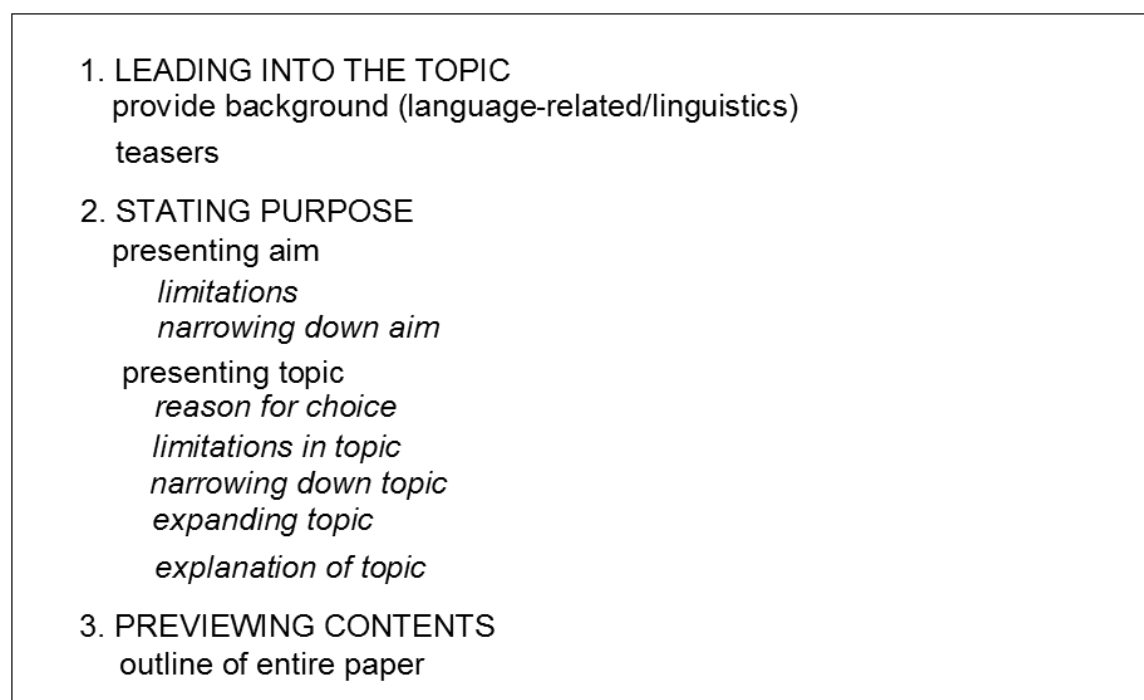


Figure 3: Overview move structure of student paper introductions (Hüttner 2007: 149)

The three core moves are maintained, while the optional moves have been disregarded because they have been classified as inappropriate (Hüttner 2007: 148). As the papers analyzed have been written by non-native speakers of English, a comparison with texts written by native speaker students has been made in order to investigate the influence of language. The comparison supports the genre-structure identified in non-native speaker texts and “indicates that status as language learner seems to have little influence in the discourse community of students of linguistics and on the genres owned by it” (Hüttner 2007: 150). A further comparison has been made between the identified structure of student paper introductions and Swales’ (2004) CARS model. The most striking difference is the absence of move 2 “establishing a niche” found in research article introductions which mainly serves self-promotional ambitions. Hüttner (2007: 151) claims that this difference is not surprising as students “are not required to vie for readership, but only need to fulfill the task of synthesizing previous research”. A resemblance between the moves “leading into the topic” and “establishing a territory” could be identified, even though students commonly present personal motivations for choosing a topic. Similarities between individual steps of move 3 of the CARS model and Hüttner’s model could be identified as well. For instance, the step “announcing present research descriptively and/or purposively” corresponds with the move “stating purpose” present in student paper introductions. Furthermore, the step “outlining the structure of the paper” is also employed in students’

papers as the move “previewing contents” has been detected. The study reveals that clear differences between research article introductions and student paper introductions exist. A main reason is a differing communicative purpose. For example, students’ principal purpose of displaying knowledge is less prominent in research articles written by experts. Additionally, experts’ aim to place their research positively in the context of existing research and the competition for readership are purposes not shared by students as they have a clear readership and do not intend to come up with new research findings (Hüttner 2007: 151). Therefore, student paper introductions and research article introductions “should be considered two separate genre constituents” (Hüttner 2007: 151).

A second study investigates master’s theses introductions in three disciplines, namely philosophy, biology and linguistics (Samraj 2008). Samraj (2008: 56) considers the master’s theses as a “student-produced genre that fills a place somewhere in between student-produced course papers, on the one hand, and published research articles, on the other, in a taxonomy of academic writing”. Instead of Swales’ (1990) original CARS model, a revised CARS model established by Samraj (2002) has been employed. Major differences between Swales’ model and the revised model (Samraj 2002) have already been outlined in section 3.4.3 such as summarizing two steps of move 1 of Swales’ model into a single step “review literature or present topic generalizations”. Not only research article introductions vary across disciplines in terms of the move structures employed, but so do master’s theses. The biology and the linguistics introductions are mostly similar to each other in terms of the structural organization of moves. Major differences are only identified in move 3 as biology introductions frequently present hypotheses as well as discuss the background of certain species analyzed or the sites that are studied, whereas these steps are infrequently or never employed in linguistics introductions (Samraj 2008: 65). Linguistics introductions, however, frequently employ the step “preview organization of thesis” which is never used in biology master’s theses. Presenting the organization of the thesis is as commonly used in philosophy introductions as in linguistics introductions, though, in philosophy the step is even more elaborated than in linguistics (Samraj 2008: 62). In general, the philosophy introductions vary most from the proposed model as none of the moves has been employed in all theses analyzed. In contrast to biology and linguistics introductions which both make centrality claims in move 1, philosophy introductions mostly employ the step “present topic generalizations”. Furthermore, the introductions in philosophy introduce the topic mostly without making references to previous research, whereas biology and linguistics introductions both usually justify the research in terms of previous research (Samraj 2008: 65).

The final “student-produced genre” (Samraj 2008: 56) outlined in this section is the PhD thesis. Important research has been conducted by Bunton (2002) who analyzed the move structure of PhD thesis introductions written in various disciplines. The CARS model by Swales has been influential in this study once more by using the three core moves “as a starting point for the analysis” (Bunton 2002: 62). The individual steps were identified by considering the CARS model as well as the steps identified by Dudley-Evans (1986: 135) who analyzed Masters dissertations. The main outcome of this study has been the creation of a modified CARS model for PhD theses introductions presented in Figure 4 (Bunton 2002: 74).

Often present	Occasionally present
Move 1: Establishing a Territory	
STEPS	
1: Claiming centrality	
2: Making topic generalisations and giving background information	Research parameters
3: Defining terms (Eg, A, So)	
4: Reviewing previous research	
Move 2: Establishing a Niche	
STEPS	
1A: Indicating a gap in research	
1B: Indicating a problem or need	
1C: Question-raising (So, A)	Counter-claiming
1D: Continuing a tradition (M, So)	
Move 3: Announcing the Present Research (Occupying the Niche)	
STEPS	
1: Purposes, <i>aims</i> , or <i>objectives</i>	<i>Chapter structure</i>
2: Work carried out (Eg, Si)	<i>Research questions/ Hypotheses</i>
3: <i>Method</i>	<i>Theoretical position (So)</i>
4: <i>Materials or Subjects</i>	<i>Defining terms</i>
5: Findings or Results	Parameters of research
6: <i>Product of research (Eg)/ Model proposed (So)</i>	
7: Significance/ Justification	<i>Application of product (Eg)</i>
8: Thesis structure	Evaluation of product (Eg)

Figure 4: Bunton’s (2002) modified CARS model

In total, eleven steps have been added to the original model, with ten steps occurring in move 3 proposedly due to the length of the document as well as the more extensive period of time in which a PhD research is conducted (Bunton 2002: 66). The only move newly identified within move 2 is “indicating a problem or need” which was found to be a commonly employed step within PhD theses introductions (with about 69%). Similarly to

the findings about disciplinary variations within research article introductions, differences could be identified between PhD thesis introductions written in various fields. For example, the step “defining terms” of move 1 has been predominantly used in the fields Engineering, Arts and Social Sciences. Bunton’s (2002) model has been employed within later studies also investigating PhD thesis introductions that will be summarized in the next section.

Studies by Soler-Monreal, Carbonell-Olivares and Gil-Salom (2011) and Ono (2012) have investigated PhD theses’ introduction sections as well and focus on the two disciplines computing and literature, respectively. Both studies are concerned with cross-cultural differences as not only PhD theses written in English have been analyzed but also PhD theses written in Spanish (Soler-Monreal, Carbonell-Olivares & Gil-Salom 2011) and Japanese (Ono 2012). The basis for the investigation is the revision of Swales’ (1993) CARS model proposed by Bunton (2002) that is presented in Figure 4 in the previous paragraph. Even though Bunton’s (2002) framework has been the basis for both studies, alternative models have been established based on the research findings. A study conducted by Carbonell-Olivares, Gil-Salom and Soler-Monreal (2009) investigating Spanish PhD theses introductions revealed further steps and also a set of sub-steps for the discipline analyzed. Figure 5 presents the additional steps not identified by Bunton (2002) as well as the sub-steps detected (Carbonell-Olivares, Gil-Salom & Soler-Monreal 2009: 161).

Move 1: Establishing a Territory

2: Making topic generalisations and giving background information

SS2A: indicating a problem /need

SS2B: Indicating limitations

SS2C: Giving examples

SS2D: Defining terms (+ classification)

SS2E: Giving or anticipating solutions (or ways to solve problems / to tackle needs)

5: Explaining the institutional /research group context

[Summarising previous background information]

Move 3: Announcing the Present Research (Occupying the Niche)

2: Work carried out/ Announcing research

SS2A: Work done

SS2B: Work or aspects out of scope

SS2C: Previous requirements

3: Field of research

6: Findings or Results (Announcing or predicting principal findings)

May be presented as *Product of research/Model proposed, contributions or solutions

8: Thesis structure

SS8A: Overall thesis structure

SS8B: Chapter structure

SS8C: Chapter contents

SS8D: Chapter goal

Figure 5: Overview moves, steps and sub-steps identified in Spanish PhD theses (Carbonell-Olivares, Gil-Salom & Soler-Monreal 2009: 161)

The most striking differences to Bunton's (2002) model are the division of move 1 step 2 as well as move 3 step 2 and step 8 into a set of sub-steps as can be seen in Figure 5. Two steps added are for example, "explaining the institutional/research group context" and "field of research" (Soler-Monreal, Carbonell-Olivares & Gil Salom 2011: 5). Ono (2012), investigating literature PhD theses, adapted Bunton's (2002) model as well in order to express all communicative intentions of this particular discipline. However, only the most central adjustments will be addressed. A set of sub-steps is suggested for the step "indicating a gap in research" as different ways of expressing a gap have been identified such as indicating "a lack of research" or "a problem" (Ono 2012: 198). However, the most significant steps added to the model are "presenting fictional work and/or its author" and "writer-centred statement", which are integrated into move 3 (Ono 2012: 196). Both steps are strongly connected to the field of literary studies and therefore, also indicate disciplinary variations of introduction sections of PhD theses. Furthermore, both studies identify cultural differences on the level of moves as well as individual steps. A main contrast between the introductions of English PhD theses and Spanish PhD theses is that the former follow the M1-M2-M3 structure, while M2 is regarded an optional move in the

latter group (Soler-Monreal, Carbonell-Olivares & Gil-Salom 2011: 7). Nevertheless, Ono (2012: 209) revealed that move 2 has been less than frequent realized in the English introductions. The somewhat contrasting finding by Ono (2012: 209) led to the proposition that disciplinary variations influence the identified differences of the importance of move 2 in PhD thesis introductions. Both studies presented in this paragraph indicate not only disciplinary variations in this specific student-produced genre but also cross-cultural differences such as a greater number of steps and a more complex structure within English PhD thesis introductions in comparison to Japanese and Spanish introductions causing longer introductions as well as a cyclical structure of moves.

The studies outlined in this section provide essential findings about student-produced genres on three different levels of proficiency, namely seminar paper introductions, Master's thesis introductions and PhD thesis introductions. Swales (1990; 2004) has been influential for the analysis of these student texts as well by providing a general framework the researchers can base their studies on. However, the student paper introductions differ most from research article introductions as well as Master's and PhD theses introductions since a new framework has been identified neglecting the persuasive steps of move 2 as introductions fulfill a different communicative purpose. Except from Philosophy Master's thesis introductions and English literature PhD thesis introductions, move 2 "establishing a niche" has been identified as an obligatory move in introductions. Furthermore, the studies have shown that Swales' (1990; 2004) model has to be adjusted in order to present the move structure of different types of student texts appropriately.

3.4.4 Literature Review: move structure of research article conclusions

The outline of studies concerned with the introduction section of research articles and a set of student-produced texts has not only shown that Swales' (1990; 2004) CARS model is widely applicable and also adaptable. A widely acknowledged model such as the CARS model has not been established for analyzing the move structure of research article conclusions and therefore, no single model has been influencing studies on student-produced genres. Moreover, conclusion sections have been less widely researched overall. Even though the discussion section has often been equated with the conclusion sections, the following section will focus on studies concentrating on the conclusion section rather than the discussion section which in this particular case means that a single study will be the main point of reference (Yang & Allison 2003). Furthermore, differences to the discussion section will be proposed.

The lack of a clear and widely accepted differentiation between the discussion and conclusion section has led to a number of studies focusing on discussion sections and not conclusions. Yang and Allison (2003: 367) analyze the move structure of research article conclusions within the field of applied linguistics as they are interested in how research articles “proceed from first presenting results to eventually offering final conclusions or some other form of closure”. Therefore, close move structure analyses of the results, the discussion as well as the conclusion section have been conducted. However, the move structure of the conclusion section will be considered only. Overall, 65% of the articles analyzed have a conclusion section. A three move structure has been identified among the research article conclusions analyzed that is shown in Figure 6.

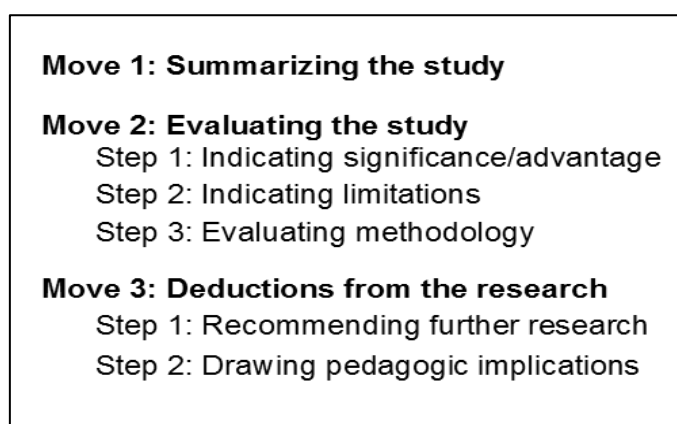


Figure 6: Move structure of research article conclusions (Yang & Allison 2003: 379)

Move 1 “summarizing the study” is found most commonly within those papers which have a conclusion section. Overall, 18 instances of this particular move have been identified. Therefore, as only 13 research articles have been analyzed in total, a cyclical structure of this move is indicated as some of the articles analyzed must have employed move 1 more than once (Yang & Allison 2003: 379). In general, though, a linear structure has been identified in the conclusion sections as can be seen in Figure 6. In move 3 “deductions from the research” a more frequently employed step has been “drawing pedagogic implication” with an average occurrence of 1.1 per section. The analysis of the separate conclusion section displays differences between the discussion section and the conclusion section. Yang and Allison (2003: 379) suggest that “the discussion focuses more on commenting on specific results, while the Conclusion concentrates more on highlighting overall results and evaluating the study”. Within the discussion section a focus lies on “commenting on results” which is achieved by “interpreting, accounting for, evaluating or comparing with previous work” (Yang & Allison 2003: 380). In contrast, the conclusion is concerned with the summary of the research “by highlighting the findings, evaluating and pointing out possible lines of future research as well as suggesting implications for teaching and learning” (Yang & Allison 2003: 380).

Despite the distinguishing characteristics of discussion and conclusion sections claimed by Yang and Allison (2008: 380), a recent study investigating the structure of whole research articles across five engineering fields (Maswana, Kanamaru & Tajino 2015: 7) is interested in the “concluding section” which “utilized many different headings” such as “conclusion”, “discussion and conclusions”, or “summary and conclusion” etc. The move structure has been analyzed and no moves common within all sub disciplines could be revealed (Maswana, Kanamaru & Tajino 2015: 7). Rather than exploring the reasons for these varying headings and their influence on the move structure, the fact that no common move exists seems to be accepted by the authors who have conducted the research.

3.4.5 Literature Review: move structure analysis of student texts with a focus on conclusions

Conclusions within student produced texts in the field of academic writing have also been analyzed rather infrequently. Therefore, findings by Hüttner (2007), analyzing student paper conclusions and Bunton (2005), focusing on the concluding sections of PhD theses will be summarized only.

Hüttner (2007) did not only focus on introductions in student papers but also the rhetorical structure of conclusions. The analysis of the structure of the papers as well as the information gained by experts led to three core moves with a number of strategies and steps (Hüttner 2007: 220). Figure 7 presents the genre structure proposed in this study (Hüttner 2007: 220).

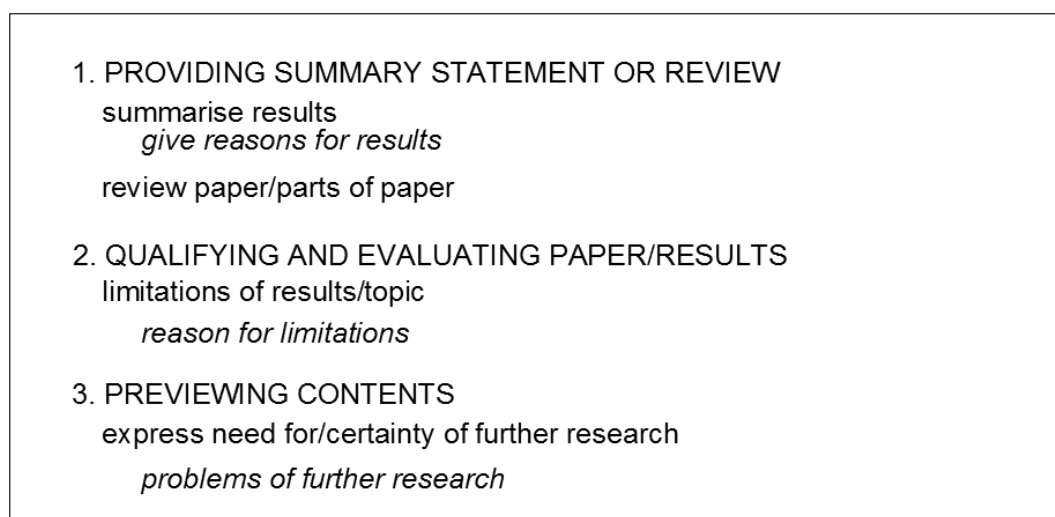


Figure 7: Overview of move structure of student paper conclusions (Hüttner 2007: 220)

Originally, the analysis of non-native speaker student papers offered a fourth move that could not be considered a core move by frequency alone which was “providing a personal reflection” and therefore, it has been neglected after discussing its status with experts.

Furthermore, clearly optional moves have been identified as well: “presenting new information”, “appeal to reader” and “acknowledging gratitude” (Hüttner 2007: 192). Experts confirm the optional status of the moves “appeal to reader” and “acknowledging gratitude” while the optional status of “presenting new information” is regarded problematic because of the inappropriateness within the genre-constituent. The comparison of the move structure of non-native speaker students’ conclusions with native speaker conclusions supports the basic genre structure presented in Figure 7. Even though the two moves “reflection” and “presenting new information” were present in native speaker conclusions at a very low rate as well, they are still considered inappropriate (Hüttner 2007: 223). Comparing the conclusions produced by students to research article conclusions written by experts reveals clear differences. Despite the overall aim to provide closure to the research conducted, experts promote their texts and defend the research against probable criticism which is not observable in student texts. Learners are found to state the limitations encountered, however, providing clear interpretations and warding off criticism is regarded as being beyond students’ linguistic ability. Moreover, “as they have no research programme, they have no need to give a clear indication of how the limitations of their papers can be overcome in future research” (Hüttner 2007: 227). Finally, the optional moves identified in student texts did not occur in research article conclusions at all. Even though both types of conclusions seem to share the communicative purpose to some extent, the student paper conclusions have to be regarded as distinctive genre-constituents from research article conclusions written by experts (Hüttner 2007: 227).

Bunton (2005) analyzes PhD conclusion chapters of science and technology disciplines as well as humanities and social sciences. A concluding section seems obligatory in PhD theses as 41 of 45 theses analyzed contained at least one chapter playing a concluding role, even if the titles of those chapters differ a lot. Locating the conclusion sections was not as straightforward as identifying the introduction section. For instance, three theses contained two chapters that are regarded as a conclusion section while three theses only perform a concluding role within “the final section of a longer final or penultimate chapter” (Bunton 2005: 211). The reverse is found for research articles, as conclusion sections are predominantly found to constitute the final part of the “discussion section” rather than making up a whole section (Bunton 2005: 212). The analysis of the move structures of the conclusion sections reveals that they differ from the research article conclusion sections subsumed in the discussion section mainly because of a wider range of moves and also steps. Similar to previous findings about disciplinary variations, the study shows deviations between science and technology disciplines and theses written in the humanities and social sciences (Bunton 2005: 223). A distinction had to be made between thesis-oriented

conclusions and field-oriented conclusions. The former, focusing on the thesis itself, is predominantly found across the PhD thesis conclusions analyzed. The latter type is only identified in eight PhD theses and the main focus is on the field itself, whereas the findings of the thesis are mentioned less prominently (Bunton 2005: 214-215). The move structure of thesis-oriented conclusions will be considered further in this section as this type seems to be the norm. Science and technology thesis-oriented PhD conclusions comprise the following four move structure:

- Move 1: introductory statement
- Move 2: consolidation of research space
- Move 3: practical applications and recommendations
- Move 4: future research

Move 1,2 and 4 are present in more than 50% of the theses analyzed while Move 3 has a frequency of 36% only. Humanities and social sciences thesis-oriented PhD conclusions comprise a total number of five moves in more than 25% of the thesis analyzed. Besides move 1 to 4 listed above a fifth move “concluding restatement” has been identified in 27% of the theses. In contrast, move 5 has only been identified in 4% of the science and technology thesis conclusions and thus, has been neglected in the overall framework (Bunton 200: 217-219). Another contrast between the two groups of theses can be seen in terms of the frequency of move 3 and 4. Move 3 was not as common as the other moves in the science and technology thesis conclusions but rather frequent in humanities and social sciences thesis conclusions (55%). Quite the opposite is true for move 4 which is employed frequently in science and technology thesis conclusions (80%) and only in 36% of those thesis written in the humanities and social sciences (Bunton 2005: 219). Furthermore, concluding sections in the humanities and social sciences tend to be of greater length and also contain more sections than science and technology PhD thesis conclusions (Bunton 2005: 223).

The section has shown that only two studies can be found that focus on conclusions rather than on discussion sections in student produced texts. While Hüttner (2007) proposes a three move structure of conclusion of student papers, Bunton (2008) identifies five moves overall and distinguishes between two frameworks based on the disciplinary variations identified. As a conclusion section is obligatory for pupils writing a VWA, insights about the move structure of conclusions in student-produced texts at the university level were summarized for a better understanding of this specific section of an academic text.

This chapter has offered a short overview of genre analysis by outlining the three schools of genre theory and a more detailed description of the ESP approach. Within the ESP

approach, Bhatia (1993) first established a methodology of genre analysis that can be employed for the analysis of unfamiliar genres. Hüttner (2007) introduced an extended genre analysis on the basis of Bhatia's (1993) methodology, however major adjustments concerned the investigation of formulaic sequences as well as the greater integration of members of the discourse community. As this thesis is interested in the structural analysis of VWA introductions and conclusions, a more detailed description of findings with regard to these parts of academic papers has been provided. The great influence of Swales' (1990; 2004) CARS model on the analysis of research article introductions but also on student-produced texts such as Master's thesis and PhD thesis has supported the intention of comparing the "standard" CARS model to the move structure identified in the VWA introductions. Even though no comparable model has been introduced for the structure of conclusions, the framework by Yang and Allison (2003) will be compared to guiding questions for the conclusion section of the VWA, as the focus is clearly on conclusions rather than on discussion sections which many studies do not differentiate. Furthermore, Yang and Allison's (2003) model has been chosen for the comparison, as it represents the move structure of conclusions written by experts. In contrast, Hüttner's (2007) model, derived by analyzing seminar paper conclusion sections, has been disregarded for the overall comparison to the ministerial guiding questions because of the students' newcomer status to the field of academia themselves. Besides the analysis of the structure of the VWA introductions and conclusions, the link between genre and formulaic sequences that has been proposed by Hüttner (2007) will be investigated further. Therefore, the next chapter will focus on the also relatively new field of research on formulaic language.

4. Formulaic language

[F]luent and idiomatic control of a language rests to a considerable extent on knowledge of a body of 'sentence stems' which are 'institutionalized' or 'lexicalized' (Pawley and Syder 1983: 191).

[R]outinized formulas and other sorts of prefabricated language chunks, which are products of this ritualization, seem to play a large part in both acquiring and performing language (Nattinger and DeCarrico 1992:1).

Multi-word expressions are an important component of fluent linguistic production and a key factor in successful language learning (Hyland 2008a: 4).

Formulaic sequences are, in essence, a major part of the foundation of successful academic writing skills because they comprise the basic elements of academic discourse and are specific to particular disciplines, registers, and genres (Wood 2015: 103).

The four quotes demonstrate not only that formulaic sequences have been an interesting field of research for many years now, but more importantly, emphasize central aspects why these "routinized" or "lexicalized" formulas have already been analyzed from various perspectives but also still need to be investigated further. Pawley and Syder (1983), Nattinger and DeCarrico (1992) as well as Hyland (2008a) stress that not only language learning is strongly connected to formulaic language but so is successful usage of a language. Furthermore, the capability of using formulaic sequences has been found to be essential in order to belong to a specific discourse community. For instance, Wood (2015) describes formulaic sequences as being indispensable prerequisites for becoming a successful writer in the field of academia. Various researchers have focused on detecting formulaic sequences especially relevant for academic writing (Simpson-Vlach & Ellis 2010; Chen & Baker 2010; Liu 2012; Martinez & Schmitt 2012). Not only native speakers' use of formulaic sequences has been of interest (Simpson-Vlach & Ellis 2010; Cortes 2004; Simpson 2004; Hyland 2008a; 2008b), but also how such sequences are employed by non-native speakers and what major differences in the usage of these phrases between those two groups are (Ädel & Erman 2012; Chen & Baker 2010). Hüttner (2007) includes analyzing formulaic sequences within the newly designed framework for extended genre analysis because a link between genre and formulaic language use was found by Hüttner. Also in this study, pupils' usage of a certain set of formulaic sequences will be analyzed in order to gain further insights into the new VWA genre that aims at practicing academic writing skills.

Before conducting the empirical study, the phenomenon of formulaic language will be delineated. First of all, the confusing existence of various definitions and terms will be addressed in order to come up with a suitable definition for this study. Secondly, this

section will discuss methods of how formulaic sequences can be detected within a given corpus. The third section will provide a review of crucial findings about formulaic language and academic writing. On the one hand, studies dealing with professional and non-professional writers will be discussed and on the other hand findings about differences between native speakers and non-native speakers of English on various levels of proficiency in academic writing will be described. Finally, the last part will focus on two different studies providing lists of formulaic sequences or multi-word expressions.

4.1 Terminology: finding a definition

Wray (2002: 9) lists more than 50 different terms all describing the phenomenon of rather fixed set of words in language usage. Even though these terms share some common features, the exact concepts they describe often differ and using them as synonyms would be misleading. Therefore, various expressions will be considered in this section in order to outline the main differences between those labels not only to create awareness for a need of a clear definition of a term but also to decide which will be the most appropriate for purpose of this thesis.

A very special type of formulaic language is known by the term “idiom”. Idioms can be defined as “a group of words whose meaning is different from the meanings of the individual words” (Oxford University Press 2016). Within this category, Biber et al. (1999: 988) distinguish between phrasal verbs/phrasal-prepositional verbs and longer expressions. Both types of idioms cannot be understood by translating their parts but both can usually be substituted by one word meaning approximately the same. For instance, *crop up* means ‘occur’ or *kick the bucket* can be replaced by the single word die. Idioms are not only a very small set of phrases (Wray 2002: 13) but Biber et al. (1999: 989) additionally claim that the most stereotypical idioms are sometimes used in fiction, while in other registers their usage is very unusual. The infrequent use of idioms in spoken and written texts among various genres can be regarded as a major reason why other forms of formulaic language have been of greater interest for research.

A prominent phenomenon that is widely analyzed within the study of formulaic language are lexical bundles. While idioms are rather fixed expressions that cannot be understood via the meaning of the individual words, lexical bundles are “bundles of words that show a statistical tendency to co-occur” (Biber et al. 1999: 989). Therefore, Biber et al. (1999: 989) describe lexical bundles as “extended collocations” as collocations also show a higher statistical co-occurrence than can be anticipated by chance. Moreover, lexical bundles are usually not fixed and very often, they do not even constitute a structurally complete phrase.

According to Biber et al. (1999: 990) a lexical bundle is “a recurring sequence of three or more words”. Examples are: *in the case of the, there was no significant and it should be noted that*. Frequency is the main method by which lexical bundles are identified. Since the advent of corpus analysis, which facilitates studying large samples of spoken and written texts, researchers have been interested in identifying lexical bundles in given sets of corpora, studying the occurrence of lexical bundles in academic discourse (Cortes 2004) as well as the structure and the specific function of these bundles (Biber, Conrad & Cortes 2004; Hyland 2008a). The only criteria by which those bundles are identified within texts is frequency and this can be regarded a reason why even more terms for similar phenomena arose because further defining features of formulaic sequences have been identified except from this tendency of co-occurrence described in this section.

A very comprehensive and popular term adopted by many researchers has been introduced by Wray (2002). Wray (2002: 9) proposes the term “formulaic sequence” as this can be regarded a neutral term after a comprehensive analysis of lots of labels that have been employed so far. Formulaic sequence can be defined as follows (Wray 2002: 9):

a sequence, continuous or discontinuous, of words or other elements, which is, or appears to be, prefabricated: that is, stored and retrieved whole from memory at the time of use, rather than being subject to generation or analysis by the language grammar.

Wray’s (2002: 9) intention is to come up not only with an unbiased term but also with a very inclusive concept in order to simplify the comparison of different linguistic units identified as formulaic by other researchers. Even though holistic storage is a crucial characteristic within this definition, Wray (2002: 10) argues that also sequences detected by frequency-measures alone are embraced. Therefore, lexical bundles as well as idioms can be regarded as being also included in this label.

Despite the comprehensiveness of Wray’s (2002) term, a more concrete type of formulaic language will be studied in this paper. Henceforth, the term “formulaic sequence” will only be used for outlining how such sequences can be identified within corpora, what general findings in first and second language acquisition are available and what insights have been gained from studying formulaic sequences within the academic genres, especially in connection with a comparison of NS and NNS as well as professionals and non-professionals. The terms ‘formulaic expression’ and ‘academic formula’ will be used for the lexical units investigated in the course of this paper as the Academic Formulas List will be the main point of reference (Simpson-Vlach & Ellis 2010). Simpson-Vlach and Ellis (2010) use the terms formulaic sequences and formulaic expressions interchangeably.

However, as the definition by Wray (2002) comprises more than the list of formulas identified by Simpson-Vlach and Ellis (2010), only the latter will be used for the empirical study within this thesis. While lexical bundles are determined by the frequency of occurrence, formulaic expressions are those chunks of words that are not only the most frequent sequences of words in a corpus but also those displaying a certain cohesiveness and “teaching worth” (Simpson-Vlach & Ellis 2010: 490). The methodology applied by Simpson-Vlach and Ellis (2010) will be described in further detail in a later section.

4.2 Identification of formulaic sequences

After offering an insight into crucial terms and definitions describing different aspects and variants of multi-word units, an interesting question is how these formulaic sequences can be identified in spoken and written texts. Therefore, the following section will consider two methods in particular, namely intuition and frequency. Each approach has its individual advantages and disadvantages which has led to a combination of these approaches or also adaptations to establish more reliable measures for identification. Phonological coherence will not be included in this description as it mainly focuses on spoken texts, which will not be part of the empirical study.

A native speaker’s intuition is one possible way of identifying formulaic sequences. The most central advantage of this particular method is that even sequences very infrequently used can be recognized (Foster 2001: 81). However, the system involves limitations that have to be overcome in order to be regarded as valid. Wray (2009: 39) even describes intuition as “the [probably] most troublesome” method a researcher can choose. Similarly, Read and Nation (2004: 29) point towards the major drawback of intuition by stating that “the intuition of an individual investigator is dubious from a modern ‘scientific’ perspective”.

Intuition is proving troublesome because of the subjectivity and personal constraints involved in this process. Therefore, researchers have suggested actions to improve its scientific worth. Foster (2001: 82) points out that raters should be experienced in the field of applied linguistics, should recognize what is expected from them and finally they should have at their disposal a comprehensive knowledge of language teaching and with that of non-native varieties of English. Experience with varieties of English is important for the analysis of NNSs’ texts in particular as they have been found to come up with their own formulaic sequences. Additionally, more than one person’s intuitive opinion is also perceived beneficial. For instance, Foster (2001: 83) only regards phrases as formulaic if they have been identified by five out of seven informants. The integration of a greater number of judgments has also been suggested by other researchers (Read & Nation 2004:

29). Wray and Namba (2003) develop a list of eleven criteria in order to enhance reliability of classification of word strings by intuition as formulaic or not.

A further central drawback that cannot easily be overcome is the fact that only a small data set can be analyzed by intuition. Thus, in corpus analysis a prominent method is frequency of occurrence, which is the second method described in this section. A particular frequency threshold is the main criterion by which a string of words is considered formulaic or not. For instance, Biber et al. (1999: 990) set a minimum occurrence of 10 times per million words for four-word sequences in order to be defined a recurrent lexical bundle. Furthermore, as the sequence should not be an idiosyncrasy of an individual person, the sequences have to occur among at least five different texts in the register. The frequency threshold is not fixed but each researcher needs to set a minimum rate appropriate for their corpus size. The arbitrariness of the frequency threshold as well as frequency alone are central drawbacks described by Wray (2002: 27). Intuition demonstrates, that some sequences identified as formulaic by frequency do not seem relevant at all and other items classified as formulaic by intuition are neglected because they do not occur frequently enough in a given corpus. As frequency alone has drawbacks too, Simpson-Vlach and Ellis (2010), for example, created a new method integrating frequency, mutual information score and teaching worth which will be described in greater detail in section 4.4.4.

What can be seen from this overview of methods of identification is that the perfect way for detecting formulaic sequences has not been found so far. Therefore, researchers have tried to adapt the individual approaches or even to combine them. For instance, Foster (2001) exploits the opinion of seven experts in order to gain reliable results while Wray and Namba (2003) developed a diagnostic procedure in order to validate a researcher's intuition. Simpson-Vlach and Ellis (2010) used a mixed approach and combine frequency with teaching worth of formulaic sequences.

4.3 The importance of formulaic language

Formulaic language has become a widely researched field and the reason why such sequences are of great interest are manifold. The omnipresence of formulaic language indicates the relevance of this phenomenon not only for native speakers themselves but more importantly, for non-native speakers. Employing formulaic sequences has been proven to be essential as these prefabricated phrases facilitate language processing and appear to be crucial for being regarded a proficient user of a language.

Formulaic language is seen as ubiquitous within the use of language (Schmitt & Carter 2004: 1). Formulaic sequences can not only be identified in various languages but they

are found to perform even the same functions within discourse (Nattinger & DeCarrico 1992: 66). The claim that formulaic language is a prevalent feature in language is supported by different studies. For instance, Erman and Warren (2000: 37) show that 58.6% of the spoken texts and 52.3% of the written texts analyzed in their study consist of formulaic sequences. Foster (2001: 85), using different criteria for the analysis, finds out that NS unplanned language production consists of 32.29% formulaic sequences. Biber et al. (1999: 993f) focus on the frequency of formulaic sequences in conversation and academic prose and present that about 30% formulaic sequences are used in conversation and 21% in academic prose. Even though the results always depend on the parameters chosen by the researchers, the existence of formulaic language is supported by the studies that have been carried out so far and thereby, the importance of the phenomenon is maintained.

A possible explanation why formulaic sequences are a common feature of spoken and written language could be their positive effect on language processing. The processing advantage has first been identified by Pawley and Syder (1983) who discuss the puzzle of natural selection and nativelike fluency. Pawley and Syder (1983: 191) argue that

[...] there is a puzzle here in that human capacities for encoding novel speech in advance or while speaking appear to be severely limited, yet speakers commonly produce fluent multi-clause utterances which exceed these limits.

Pawley and Syder (1983: 191) believe that the answer to the puzzle of nativelike fluency described in the quote is simply that humans are able to speak fluently because of their repertoire of “sentence stems’ which are ‘institutionalized’ or ‘lexicalized’”. The grammatical form and also the lexical content of such a lexicalized sentence stem is said to be rather fixed. This knowledge of a set of lexicalized sentence stems suggests that language is not produced word by word by applying grammatical rules only.

A similar view is supported by Sinclair (1991) who introduces “the open-choice principle” as well as the “idiom principle”. While the former is about a speaker’s free choices within text production the only restriction being grammaticality, the latter deals with the speaker’s knowledge of a high amount of “semi-preconstructed phrases” which are not created word by word but are seem to be stored and retrieved holistically. Pawley and Syder (1983: 218) conclude that formulaic sequences have positive effects not only for the speaker because of their easier retrieval but also for the hearer because of the familiarity of those language chunks. The same advantages are stated by Nattinger and DeCarrico (1992: 32), who thereby support the teaching worth of formulaic sequences to NNS.

Processing advantages of formulaic sequences have been widely researched and maintained by showing, for instance, that NSs and NNSs respond quicker to formulaic sequences than non-formulaic sequences and also with fewer errors (Jiang & Nekrasova 2007). Underwood, Schmitt and Galpin (2004: 161-162), conducting an eye-movement test to find out more about the processing of formulaic sequences, show that terminal words occurring within formulaic sequences are processed more quickly than the identical word within a non-formulaic phrase. However, the widely accepted view of a holistic storage of formulaic sequences cannot be proven by investigating the speed of processing (Siyanova-Chaturia 2015). Therefore, Siyanov-Chaturia (2015: 297) summarizes that “[...] experimental paradigms that test activation, prominence, or modifiability of the individual components within a larger unit [...]” should be applied in order to analyze the concept of holistic storage more thoroughly.

Researchers do not only reveal that formulaic sequences are identifiable in spoken and written texts to a great extent, but also that this prevalence could be due to the positive impact of formulaic sequences on language production and comprehension. Even though support has been found that formulaic sequences are processed faster than non-formulaic sequences, these findings do not prove a holistic storage of those sequences.

4.4 Research on formulaic sequences in academic discourse

Formulaic sequences are central components of fluent language production and therefore, are crucial for acquiring a language (Hyland 2008a). Furthermore, the automatic usage of a specific set of multi-word expressions appears to signal group membership. Hyland (2008a: 5) claims that “the absence of such clusters might reveal the lack of fluency of a novice or newcomer to that community”. In the field of genre analysis described in chapter 3, a similar claim has been made by Bhatia (1993: 29) who argues that discourse communities demonstrate consistency in the organization of the overall message within a specific genre. Research on formulaic sequences does not only reveal the impact on fluent language production but also the prevalence of certain multi-word expressions in academic discourse and more specifically in certain genres. Furthermore, English as a second language has also been an interesting viewpoint in connection to proficient usage of formulaic sequences. While some researchers have mainly been interested in detecting variations among genres, others analyze differences among native speakers’ and language learners’ usage of formulaic sequences. Additionally, the level of expertise is also of great interest when studying formulaic sequences. In general, researchers have not only successfully detected formulaic sequences but also have analyzed their structure and function, which has led to important findings and pedagogical implications as well.

4.4.1 Lexical bundles: frequency, structure and function

A common feature shared by most studies reviewed in this section is the focus on lexical bundles (Hyland 2008a; Hyland 2008b; Cortes 2004; Biber, Conrad & Cortes 2004; Kashiha & Chan 2015; Ädel & Erman 2012; Chen & Baker 2010; Dontcheva-Navratilova 2012; Wei & Lei 2011; Pérez-Llantada 2014). The studies rely on the definition provided by Biber et al. (1999: 989f) who describe lexical bundles as “extended collocations” which are “recurrent expressions, regardless of their idiomaticity, and regardless of their structural status”. Thus, co-occurrence in natural discourse is a central feature of lexical bundles. However, the key criteria considered for the production of a list of lexical bundles differ as the actual frequency cut off is perceived as arbitrary (Hyland 2008a: 8). As already described in this thesis, the cut-off frequency for identifying four-word bundles has been set at ten times per million words by Biber et al. (1999: 990), while Hyland (2008a: 8) sets the minimum frequency at 20 times per million words. In order to avoid individual speaker or writer idiosyncrasies, a second criterion has been introduced that simply requires bundles to be spread across a certain number of different texts (Biber et al. 1999: 992f). No concrete number has been defined here as well and therefore, the studies employ different parameters according to the size of their corpus.

The studies under consideration are not only interested in identifying lexical bundles in spoken or written texts but also focus on the structural characteristics of these bundles. The structural classification of bundles is often based on the typology presented in the Longman Grammar of Spoken and Written English that offers fourteen different categories for bundles in conversation and twelve in academic prose (Biber et al. 1999). Nevertheless, as I am not interested in discussing structural characteristics of formulaic expression used in the VWAs in this thesis, the concept will be neglected when describing the main findings of the studies below.

Interesting findings can be gained by considering the functions these lexical bundles fulfill within context. Hyland (2008a; 2008b) differentiates between research-oriented, text-oriented and participant-oriented bundles. Research-oriented bundles are used to structure the activities and experiences of the real world. For instance, research-oriented bundles are: *in the present study*, *a wide range of*, *the structure of the* (Hyland 2008a: 13). Text-oriented bundles assist in ordering a text and thereby, a text’s meaning as a message or an argument. Thus, *on the other hand*, *in addition to* belong the text-oriented bundles and signal additions or contrasts between elements of a text (Hyland 2008a: 14). Finally, participant-oriented bundles are concerned with the attitude and evaluation of the writer (stance features) and also the reader of a text. Typical stance features are: *may be due*

to, it is possible that. Examples of bundles addressing the reader are the following: *as can be seen, it should be noted that* (Hyland 2008a: 14).

A more frequently employed classification of discourse functions is established by Biber, Conrad and Cortes (2004: 384) who distinguish between stance expressions, discourse organizers and referential expressions.

Stance bundles express attitudes or assessments of certainty that frame some other proposition. Discourse organizers reflect relationships between prior and coming discourse. Referential bundles make direct reference to physical or abstract entities, or to the textual context itself, either to identify the entity or to single out some particular attribute of the entity as especially important (Biber, Conrad & Cortes 2004: 384).

I don't know if, I don't think so but also I want you to, I'm not going to belong to the category of stance bundles (Biber, Conrad & Cortes 2004: 389). Examples of discourse organizing bundles are phrases such as *want to talk about* for introducing a topic or *on the other hand* and *as well as* for direct comparisons and contrasts (Biber, Conrad & Cortes 2004: 392-393). Referential bundles, for example, can specify attributes of head nouns (*a little bit of wealth, the size of the ethnological community*) or refer to places or times and also locations (*as shown in Figure, the end of the*) Furthermore, as has been indicated in the examples above, the three categories subsume several subcategories for a more precise differentiation of their specific functions in context. An overview of the categories and subcategories are shown in Figure 8, an exact description of each category can be found in Biber, Conrad and Cortes (2004: 389- 396).

- I. Stance expressions**
 - A. Epistemic stance
 - B. Attitudinal/modality stance
 - B1) desire
 - B2) obligation/directive
 - B3) intention/prediction
 - B4) ability
- II. Discourse organizers**
 - A. Topic introduction/focus
 - B. Topic elaboration/clarification
- III. Referential expressions**
 - A. Identification/focus
 - B. Imprecision
 - C. Specification of attributes
 - C1) Quantity specification
 - C2) Tangible framing attributes
 - C3) Intangible framing attributes
 - D. Time/place/text reference
 - D1) Place reference
 - D2) Time reference
 - D3) Text deixis
 - D4) Multi-functional reference

Figure 8: Overview functional classification of lexical bundles (Biber, Conrad & Cortes 2004: 384-388)

Simpson-Vlach and Ellis (2010: 503), compiling the Academic Formulas List (AFL), employ the classification system introduced by Biber, Conrad & Cortes (2004) described in this section. A major reason why a functional classification seems important for Simpson-Vlach and Ellis (2010: 497) is its usefulness for pedagogic purposes, especially for teachers compiling new materials on the basis of the Academic Formulas List. The importance of Biber, Conrad and Cortes' (2004) functional categorization for the AFL is the main reason why this thesis will work with this model rather than the classification by Hyland (2008a). However, Hyland's (2008a) classification offers an alternative to Biber, Conrad and Cortes' (2004) and has been employed by researchers other than Hyland (2008a) himself as will be shown in the next section.

4.4.2 Overview results: Register and disciplinary variation regarding lexical bundles

Studies interested in register and disciplinary variations have been conducted by Biber, Conrad and Cortes (2004) and Hyland (2008a). This section will summarize the main outcomes on the frequency of lexical bundles and the discourse functions the bundles perform.

Biber, Conrad and Cortes (2004: 375-376) analyze two different university registers, namely classroom teaching and textbooks. Moreover, the findings are compared to results of a previous study which provides insights gained from analyzing conversation and academic prose. The findings of the study by Biber, Conrad and Cortes (2004) seem to suggest that different academic registers employ a rather varied number of lexical bundles and that the discourse functions expressed show register differences as well.

Hyland (2008a: 8) is interested in disciplinary variations and therefore, analyzes research articles, PhD dissertations and MA theses from the following four disciplines: electrical engineering, biology, business studies and applied linguistics. The frequency analysis of different bundles reveals that electrical engineering texts comprise most bundles (213). Only 144 different bundles could be detected in business studies and a similar number has been found in applied linguistics with 141 different bundles. Slightly less different bundles (131) have been identified in biology. Many bundles found in the engineering corpus do not overlap with lexical bundles identified in any of the other fields. Thus, Hyland (2008a: 9) points out the greater dependence on pre-fabricated strings in engineering than found in other disciplines. Another finding is the great divergence of the lexical bundles used within the four disciplines investigated, as overlaps of lexical bundles in different disciplines are rather infrequent. Furthermore, a differing pattern of argumentation between social and pure sciences becomes apparent by the employment of specific lexical bundles. For example, social sciences are mostly concerned with connecting aspects of arguments, whereas pure sciences predominantly point towards graphs and findings and the presence of an author is rather avoided (Hyland 2008a: 13). The functional differences are analyzed as well and classified according to Hyland's (2008a) model presented in the previous section. Electrical engineering employs the highest amount of research-oriented bundles amounting to 49.4% followed by 40.4% reliance on text-oriented bundles and only 9.2% participant oriented bundles. Biology shows similar tendencies also preferring research-oriented bundles with 48.1% and text-oriented bundles with 43.4% while neglecting participant-oriented bundles which make up 8.4% only. The lexical bundles employed by the two disciplines belonging to the social sciences perform different functions. Applied linguistics mostly uses text-oriented bundles amounting to 49.5% of all bundles. Additionally, 31.2% referential bundles could be identified in the corpus and a total of 18.6% of participant-oriented bundles. Similarly, business texts rely on text-oriented bundles as well accounting for 48.4% followed by research-oriented bundles occurring in 36% of all instances. The smallest amount of bundles used belongs once more to the category of participant-oriented with 16.6% (Hyland 2008a: 14). The greater

amount of text-oriented bundles in social sciences indicates towards a more discursive and evaluative pattern for presenting an argument (Hyland 2008a: 16).

Both studies could demonstrate the existence of register and also discipline differences in the overall frequency of lexical bundles and also the functional types preferred by each register or discipline.

4.4.3 Overview results: Proficiency level and language influence on use of lexical bundles

The studies summarized in this section are interested in variations of lexical bundle usage among different levels of proficiency. Except from Cortes (2004) and Hyland (2008a; 2008b), who investigated variations of lexical bundles between experts and non-experts without focusing on the first language of the writers, the remaining studies analyze second language speakers of English and focus on the diverse frequencies of occurrence of lexical bundles as well as the functions those bundles perform.

Studies focusing primarily on similarities and differences of lexical bundles in student and expert writing have been conducted by Cortes (2004) and Hyland (2008b). Both authors are also interested in analyzing variations among different academic disciplines (Cortes 2004; Hyland 2008a). Cortes (2004: 403f) investigates published articles of two research fields, namely history and biology and detects 54 and 109 target bundles, respectively, which will be the basis for the comparison between the expert and the student writings which are selected from three different university levels. In the history texts, lexical bundles are either classified as referential bundles or text organizing bundles and a small set of bundles do not belong to any of the three functions introduced by Biber, Conrad and Cortes (2004). No stance bundles occur in the history texts of academic writers (Cortes 2004: 406). In biology texts, all three types of functions are present and a category "other bundles in biology" is added which mostly contains subject-specific bundles (Cortes 2004: 408). The comparison of published and student writings reveals that in history and also biology the target bundles are rarely employed by the students (Cortes 2004: 414-415). Moreover, the lexical bundles students use, do not always express the functions characteristically related to them in published academic writing in history and biology (Cortes 2004: 42). Similarly, Hyland (2008b: 50), comparing research articles, PhD theses and master's texts, identified a great difference of the lexical bundle usage by experts and students. For instance, many of those lexical bundles research articles contain frequently, are rarely or never used by the students. As lists of recurrent multi-word expression have been compiled for all three genres, a comparison of the most frequently used bundles could be

conducted. Thus, Hyland (2008b: 50) observes that less experienced writers use more lexical bundles than expert writers and the structural and functional patterns also vary across the three genres compared. A possible explanation for this variation is not only the level of proficiency but also the differing purposes these three text types have (Hyland 2008b: 59). However, a limitation of Hyland's (2008b) study is the fact that even though the student corpus contains texts mainly written by non-native speakers of English, the focus has only been on varying levels of academic proficiency and the language background has been neglected.

Wei and Lei (2011) are interested in lexical bundles used by advanced Chinese EFL learners within their doctoral dissertations and in contrast, by professional native speakers in published journal articles. The methodology employed by Wei and Lei (2011: 159) is based on the functional classification introduced by Hyland (2008b: 49). In accordance with Hyland's results (2008b), Wei and Lei (2011: 159) identify more lexical bundles in the student corpus (154) than in the control corpus (87) and also more varied bundles as only 22 bundles could be detected in both corpora. The functional categorization of the bundles is in agreement with Hyland's (2008b) results again, as the advanced non-native speakers employ a comparable number of research-oriented bundles and also a high number of text-oriented bundles also found in experts' writings, while participant-oriented bundles were more dominant in academic articles (Wei & Lei 2011: 163). The underrepresentation of specific types of bundles is not regarded as a sign of deficiencies in the production of a foreign language or mastering the conventions of academic writing but rather the inability of second language learners to acquire all types of bundles naturally (Wei & Lei 2010: 165).

Chen and Baker (2010) investigate not only the structural and functional similarities and differences in students' and experts' use of lexical bundles but also compare texts written by L1 and L2 speakers of English. A contrast to Hyland's (2008b) and Wei's and Lei's (2011) findings can be seen as the results by Chen and Baker (2010: 43) indicate that the more proficient a writer, the higher the number of lexical bundles used and the greater the range of those bundles. However, Wei and Lei (2011) in accordance with Hyland (2008) found out rather the opposite, as this studies show a higher number of lexical bundles used by students not expert writers. The contrasting findings could be due to different research parameters such as neglecting context-dependent bundles or corpus size (Chen & Baker 2010: 43). A comparison of functional types of the bundles reveals that non-native and native student essays are similar to each other as both groups of writers mostly employ discourse organizing bundles, 42% and 39% respectively. Referential bundles

comprise 41% in non-native student texts and 37% in native student texts. Stance bundles are the smallest group with 16% in non-native student texts and a higher amount in native student texts is found with 24%. In contrast to the similar tendencies of functions in student texts, expert texts contain mostly referential expressions making up 60% of the bundles used. 21% discourse organizers and 19% stance bundles were identified in expert writings. (Chen & Baker 2010: 38).

A study concentrating on differences among native speakers and non-native speakers has been conducted by Ädel and Erman (2012). The two groups of university students share 22% of the bundles used in the texts analyzed. However, the mutual lexical bundles often differ in the frequency of their usage. The functional classification reveals that the use of referential expressions is rather similar in both groups and is generally the most frequently used function. Non-native speakers' texts contain 45% referential expressions while native speakers' texts consist of 47% referential bundles. Non-native speakers' usage of stance bundles and discourse organizers is rather balanced with 28% and 27%, respectively. However, the native speakers seem to rely on stance bundles to a greater extent than non-native speakers as 31% bundles are stance bundles while only 22% are discourse organizers (Ädel & Ermann 2012: 90). Ädel and Erman (2012: 90) claim that the higher reliance on a more varied set of stance bundles by native speakers has been spotted before and is confirmed by this study as well. Chen and Baker (2010: 43) and Ädel and Erman (2012: 90) reveal that the overall pattern of lexical bundle usage by both groups of students is rather similar. Nevertheless, native speakers employ not only a higher number of lexical bundles but also more varied ones. Interestingly, Ädel and Erman's (2012: 90) distribution of discourse functions reveals a clear preference of referential expression in both groups, while discourse organizers and stance bundles are rather balanced. In contrast, Chen and Baker's study shows that the use of discourse organizers is slightly more prevalent in the two student corpora than referential expressions, whereas stance bundles are employed significantly less frequently.

A somewhat different approach has been chosen by Dontcheva-Navratilova (2012), who examines the use of 30 four-word target bundles within 15 Master's degree theses written by Czech students in linguistics, methodology and cultural studies and literature. The target bundles are identified to exemplify the most frequent bundles detected in academic discourse within the field of humanities (Dontcheva-Navratilova 2012: 44). Only a limited repertoire of bundles is used by the students and many bundles are employed rather infrequently. A difference between the disciplines is visible as in the literature theses eleven bundles do not occur at all, whereas only 7 bundles are not present in linguistics

theses. Furthermore, linguistics theses not only employ most target bundles but additionally, show the highest rate of lexical bundles. The difference is assumed to be due to the higher awareness of language of those students studying linguistics (Dontcheva-Navratilova 2012: 45). Students of the three disciplines linguistics (41%), methodology (53%) and literature (58%) mostly used referential bundles followed by discourse organizing bundles (34% - 27% - 20%) and finally, attitudinal bundles (25% - 20% - 12%). Dontcheva-Navratilova (2012: 55) claims that the high number of referential bundles can be seen as a sign of immature writing as discipline-specific discourse conventions have not been acquired yet as other researchers found out that social sciences usually rely on discourse organizers mostly. However, Ädel and Erman (2012), studying texts written in linguistics only, also show students extensive use of referential bundles. Nevertheless, discourse organizers are the least frequently used bundles in the corpora which is a contrast between Dontcheva-Navratilova's (2012) and Ädel and Erman's (2012) findings.

Pérez-Llantada (2014) conducted an interesting study, as the focus has been on convergent and divergent use of lexical bundles not only between native speakers and non-native speakers of English but also between research articles written in English by L1 English speakers and L2 English speakers but also research articles written in Spanish by L1 Spanish speakers. Overall, the findings of the study suggest that the use of lexical bundles by L1 Spanish speakers writing research articles in English (L2) is perceived a "hybrid" formulaic profile, not fully nativelike" (Pérez-Llantada 2014: 89). Even though the use of certain bundles signifies an advanced level of proficiency (overlap of bundles between L2 English speakers and L1 English speakers), an L1 transfer is still observable which becomes overt by the comparison of the lexical bundles identified in research articles written by L2 English speakers (L1 Spanish) and the usage of lexical bundles in Spanish research articles by L1 Spanish speakers (Pérez-Llantada 2014: 87-88). Differences among native English speakers and non-native English speakers could be identified when analyzing the discourse function of the lexical bundles used. The most striking finding is that those bundles only identified in research articles written by English native speakers predominantly belong to the category of stance bundles. In contrast, stance bundles are rarely used by L2 English writers as well as L1 Spanish writers (Pérez-Llantada 2014: 91-92). Generally, the study demonstrates that L1 transfer is observable within the use of formulaic sequences as well and therefore, explicit teaching of lexical bundles is promoted (Pérez-Llantada 2014: 93).

Most studies investigating formulaic sequences provide pedagogical implications gained through their results. Overall, there seems to be a general consensus among researchers

about the importance of enhancing explicit formulaic language teaching as non-native speakers and native speakers are no experts in the field of academia. Cortes (2004:417) claims that exposure to lexical bundles employed in published academic articles does not necessarily result in actual learning of those bundles by students. Furthermore, a long process for acquiring lexical bundles frequently found in academic texts as well as their specific discourse functions and structures is assumed (Dontcheva-Navratilova 2012: 55). Therefore, teaching formulaic sequences explicitly to native and non-native students is suggested (Cortes 2004; Chen & Baker 2010; Dontcheva-Navratilova 2012; Wei & Lei 2011). For instance, formulaic sequences could be actively stressed by instructors in order to help students notice the sequences. Additionally, the functions performed by the formulaic sequences need to be addressed as well (Wei & Lei 2011: 165). Dontcheva-Navratilova (2012: 56) presents tasks that can be integrated in classes focusing on English for academic purposes such as creative usage in written performance or controlled practice.

4.4.4 The creation of pedagogically useful lists of formulaic sequences in academic discourse

The value of formulaic sequences in academic writing and therefore, also for teaching academic writing is acknowledged by many researchers as can be seen in the previous section. The advantages for students of any academic field of mastering the most prominent formulaic sequences characteristic of this particular discipline constitutes a main reason for the creation of lists of the most frequently occurring formulaic sequences in academic discourse. The Academic Formulas List (AFL) will be described in some detail (Simpson-Vlach & Ellis 2010) as the list is also employed by Liu (2012), whose list of multi-word constructions will also be presented.

Simpson-Vlach and Ellis (2010: 487) created An Academic Formulas List (AFL) with the objective to generate a list, not only including the most frequently used formulaic sequences, named lexical bundles, but more importantly covering sequences which are pedagogically useful. A corpus of spoken and written academic discourse representing different academic disciplines was chosen for the analysis of formulaic expressions. In contrast to the studies described before which only identify 4-word bundles, sequences of 3, 4 and 5 words were included in this study. Furthermore, the sequences detected in the target corpus were compared to a corpus representing non-academic speech and writing in order to find shared sequences which then were excluded from the AFL as only sequences exclusive to academic discourse are of interest (Simpson-Vlach & Ellis 2010: 491-492). A second statistic calculated is the mutual information (MI) score which is a

measure of cohesiveness, assessing “the degree to which the words in a phrase occur together more frequently than would be expected by chance” (Simpson-Vlach & Ellis 2010: 493). Finally, 20 experienced EAP instructors were asked to judge a set of 108 formulas according to what extent they perceive a sequence as being a formulaic expression, showing a cohesive meaning or function and being worth teaching as a good representative of a formulaic sequence. Thereby, a new classification method of academic formulas called formula teaching worth (FTW) score is introduced, which “is a prediction of how instructors would judge [the sequences’] teaching worth” (Simpson-Vlach & Ellis 2010: 496). The judgment of the raters led to multiple regression analysis which predicted the instructors’ opinions whether a phrase is worth teaching or not and thereby, the following standardized solution has been detected: “teaching worth= β 0.56 MI + β =0.31 frequency” (Simpson-Vlach & Ellis 2010: 496). Furthermore, Simpson-Vlach & Ellis (2010: 496) describe that:

(...) these beta coefficients, derived from the 108 formula subset for which we had obtained instructor ratings, could then be used over the population of academic formulas which they represented to estimate from the two corpus statistics available for all formulas-the combined measure of MI and frequency.

“[The] FTW score weighs MI and frequency in the same way that EAP instructors did when judging a sample of these items for teaching worth” (Simpson-Vlach & Ellis 2010: 508). In total three lists have been compiled, a Core AFL list, a list of the first 200 sequences of the spoken AFL and equally the first 200 formulas of the written AFL. Finally, the formulas are categorized according to the discourse function they perform using the framework presented by Biber, Conrad and Cortes (2004) for pedagogical purposes (Simpson-Vlach & Ellis 2010: 497). The Core AFL, the written AFL as well as the spoken AFL will be shown in the appendix and listed according to the discourse functions the formulas fulfill.

A second list of 228 most frequently used formulaic sequences has been compiled by Liu (2012). Liu (2012: 28) uses the academic writing sub-corpora in COCA and BNC and thereby, covers a wide range of academic disciplines. The analysis does not focus on lexical bundles only but covers idioms and phrasal/prepositional verbs as well. A major difference to the methodology applied by Simpson-Vlach and Ellis (2010) is the employment of an extensive set of target bundles such as the lexical bundles’ list by Biber et al. (1999), the AFL by Simpson-Vlach and Ellis (2010) and idioms and phrasal verbs found in The Cambridge International Dictionary of Idioms (phrasal verbs) and The Oxford Idioms Dictionary (phrasal verbs dictionary) (Liu 2012: 29). The target bundles are searched for in the two corpora and a total number of 228 sequences are listed. The rather low number can be explained by the fact that related multi-word constructions are summarized in a single entry in the list. For instance, *a number of* and *the number of* are

presented together in the following manner: *a/the number of*. Two different lists are compiled, with the sequences grouped together either by frequency or semantic function, which enhances user-friendliness (Liu 2012: 30). The analysis of the American and the British corpus allowed comparisons between American and British English. The identification of multi-word constructs shows that certain sequences mainly occur in the American corpus while others are predominantly found in the British corpus. For example, *as long as* seems to be preferred in American English, whereas *as far as* is more prevalent in British English (Liu 2012: 32).

Both lists have the main purpose of being useful resources for teaching in an EAP context. While Simpson-Vlach and Ellis (2010) are interested in formulaic expressions not simply identified by frequency but by calculating the expressions' FTW, Liu (2012) detects lexical bundles, idioms, phrasal verbs and the formulaic expressions found by Simpson-Vlach and Ellis (2010). Liu (2012) analyses written academic texts only, whereas, Simpson-Vlach and Ellis (2010) are interested in spoken and written academic discourse.

5. Design of the empirical study

The VWA is a new genre within secondary education and even though a lot of general information is provided by the Austrian ministry of education, a more detailed analysis using genre analysis provides more detailed insights about the genre. In this thesis, a first step towards an extended genre analysis is aimed for by investigating the structure of the introduction and conclusion, two obligatory sections of the VWA, as well as lexical features such as the use of formulaic expressions within the whole VWA. In this chapter, the data as well as the methodology employed for analyzing the VWAs will be described. As already outlined in the introduction section, the aim of my thesis is to answer the following research questions:

1. What are similarities and differences between the models summarizing the move structures of research article introductions and conclusions and the official guidelines for VWA introductions and conclusions recommended by the ministry of education?
2. Do pupils realize all the moves suggested for the introduction and conclusion? If not, which ones seem to be regarded as core moves and which ones as optional moves by the pupils?
3. Do pupils' introductions/conclusions include additional moves not suggested in the guidelines provided by the ministry of education?
4. Do pupils use formulaic expressions characteristically found in academic writing?

5.1 Data

The data collection for this diploma thesis has been strongly supported by the Stadtschulrat für Wien, who established contact with two school principals. Both principals work at Viennese grammar schools which participate in the school project “Vienna Bilingual Schooling”. Overall, this means that the lessons in most subjects are held in both German and English by German speaking teachers but also English native speakers. Pupils attending the bilingual classes have special requirements for the SRDP, for instance the pupils have to write the VWA in English or if the VWA is written in German or a different foreign language than English, they have to take an exam in “Englisch als Erstsprache”. Furthermore, the oral exams are held in German and English. Therefore, both schools could provide me with the data needed for this thesis.

Generally, not a lot of information is available about the pupils who wrote the VWAs. Table 1 presents an overview of the mother tongue of the 20 pupils, at least the mother tongue declared when enrolling in the bilingual class. As shown in Table 1, half of the pupils are native speakers of German and only four pupils are English native speakers. Interestingly, four pupils do not have a single mother tongue but share German and English or Nepali and English. Only two pupils have a different mother tongue than German or English. The mother tongue will be taken into account in this study when analyzing formulaic sequence usage, however no significant findings can be revealed as the number of participants is too small and only limited knowledge is available about pupils’ knowledge of various languages.

Table 1: Overview mother tongue of pupils

Mother tongue	Number of pupils
German	10
English	4
German & English	3
French	1
Arabic	1
Nepali & English	1

In accordance with the Stadtschulrat für Wien and my supervising professor Dr. Dalton-Puffer a data set of 20 VWAs has been agreed on. Therefore, each school principal provided me with ten VWAs written in English in the school year 2015/2016. In school B, I was allowed to select the VWAs personally. However, as school A randomly selected the VWAs from a single class, the only criterion applied when choosing the VWAs in school B has also been to take all ten VWAs randomly from one class. The VWAs are uploaded by pupils all over Austria onto the VWA database via the website <https://genehmigung.ahs->

vwa.at/Account/Login?ReturnUrl=%2f. The school principals can access the VWAs uploaded within their school and also download the VWAs. Therefore, I received all 20 VWAs in PDF format which I could transform into text files by using the program AntFileConverter (2015) for the analysis of formulaic sequences.

As the VWAs have been selected randomly, a variety of topics from different disciplines such as psychology, biology or history are included in the data set. Even though previous studies confirmed disciplinary variations especially on the level of individual steps (c.f. 3.4.3 and 3.4.4), my thesis will not focus on such variations as the data set is too small for a comparison of individual disciplines. The list of all VWAs analyzed in this diploma thesis is shown in Table 2.

Table 2: List of VWAs

Code	Title ¹
VWA 1	Analysing Sleep and Dream with special focus on their interpretation and importance for humans
VWA 2	The therapeutic value of a vegetarian diet for people suffering from diseases caused by civilization – with a focus on Type 2 diabetes mellitus
VWA 3	Study on how organisms are able to survive the hostile environment of the deep sea
VWA 4	The Viking colonisation of Greenland with special consideration of socio-economic factors of influence.
VWA 5	What Motivates Suicide Bombers? Historical and Psychological Analysis.
VWA 6	Amphibia and the evolution of behavior: <i>allobates femoralis</i> – a model for behavioral studies
VWA 7	Internet usage of teenagers in Nepal for educational purposes An analysis of Internet usage behaviour of 15-17-year-old students at selected schools in Kathmandu
VWA 8	Tactical Training in Youth Football
VWA 9	Domestication of the Wolf What happened to the wolves after they approached humans?
VWA 10	Medical Tourism: Case Study Costa Rica
VWA 11	A Comparison of Personal Accounts of Women in Canada and Austria during the Second World War

¹ The original spelling of the titles has been maintained as well as the original capitalization

VWA 12	An Analysis and Comparison of War Photography from World Wars I and II
VWA 13	The Battle of Carrhae Background and Consequences
VWA 14	Multichannel Marketing to Millennials
VWA 15	How did hip-hop influence the life of African-Americans in the USA?
VWA 16	Psyche of a Pedophile: The case Marc Dutroux
VWA 17	The Battle of Stalingrad
VWA 18	Schizophrenia in the Movie "A Beautiful Mind"
VWA 19	The Physics of the Manhattan Project: The Construction of the First Atomic Bombs
VWA 20	Analgesic Effects of Opioids in the Human Body

5.2 Method of analysis

In order to answer the four research questions mentioned before, different methods have to be employed. Therefore, this chapter will outline how different data-types, including the VWAs have been analyzed for acquiring relevant information.

First of all, a comparison between the guidelines for writing an introduction and conclusion of a VWA and the empirically derived models of research article introductions and conclusions is made. Thereby, the individual moves and steps identified by Swales (2004) and Yang and Allison (2003) which “[enable] the categorization of chunks of text in terms of their particular communicative intentions” (Yang & Allison 2003: 370) are compared to the questions raised by the ministry of education which pupils should answer in the introduction or conclusion. The identification of similarities and differences between the moves and questions provided by the ministry of education could provide insights in the probably different communicative purpose of RA introductions and conclusions and VWA introductions and conclusions.

Secondly, as the ministry of education provides a set of questions pupils should answer in their VWA, the 20 VWAs have been examined in order to find out whether pupils actually respond to these questions. The ministerial guidelines offer a set of sample phrases in German for some questions which demonstrate how pupils can express their answers.

Therefore, a focus on linguistic features seemed beneficial for identifying individual questions at first. For instance, Question 5: “How is your VWA structured?” has been mostly detected by language features describing structures such as “the first chapter”, “First,...Secondly,... “. Each answer identified has been read in detail as well in order to check whether the communicative intention is actually fulfilled. Furthermore, each introduction/conclusion has been read thoroughly as well, in order to identify answers to the questions that could not be found with linguistic clues only. Thus, each phrase/sentence has been compared to the questions in order to compare the communicative intention and thereby, find actual answers to the questions raised. Even though a number of questions could be easily detected, especially Question 1: What exactly is your topic? was challenging as a clear distinction to Question 3: What is the aim of your VWA? was not straightforward in every VWA. Therefore, a decision had to be made how to classify those examples. A text was classified as fulfilling question 3, if a specific aim could be identified when reading the passage or if the text contained linguistic clues such as words that mean “aim”.

Thirdly, as not all passages within the VWAs analyzed could be assigned to any of the questions suggested within the guidelines, a move-structure analysis of these passages has been attempted. For this purpose, the models presented in chapter 3, particularly Swales’ (1990; 2004) and Yang and Allison’s (2003) and Hüttner’s (2007) model, have been considered for identifying further moves and steps within pupils’ papers. However, some introductions/conclusions did not follow any of the structures typical for introductions of academic texts but contained information usually found in the main chapter. The structure of these texts has not been analyzed thoroughly. These introductions/conclusions were disregarded as they do not belong to any of the two parts analyzed in this thesis because the communicative purpose of an introduction/conclusion section has not been fulfilled.

The fourth research question is concerned with the use of formulaic expressions. As an important link between formulaic language and genre (in particular academic genres such as research articles or dissertations) has been identified not only by Hüttner (2007) in her extended genre analysis but also by various other researchers summarized in chapter 4, this thesis intends to offer some information about pupils’ employment of formulaic expressions as well. However, the small data set of introductions and conclusions led to the decision to analyze the whole VWAs in order to identify formulaic expressions particularly common in academic writing. A different approach to Hüttner’s (2007) extended genre analysis has been chosen in this thesis. Furthermore, lists containing

formulaic sequences specifically used in academic writing were not available when Hüttner (2007) conducted her extended genre analysis. This thesis will base the analysis of formulaic expressions on the academic formula list by Simpson-Vlach and Ellis (2010) described in chapter 4 for identifying and analyzing formulaic expressions in the data set. In order to answer the fourth question, all 20 VWAs have been transformed into individual text files. Furthermore, all direct quotations have been removed, as only the language produced by the pupils themselves should be analyzed. Then, the three different lists of formulaic expressions (Core AFL, Written AFL and Spoken AFL) were transferred into excel tables in order to count the overall instances of occurrences of each sequence as well as the occurrences within the individual VWAs. Finally, the program AntConc (2014) was employed to detect the formulaic expressions within the files. The concordance tool has been useful for finding the formulaic phrases. The whole expressions taken from the AFL list can be entered and the tool counts the overall number of occurrences within the whole corpus. Additionally, the tool indicates in which file the phrase appears and therefore, the appearances per VWA could be counted manually. Obviously, a different method would be necessary for larger data sets as manual analysis would be too inefficient. However, the method could effectively be employed in my thesis. Furthermore, the concordance tool shows the phrases in context, which is beneficial if a certain formulaic expression from the AFL is not found in the text by searching the whole phrase as pupils might have altered some expressions and thus, only parts of a phrase can be searched for. For instance, only few hits have been found for the phrase *on the one hand*, however, searching for *one hand* led to the finding that some pupils wrote the phrase *on one hand* instead.

6. Results of the empirical study

6.1 Analysis of the guidelines

The lack of information on how the six guiding questions presented in section 2.5 were compiled is a limitation for the analysis as the reasons why exactly these six questions have been chosen are not accessible. In contrast, Swales (2004) and Yang and Allison (2003) identified their moves based on actual empirical evidence. Nevertheless, similarities and of course differences between the models could be identified and will be presented in the following section.

6.1.1 Introductions

The comparison of Swales' (2004) CARS model to the guiding questions offered by the ministry of education reveals a number of differences but also some similarities.

The most striking difference is the overall organization of the two models. Swales (2004) provides three main moves that are realized by individual steps which are either obligatory or optional. Furthermore, even though cycling of moves is possible, the overall M1-M2-M3 structure is usually followed as has been described in chapter 3. In contrast, the ministry of education provides a set of questions that should be answered in the introduction. Moreover, it is announced that the order of the questions within the introduction is not important. Therefore, while Swales (2004) maintains the order of starting with a general description of the topic (territory) before going into further detail with the present work, the ministry of education provides an order pupils do not have to follow.

The comparison of individual steps and the guiding questions reveals some overlaps, however in most instances they differ to a great extent. Move 1 and move 2 of the CARS model do not correspond to the guiding questions. Especially, move 2 “establishing a niche” is not suggested by the ministry of education. Move 1 “establishing a territory via topic generalizations of increasing specificity” does not equate with the question “What exactly is your topic?” because Swales’ (2004) model indicates that researchers should start with a more general statement about the topic and then get more specific. The guiding question, though, suggests a clear statement about the topic without this transition from general to specific. Most overlaps can be identified in move 3 “presenting the present work”. Step 1 “announcing present research purposively” which is an obligatory step according to Swales (2004) is found within the guidelines in question 3 “What is the aim of your VWA?”. Furthermore, the optional step “summarizing methods” fulfills the same communicative function as question 4 “How will you proceed to achieve the aim?”. A final overlap is detected between step 7 “outlining the structure of the paper” and question 5 “How will you structure your VWA?”. Two questions that do not correspond to any of the steps of the CARS model are “Which literature will you base your VWA on?” and “What will you not do?”. However, the former question has been part of the earlier CARS model to some extent in move 1 step 3 “reviewing items of previous research” but as a number of researchers found literature reviews in any part of the RA it has been decided to neglect this step as it does not belong to any move within the model. The latter question has not been part of any CARS model. Steps that are not considered in the guiding questions are “presenting research questions or hypotheses”, “definitional clarifications”, “announcing principal outcomes” and “stating value of present research”.

6.1.2 Conclusions

Similar to the results presented above, the conclusion section shows some overlaps. However, the model presented by Yang and Allison (2003) and the ministry of education are generally rather dissimilar.

The overall structure varies in the same manner as the CARS model and the guidelines for the introduction section. While Yang and Allison (2003) follow the move and step structure initiated by Swales, the ministry of education provides guiding questions. Yang and Allison (2003) empirically derived three moves with three steps for move 2 and two steps for move 3. The ministry guidelines are divided into three parts, each part consisting of at least two questions. Point two and three both have a main question such as “Did any unexpected difficulties arise?” and sub questions. For instance, “If yes, which ones” or “Could you solve them?” have to be addressed in the conclusion as well.

A comparison of the individual moves and steps to the guiding questions demonstrates further differences but also some similarities. No equivalent question can be found in the guidelines by the ministry of education to move 2 “evaluating the study” and all steps expressing this function. Step 2 “indicating limitations” is neither the same as the question “What will you not do?” within the introduction section as the communicative function is to narrow down the scope of the VWA while step 2 is concerned with general drawbacks of the study such as the size of a corpus. Furthermore, step 2 clearly is evaluative while the guiding question of the introduction section is neutral. In the questions for the conclusion sections, no limitations are addressed but only difficulties that arose during the process of writing the VWA as well as whether a solution could be found. Again, the communicative function differs from step 2 of move 2 of Yang and Allison’s (2003) model. The question aims at addressing complications without an evaluation but by providing the solution. In contrast, “indicating limitations” is clearly fulfilling an evaluative function as limitations have negative effects on the results of a study to some extent. A move that can be found in both models is move 1 “summarizing the study” that corresponds with question one “What are the main results of the VWA?”. However, the guidelines directly address the reader by including the question “What should readers take with them?” while move 1 is focusing on the study only. Step1 of move 3 “recommending further research” resembles the question “Did you encounter open questions which could be analyzed in further studies?” If yes, which ones”. Both encourage to offer suggestions for further research, however step 1 seems broader than the question raised in the guidelines as concrete questions need to be addressed. Step 2 “drawing pedagogic implications” is not shared by the guiding questions and demonstrates a further difference between the two frameworks.

The comparison of the CARS model (Swales 2004) for RA introductions and Yang and Allison's (2003) model for RA conclusions to the guiding questions suggested by the ministry of education for the introduction and conclusion section of VWAs reveal more differences than similarities. The overall structure of the models differ as the models for RA introductions and conclusions are classified as moves and steps and suggest a linear organization of these moves. In contrast, the guidelines recommend questions pupils should address without a further division such as the move-step structure and also the exact order of the questions can be chosen by the pupils. Interestingly, move 2 in introductions and conclusions of RA does not have a corresponding question within the guidelines. Therefore, a clear difference is detected within the particular communicative function the move has. However, some steps and in the conclusion also a move is shared by both models. For instance, "summarizing methods" and "outlining the structure of the paper" can be found in the questions for VWA introductions as well. Furthermore, both models propose a step that involves recommending further research even though clear research questions that could be addressed in future studies are proposed for VWA conclusions. In the discussion section, possible reasons for the similarities and differences detected will be focused on by taking into account the theoretical background offered in chapter 3.

6.2 Results of move structure analysis of students' VWA introductions

The move structure of VWA introductions has been analyzed in a two-step manner as already presented in the previous chapter describing the method of analysis. Therefore, the following section will first outline the results of analyzing the occurrences of the six guiding questions recommended by the ministry of education within the data set. Secondly, the analysis reveals further moves and steps employed by the pupils and out of the identified additional moves and steps the most significant findings will be presented.

On the whole, two VWAs did not contain an introduction, even though the first section has been labelled *Introduction* by all pupils. The two introductions do not fulfill the communicative purpose of a typical introduction section in academic writing. Therefore, these two papers have not been considered for further analysis. Furthermore, one VWA does not include any of the questions suggested by the ministry of education and has been neglected as well. However, this particular introduction has been considered when analyzing additional moves and steps as the text seems to fulfill at least some structural requirements of an introduction section. Additionally, one VWA contains a whole introductory chapter with four sub-chapters. However, as questions suggested in the

guidelines could easily be detected, the VWA has been analyzed together with the remaining VWA introductions.

Analysis according to the official guidelines

Only 17 VWA introductions have been analyzed in greater detail and the overall results of the analysis of the six questions the introduction should answer according to the ministry of education are shown in Figure 9. As Figure 9 illustrates, all guiding questions are employed in at least six of the 17 VWA introductions analyzed.

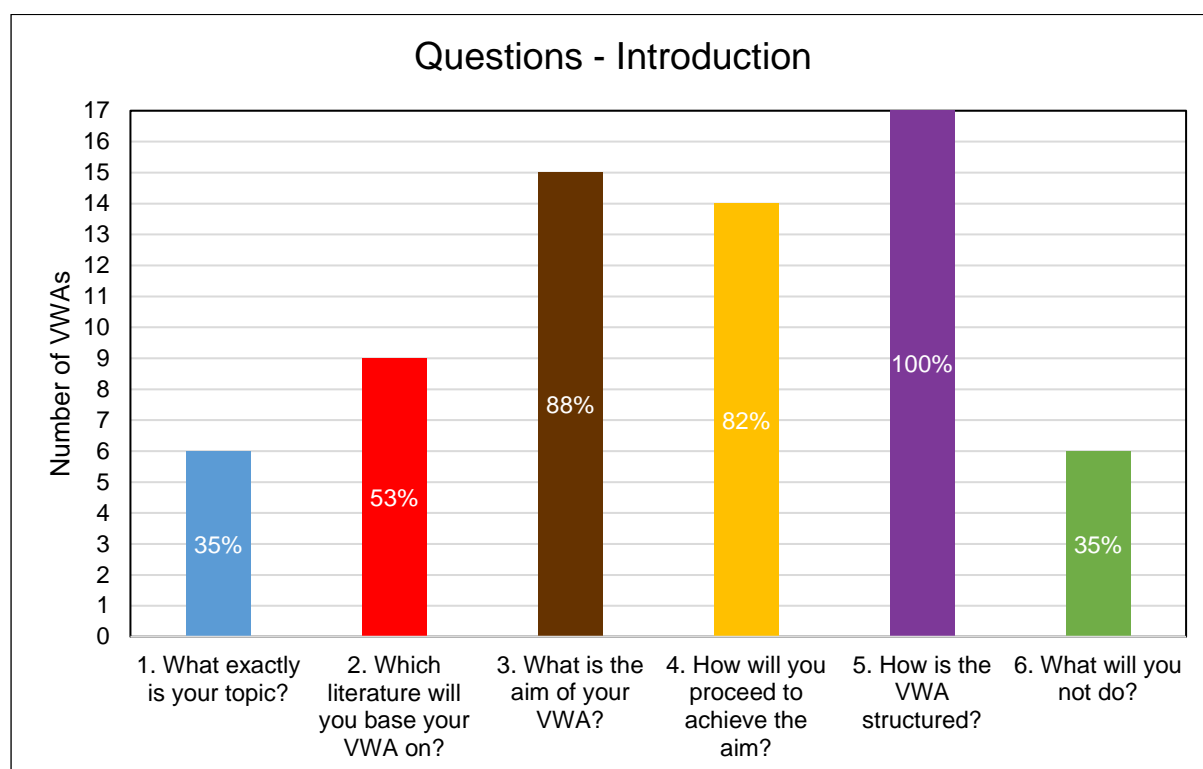


Figure 9: Overview of fulfillment of the six guiding questions

In more detail, question 1 and question 6 expressing the exact topic and what the pupil will not do in their paper, respectively, are realized in six VWA introductions. The only question answered by all pupils is question 5 which provides a response to how the VWA is structured. In 88% of the introductions, pupils express the aims of the paper followed by explaining the method that is used in order to achieve the aim which occurs in 82% of all VWAs. Information about the core literature of the VWA is only provided in 53% of the VWAs analyzed. As stated earlier in this thesis, distinguishing guiding question 1 and 3 in the actual student texts has proven to be a major challenge. However, a distinction has to be made and thus, statements in which clear aims or purposes could be identified are classified as question 3, even though the pupil might originally intended to answer question 1.

For example, the following sentences are taken from VWA 2:

- (1) This paper *will discuss the results of following a vegetarian diet on the health and wellbeing of people suffering from these diseases.*
- (2) The *aim of this paper is to comprehensively explain the mechanisms of not only diseases of civilization but also of a vegetarian diet and especially its effect on the wellbeing of diabetics.* Furthermore, I want to *outline and appropriately summarise the studies that have been conducted on this topic.*

The sentence (1) occurs in a separate paragraph while the final two sentences comprise a whole paragraph (2). All passages have been classified as question 3 “What is the aim of your VWA?” because clear goals are addressed in each sentence. The goals are marked in *italics*.

VWA 4 contains an interesting mixture of Q1 and Q3 as the following example shows:

- (3) This paper is about the Viking colonization of Greenland with a closer look on how the Norse were able to live and sustain there (Q1). It explains how they got there, how they lived and how they disappeared (Q2). However the work concentrates more on the socio-economic factors that influenced the settlement’s succeeding (Q1).

The first sentence is classified as “What exactly is your topic?” as the general topic, namely, Viking colonization is presented and furthermore an exact focus on how they were able to live and sustain there is communicated. In contrast, the second sentence clearly addresses an aim by using the verb *explain* followed by a set of clear questions. Finally, the last sentence is further narrowing down the topic and therefore, is categorized as question 1 again. In such a manner, all questions are distinguished and ascribed to either of the two different question types.

Table 3 provides an exact overview of the classification of each of the six questions within the VWAs analyzed. A question answered within the introduction of a VWA is marked with “Y” for “yes” and of course the opposite is indicated with an “N” for “no”.

Table 3: Overview questions answered within each VWA

Code VWA	Question classification						Q/VWA
	Q1	Q2	Q3	Q4	Q5	Q6	
VWA 1	N	Y	Y	Y	Y	Y	5
VWA 2	Y	Y	Y	Y	Y	Y	6
VWA 4	Y	Y	Y	Y	Y	N	5
VWA 5	N	Y	Y	N	Y	N	3
VWA 6	N	N	N	Y	Y	N	2
VWA 7	N	N	Y	N	Y	N	2
VWA 8	Y	Y	Y	Y	Y	Y	6
VWA 9	N	N	Y	Y	Y	N	3
VWA 10	N	Y	Y	Y	Y	N	4
VWA 11	Y	Y	Y	Y	Y	N	5
VWA 12	N	N	N	N	Y	N	1
VWA 13	N	Y	Y	Y	Y	N	4
VWA 14	N	N	Y	Y	Y	Y	4
VWA 15	N	N	Y	Y	Y	N	3
VWA 16	Y	N	Y	Y	Y	N	4
VWA 18	Y	Y	Y	Y	Y	Y	6
VWA 20	N	N	Y	Y	Y	Y	4
Overall	6	9	15	14	17	6	

Additionally, Figure 10 illustrates the total number of questions employed per VWA and complements Table 3 which shows which VWAs exactly answer how many of the six guiding questions.

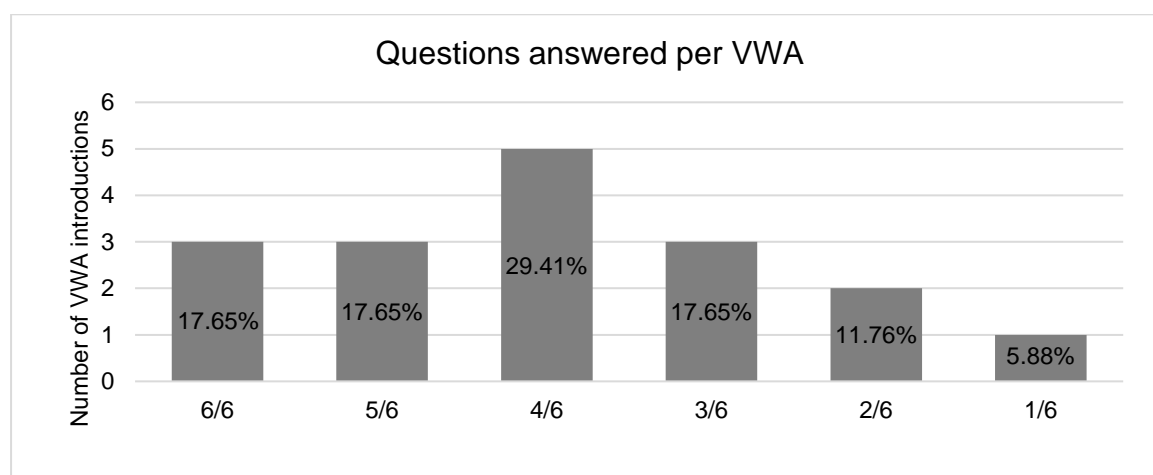


Figure 10: Number of questions answered per VWA

Overall, 64.71% of the introductions answer four or more of the questions suggested by the ministry of education and 82.35% of the introductions provide an answer to at least half of the questions raised. However, only three pupils (17.65%) answer all questions. In contrast, one introduction answers merely a single question. Furthermore, a closer

analysis of the actual occurrences of questions per VWA has been conducted and will be described in the following paragraph.

The five VWAs in which four questions have been answered, all are concerned with the question which aims a VWA has, which method is employed and how the work is structured. VWA 14 and VWA 20 do not state the topic explicitly nor refer to the main literature in the introduction. Moreover, VWA 10 and VWA 13 do not state the topic and do not describe what will not be dealt with in the VWA. The last VWA does not provide information about the main literature and what is not part of the VWA. Among the three VWAs answering five questions, VWA 4 and 11 do not state what will not be addressed in the VWA while one does not answer what exactly the topic is. The results of Figure 9 already imply that a description of the structure is the only question answered of the VWA that answers a single question only. Table 3 illustrates in detail which VWA addresses which question as well as the exact numbers of questions answered in each VWA.

Overall, the results show that four questions are addressed by more than 50% of the pupils. However, only a single question is fully obligatory with 100% fulfillment while those between 50% and 90% can be regarded core moves in the VWA introduction. Finally, question 1 and question 6 both seem to have an optional status as only 35% of pupils provided an answer to these questions. Further findings identified in the introduction section will be presented in the next section which shows additional moves and steps employed in the data set investigated.

Identification of additional moves and steps

In addition to the questions recommended by the ministry of education, a set of further moves and steps could be identified in the introductions analyzed. For this purpose, 18 VWAs were analyzed, excluding only those two VWAs whose introductions are clearly not an introduction but rather a main chapter of the paper. Furthermore, a new model containing moves, steps and also sub-steps is identified which also integrates the guiding questions promoted by the ministry of education.

Overall, four “new” moves could be detected in the introduction section which are shown in Figure 11.

Move 1: Establishing a territory
Move 2: Presenting the present work
Move 3: Expressing personal thoughts
Move 4: Expressing gratitude

Figure 11: Four moves of introduction section

Move 1 is called “establishing a territory” and move 2 “presenting the present work” in line with Swales’ (2004) first and third move. The move “expressing personal thoughts” is identified which has the identical communicative purpose of expressing subjective or personal thoughts in relation to the VWA. For instance, one pupil expresses personal hopes about the effect of the paper on the reader while other students describe their thoughts about a future outlook of the topic they have been concerned with. However, as the results of the analysis show that only a small number of students employ the move (11.11%) and the guiding questions do not encourage this move either, it can be regarded inappropriate for an introduction section of the VWA. Therefore, individual steps within move 3 are only listed in the appendix. Finally, move four “expressing gratitude” is explicitly discouraged by the ministry of education as “Danksagungen” should be mentioned in the foreword not the introduction. However, the move is found in one VWA introduction only.

The most striking finding of investigating additional moves and steps is the identification of move 1 “establishing a territory”. The communicative purpose of this move is to provide the reader with general information about the topic area that will be dealt with in the VWA. A total number of 15 VWA introductions employ this specific move within the initial paragraph of the introduction section. The results of the realization of move 1 within the initial paragraph of the VWA introductions are illustrated in Table 4.

Table 4: Overview Move 1: Establishing a territory

Move/steps/sub-steps	Total number	Percentage
MOVE 1: Establishing a territory	15	83.33%
Step 1: Teaser- rhetorical question	1	5.56%
Step 2: Claiming centrality	4	22.22%
Step 3: Background information	15	83.33%
Sub-step 1: Presenting topic specific information	7	38.89%
Sub-step 2: Generalizations	1	5.56%
Sub-step 3: Presenting general information related to topic	7	38.89%
Sub-step 4A: Indicating gap	2	11.11%
Sub-step 4B: Indicating gap, reason for gap and consequence	2	11.11%
Sub-step 4C: Indicating gap and how gap can be filled	3	16.67%
Step 4: Personal involvement with topic	1	5.56%
Step 5: Introduction and/or definition of terms	2	11.11%

The most prominent step is “background information” as all pupils employing move 1 also use this specific step. The step has been subdivided into further sub-steps which can be seen in Table 4. Sub-step 1 “presenting topic specific information” as well as sub-step 3

“presenting general information related to topic” are used in eight introductions comprising 44.44% overall. An example of topic specific information would be the following:

- (4) As modern research discovered, sleeping is in fact, nearly the equivalent to dreaming. During sleep, every single person experiences these extraordinary adventures in their own world always.²

The information presented is concerned with the main topic of the VWA which is “Analyzing sleep and dream with special focus on their interpretation and importance for humans”.

In contrast, the VWA about “What motivates suicide bombers? Historical and psychological analysis” employs sub-step 3 “presenting general information related to topic” as the information is dealing with the overall topic of suicide bombings rather than the specific focus on the motivations of suicide bombers as can be seen in the following example:

- (5) Suicide bombings have especially become one of the most frequently used strategies of terrorist organisations and continue to grow in popularity.

Finally, three sub-steps indicate a gap in a slightly different manner and therefore, have been listed as sub-steps 4A, 4B and 4C. Overall, seven VWAs (38.89%) indicate a gap in the initial part of the introductions. For example, the VWA about the “Domestication of the wolf- what happened to the wolves after they approached humans?” indicates a gap in the following statement (4A):

- (6) Although this is the case, not many people know where man’s best friend came from.

Furthermore, other VWAs do not only indicate a gap but also state reasons for the existence of the gap and consequences of this gap (4B). One example is the following:

- (7) Although amphibians are widely distributed in many parts of the world, the general public knows little about amphibian behavior. This is due to two main reasons. On one hand, amphibians are often small and inconspicuous and on the other hand research on this topic rarely surpasses the stage of research papers. As a consequence, there is only one comprehensive textbook on amphibians currently available, which combines areas ranging from morphology to behavior, metabolism and conservation.

² The examples presented in this section are excerpts from the data set investigated only. All examples are exact quotes from pupils’ writings and mistakes are neither corrected nor indicated with [sic.].

Finally, three VWAs immediately fill the gap which is demonstrated in the example presented below (4C):

- (8) But as treatment might not be affordable or accessible for all a more realizable way needs to be found. As diseases of civilization originate from lifestyle and diet, the idea of a treatment by nutrition arose.

The first sentence of the example indicates the gap while in the second sentence, the gap is already filled by claiming that nutrition could be another treatment for these diseases of civilization. A single VWA started the introduction by asking a rhetorical question.

Interestingly, exactly those two introductions showing a different pattern than the other introduction sections analyzed, such as having introductory chapters or the second one only employing move 1, include definitions of terms. Furthermore, the VWA which divides the introduction into chapters is the only VWA employing the step “personal involvement with topic”. Four introductions (22.22%) make centrality claims, such as:

- (9) In times like these where terrorism is considered to be a common act, it is important to understand the motives of those who commit such crimes.

The results show that most pupils (83.33%) attempt to set the scene for their paper before actually discussing their own work, which led to the integration of move 1 “establishing a territory” as a core move of VWA introductions which has been shown in greater detail in Table 4.

However, individual steps of move 1 could also be identified in a different position than the initial part of the introduction section. For instance, sub-step 1 “presenting topic specific information” is found in four VWAs in a middle or final position in the introduction section. Sub-step 3 “presenting general information related to topic” is also not exclusively found in a front passage but also in later paragraphs of the introduction in two VWAs. Both of these VWAs, however, already employ sub-step 1 “presenting topic specific information” for establishing a territory.

All but one introduction employ move 2 “presenting the present work”. I have decided to integrate the guiding questions presented before into move 2 as all questions provide information about the present paper (the VWA), which is the main communicative intention of move 2 “presenting the present work”. The results of the realization of the guiding questions have already been presented in this chapter and remain identical when integrating the guiding questions as steps and sub-steps within move 2 and therefore, will not be repeated. In addition to these questions, which became individual steps or sub-steps within move 2, a number of further sub-steps and steps has been identified in the data set. However, none of these additional sub-steps or steps reached more than

33.33%. No detailed presentation of each of the steps and sub-steps of move 2 will be provided in this section because of the great number of steps identified in a very low number of introductions. Therefore, Table 5 illustrates only those steps and sub-steps of move 2 that were identified in at least four introductions which accounts for more than 20% in the data set. The integrated guiding questions within move 2 are indicated in italics in Table 5. A comprehensive list of the steps and sub-steps can be seen in Appendix 3.

Table 5: Overview Move 2: Presenting the present work

Move/steps/sub-steps	Total number	Percentage
MOVE 2: Presenting the present work	17	94.44%
Step 1: State topic explicitly	6	33.33%
Sub-step 1: Justification for specific topic/focus	5	27.78%
Step 2: Indicate use of sources	12	66.67%
<i>Sub-step 1: Discuss sources used in VWA (explicit examples)</i>	9	50.00%
Sub-step 2: Indicate use of sources (no explicit examples)	6	33.33%
Step 3: Describe aims	15	83.33%
<i>Sub-step 1: Present aims of VWA</i>	15	83.33%
Sub-step 3: State personal reason for choosing aim	4	22.22%
Step 4: Describe method	14	77.78%
Step 5: Describe structure of paper	17	94.44%
Step 6: Describe what VWA will not include	6	33.33%
Sub-step 1: Provide explicit examples and explanation for choice	6	33.33%

Only three of the most common additional sub-steps identified will be presented briefly. A sub-step employed in six introductions (33.33%) is “indicate use of sources (no explicit examples)”. In comparison, nine introductions state the sources explicitly which is suggested by the guiding questions. The analysis reveals that three introductions include both sub-steps, namely “discussing sources explicitly” and “indicating use of sources (no explicit examples)”. Furthermore, an overlap between the sub-step “indicating use of sources (no explicit examples)” and the step “describing method” is identified in three VWA introductions and could not be fully differentiated. A second sub-step identified in five introductions is “justification for specific topic”. In four papers the sub-step directly followed the step “state topic explicitly” which is also a guiding question promoted by the ministry of education. Furthermore, the justification is based on the pupils’ interests in four out of five instances overall. A single introduction includes the sub-step “justification for specific topic” without having stated the topic explicitly but is based on personal interests too. A final sub-step identified in four different VWA introductions is “state personal reason for choosing aim”. All pupils claim to be “interested” or “fascinated” in connection to the aim

described before. Even though pupils' personal view is involved in both of the sub-steps aforementioned, the sub-steps have been integrated in move 2 because they seem more related to the main communicative intention of move 2 which is presenting the present work rather than their personal view. Interestingly, the expression of personal motives is discouraged by the ministry of education and therefore, should not be part of any move in an introduction section. Nevertheless, pupils' personal view is stated in both sub-steps described in this paragraph.

A final finding of the analysis of additional moves and steps is concerned with the announcement of gaps. Within move 1 as well as move 2 pupils indicate gaps in research or knowledge. Within the list of moves and steps identified in all VWA introductions, individual sub-steps have been listed within move 2 step 3 "define aims" and step 5 "structure of paper", depending on where exactly the gaps have been addressed. Even though the sub-steps occur within different moves or steps, all share that pupils do not aim at filling the gap within their VWA. Either, pupils only address the gap and then limit the scope of their aim or state the gap in order to justify gaps within individual chapters of their VWA. Possible reasons for this phenomenon will be addressed in the discussion section.

The results described in this section not only show how pupils integrate the six guiding questions but moreover, which further moves and thereby, individual steps are included (Figure 11; Table 4; Table 5). Move 2 can be regarded as obligatory as more than 90% of pupils employ the move. Move 1 (fulfilled in 83.33% of all introductions) is classified as core move, while move 3 and 4 should be neglected as they are not employed frequently and are discouraged by the ministry of education. With regard to the six guiding questions integrated as steps or sub-steps into move 2, only "describing structure of paper" seems to be regarded fully obligatory by the pupils. The step "describing method" and the sub-steps "presenting aim of VWA" and "discussing sources used in VWA" are core steps/sub-steps as they reach 77.78%, 83.33% and 50%, respectively³.

6.3 Results of the analysis of move structures in students' VWA conclusions

Generally, the identification of the guiding questions as well as additional moves employed by the pupils in the conclusion section is even more challenging than analyzing the introduction section. Predominantly because the overall structure of the conclusion section is more varied than of the introduction sections.

³ If a total number of 18 introductions is analyzed.

A conclusion section could be identified in 19 of the 20 VWAs analyzed. A single VWA does not include a concluding section at all and therefore, has to be disregarded. The same VWA had to be neglected when analyzing the introduction section as well due to the obvious lack of a shared communicative purpose with a traditional introduction section.

Analysis according to official guidelines

The three guiding questions recommended by the ministry of education are analyzed in 19 conclusion. Figure 12 illustrates the overall findings of the analysis conducted.

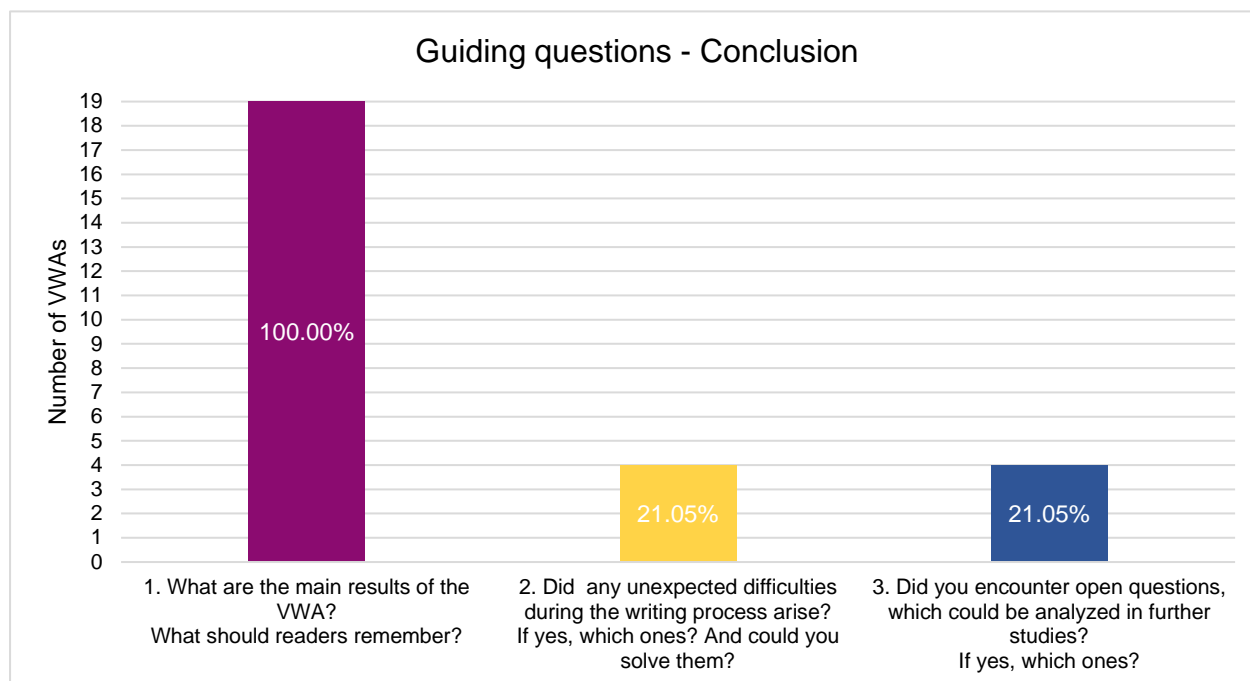


Figure 12: Overview answers to guiding questions

A summary of the VWA is identified in every conclusion. Most conclusions provide a rather comprehensive outline of major findings. The question whether difficulties arose is infrequently detected as only four conclusions mention complications. Furthermore, the question about difficulties also requires information about whether these complications could be solved. However, the students mainly focus on stating difficulties only. For example, the question is addressed in the following manner in VWA 8:

- (10) During the process of writing this research paper it was difficult to find books dealing with exactly the question “At what age can children understand specific tactical drills?”. But I found relevant brochures, scripts and online material. The problem was that the informations given in these sources differed a lot from each other.

The first issue described in the example, namely finding appropriate books, is solved. Nevertheless, a second problem encountered by the pupil is only stated but no further information is provided whether and how the difficulty has been dealt with. The final

question on open questions encountered that could be investigated in further research, is answered in 4 papers as well. However, the analysis of additional moves and steps provides further insights about suggestions of further research within the conclusion sections without explicitly stating open questions.

Analysis of additional moves and steps

The analysis of additional moves and steps within VWA conclusion sections shows that the three guiding questions presented above do not exemplify the general move structure of the conclusion section. A set of four moves is identified in the present study by taking into account the findings of Yang and Allison (2003) and Hüttner (2007). The four moves detected in the data set are shown in Figure 13 and will be presented in this section.

Move 1: Summarizing VWA
 Move 2: Evaluating VWA
 Move 3: Providing wider outlook/ deductions gained from VWA
 Move 4: Presenting personal view

Figure 13: Four moves of conclusion section

Move 1 “summarizing VWA” is employed in all 19 conclusions analyzed and therefore, can be considered fully obligatory. The communicative intention realized is simply to offer the reader a summary of main aspects discussed in the VWA. The overall results of the analysis of move 1 within the VWA conclusion sections are shown in Table 6.

Table 6: Overview findings Move 1: Summarizing VWA

Moves/steps/sub-steps	Total number	Percentage
MOVE 1: Summarizing VWA	19	100.00%
Step 1: Providing background information/ claiming centrality	2	10.53%
Step 2: Summarizing/restating aim	7	36.84%
Step 3: Providing outline for conclusion section	1	5.26%
Step 4: <i>Describing main results & what readers should remember</i>	19	100.00%
Sub-step 1: Give possible reason for result/ interpretation	1	5.26%
Sub-step 2: Underline results with quote	1	5.26%
Sub-step 3: Name source of main results	1	5.26%
Step 5: Summarizing methodology	2	10.53%
Step 6: Summarizing empirical study	1	5.26%
Step 7: Defining terms	1	5.26%

The most prominent step and also the only obligatory step is “describing main results & what reader should remember” which is also the answer to the first guiding question “What are the main results of your VWA? What should readers remember?”. Even though the step can be detected in all papers, the actual realization of the step differs. On the one hand, a difference can be detected in terms of where in the text the summary occurs, as it is not always situated in the first paragraph and on the other hand in the degree of detail and extensiveness of the summary. However, the addition “what should readers remember” offers a broad spectrum of subjective interpretation of what should be included in the summary. A second step worth mentioning is “summarizing or restating aim” that has been employed by seven pupils (36.84%). In six cases, the step was the first sentence of the conclusion section and therefore, is used as an introductory statement by these pupils before presenting a summary of main results. Further steps identified such as “summarizing empirical study” or “providing summary of background information” are detected in one conclusion and therefore, cannot even be classified as optional moves. All the results described in this paragraph are illustrated in Table 6.

A second move found in 13 conclusions is “evaluating VWA/results” which communicates limitations and difficulties of the work. The individual steps and sub-steps are shown in Table 7.

Table 7: Overview Move 2: Evaluating VWA/results

Move/steps/sub-steps	Total number	Percentage
MOVE 2: Evaluating VWA/results	13	68.42%
Step 1: Present limitations of results	7	36.84%
Sub-step 1: State value of results	1	5.26%
Step 2: Describe difficulties encountered and how they could be solved	4	21.05%
Step 3: Present limitations of topic/research/methodology	7	36.84%
Sub-step 1: how limitations could probably be overcome	2	10.53%
Sub-step 2: result/effect of limitation	2	10.53%

Hüttner (2007: 198) listed the step “emphasizing importance of results/topic/effect of results” within a similar move. However, only one paper claimed the value of its results but in response to the limitations of the results. Therefore, no such step has been listed within move 2 in this thesis. Seven conclusions state limitations of the results and the same number of pupils indicate limitations of the topic in general or within research or in the method. An example of stating limitations of the results presented in the VWA is the following:

- (11) But the monitored lifestyles of the participants of most studies confirming these interdependences also include an exercise or weight loss

component additional to the vegetarian diet which might influence the results.

As the VWA's main aim is to investigate the therapeutic value of a vegetarian diet on diseases of civilization, the statement above communicates to the reader that a limitation of the results must be considered due to the research findings investigated for the VWA.

In comparison, a limitation within the topic dealt with itself can be seen in this example:

- (12) Even though scientists seem to have a quite accurate idea of the mental disorder to date, the exact cause of schizophrenia is still unclear. No specific origin of this mental illness has been discovered (...).

In these sentences, the focus lies on the limitations within the topic of schizophrenia and its research area. However, the deficiencies in research influence the results presented in the VWA as well. Therefore, both steps are closely related to each other and in future study with a larger data set a closer analysis could be conducted in order to claim whether they should be summarized into a single step or not.

The guiding question “Did any unexpected difficulties during the writing process arise? If yes, which ones? And could you solve them?” has been integrated into move 2 as an evaluative function is served as well. The main findings about this step have already been addressed in an earlier passage.

Similar to move 2, move 3 “deductions from VWA/providing wider outlook” is employed in 13 VWA conclusions. The communicative intention is to relate the present work to the research field in general by either suggesting further research or stating open questions. Furthermore, the purpose of this move is also to express a connection between the topic of the VWA and its results to real world matters. The individual steps are shown in Table 8.

Table 8: Overview Move 3: Deductions from VWA/providing wider outlook

Move/steps/sub-steps	Total number	Percentage
MOVE 3: Deductions from VWA/ providing wider outlook	13	68.42%
Step 1: State open questions that can be analyzed	4	21.05%
Step 2: Recommend further research	4	21.05%
Sub-step 1: Justify importance/positive effect of further research	2	10.53%
Step 3: State influence of results/topic (for present day and/or future)	3	15.79%
Step 4: Suggesting actions in real life + expected positive effects	1	5.26%
Step 5: Refer to actions that already try to solve problems in real word (also addressed in VWA)	1	5.26%
Step 6: Hypothesis about future of topic	2	10.53%
Step 7: Present remaining problem and solution	1	5.26%

Step 1 “state open questions that can be analyzed” is based on the guiding questions presented before. However, the same number of pupils prefer recommending further research in a more general manner and therefore, a separate step has been included in this thesis. An example would be the following:

- (13) Future research may focus on a more elaborate research on deep sea organisms (...)

The example does not state a clear question that remained unanswered but states rather generally what could be researched further. Two papers directly recommend further research after presenting limitations, however main results are presented before in another VWA and no step preceded step 2 of move three in the final VWA as the recommendation has been stated initially. Generally step 1 and 2 of move 3 are positioned in the final part of the conclusion in three papers, in a rather final position in one VWA and right in the middle in three works. Only a single paper starts the conclusion section with step 2.

Step 3 to 7 are even less frequently identified in the VWAs analyzed as illustrated in Table 8. However, steps 3 to 5 share that they relate the findings of the VWA to the real world. For example, the following sentence represents step 3:

- (14) In the case of new settlements in our days, such as the development of entirely new city districts, almost identical factors influence its prosperity.

Furthermore, the next statements exemplify step 4 and 5, respectively:

- (15) Therefore, to promote the educational use of the Internet, an important step would be to establish an Internet connection and provide IT facilities in the schools. Teachers could then guide students and teach them how to carry out research on the Internet. Furthermore students who already have experience in using the Internet for educational purposes could benefit from an internet connection at their schools.
- (16) Thankfully, there are projects such as the Nepal Wireless Networking Project which are working to address these issues in remote areas.

Nevertheless, step 4 and 5 are only present in a single paper and therefore, cannot be considered core steps. Even though step 3 is used in 3 different papers, the overall percentage is only 15.79% which limits further observations about the step.

A final move that cannot be considered a core move is “providing personal reflection” with the communicative intention of offering personal impressions about different aspects of the VWA itself such as the topic, the results but also the research and writing process and its effects on the writer such as learning outcomes and subjective hypotheses about the topic itself or the results of the paper. A set of eight steps has been identified and is shown in Table 9.

Table 9: Overview Move 4: Providing personal reflection

Move/steps/sub-steps	Total number	Percentage
MOVE 4: Providing personal reflection	9	47.37%
Step 1: State reason for choosing topic	1	5.26%
Step 2: State personal opinion on topic	4	21.05%
Step 3: Reflect on insights gained/ learning outcome	5	26.32%
Step 4: Presenting prediction for future about topic	1	5.26%
Step 5: Reflecting on writing /research process	3	15.79%
Step 6: State personal implications/opinion/hypothesis about results/topic	1	5.26%
Step 7: Personal justification for specific source	1	5.26%

Among those steps, step 3 “reflecting on insights gained/learning outcome” is the most commonly used step as five VWAs (26.32%) employ this step. An example of step 3 is presented below:

- (17) In writing this paper I learnt that Multichannel Marketing is a challenge that all companies face today if they want to reach and keep their customers. They need to combine both online and offline channels, thus ensuring that their campaigns link the right products with the right consumers in the right way.

All these statements are rather extensive as whole paragraphs have been dedicated to express what has been learnt by writing the VWA. Four pupils state their personal opinion about the topic and three describe their thoughts about the writing or research process.

6.4 Results of analysis of formulaic expressions

The analysis of formulaic expressions based on the academic formulas list created by Simpson-Vlach and Ellis (2010) provides a number of interesting results that will be presented in this section.

The Written AFL and the Spoken AFL contain 200 expressions and the Core AFL lists 207 phrases. However, as the lists contain 3-4 word bundles a number of overlaps between phrases have been detected. For example, the expression *on the other hand* has the following four entries in the written AFL: *on the other hand*, *on the other hand the*, *the other hand* and *the other hand the*. Each phrase has been searched for in the corpus separately. Overlaps of parts of phrases within the corpus have been compared and therefore, each instance of a phrase has been only counted once. A phrase has been allocated to the biggest cluster if possible and each phrase has only been counted once in the corpus in order to avoid higher overall results due to overlaps.

The results of the analysis of the overall number of the target academic formulas identified in the VWAs is presented in three different lists are shown in Figure 14.

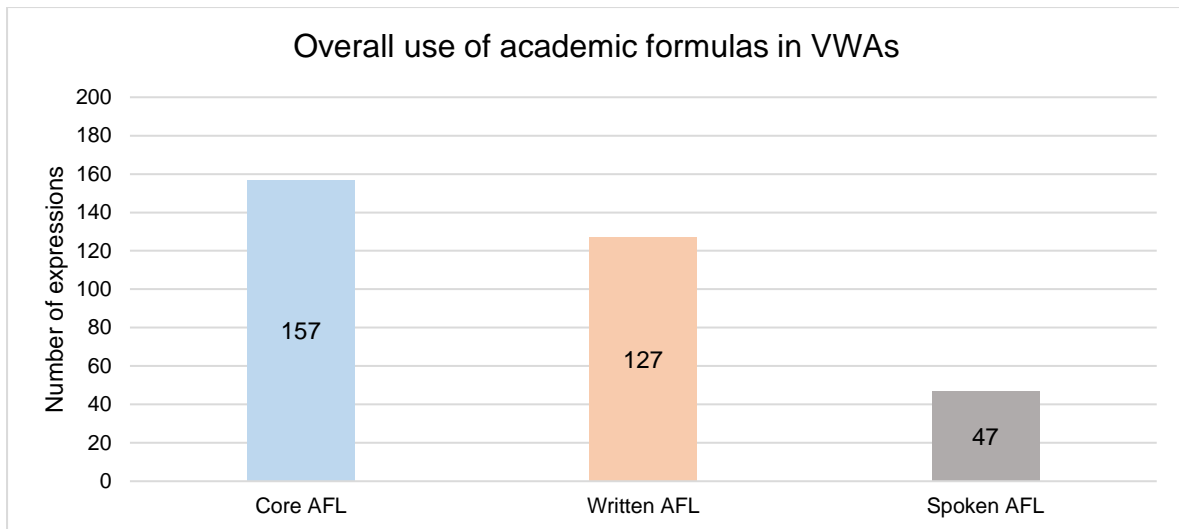


Figure 14: Overview use of target formulaic expressions

Out of the 207 formulas listed in the Core AFL a total amount of 157 has been employed by at least one pupil. Within the Written AFL and the Spoken AFL 127 and 47 expressions, respectively, have been detected. In other words, 75.85% of the core formulas and 63.5% of the written formulas are used at least once in the data set investigated. In contrast, only 23.5% of the formulas typical for spoken academic discourse are used in the VWAs.

The studies presented in chapter 4 all set a frequency cut-off for the identification of formulaic sequences in order to avoid individual writer idiosyncrasies, a factor that has not been considered in Figure 14. Even though the data set investigated is small, as a further step of analysis a frequency cut-off of 5 occurrences among different VWAs is set which means that an expression has to be used in at least 25% of the papers analyzed. Figure 15 presents the results after setting the frequency cut-off of 5 papers.

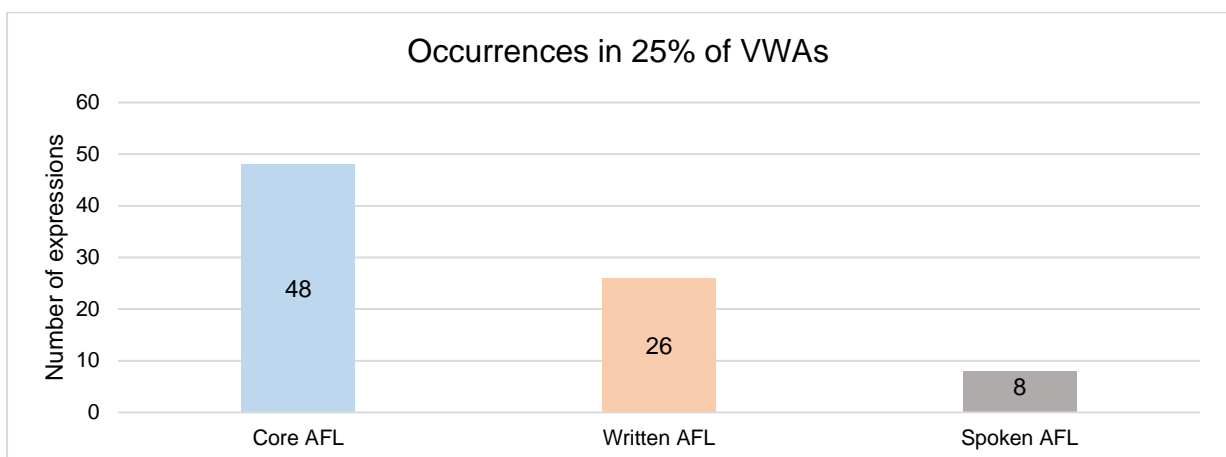


Figure 15: Overview of formulaic expressions used at least in 25% of the VWAs

48 expressions of the Core AFL are employed by at least 5 pupils and 26 of the Written AFL. The smallest number of target formulas has again been used from the Spoken AFL.

A total of 74 formulas more commonly used in academic writing than non-academic writing are identified in at least 25% of the VWAs. The most prominent expressions of each of the three lists are shown in Table 10 to Table 12.

Table 10: List of core formulas used by most VWAs

Core AFL	Overall distribution
due to the	17
as well as	17
in order to	15
part of the	14
the amount of	14
it can be	12
such as the	12

Table 11: List of written formulas used by most VWAs

Written AFL	Overall distribution
the most important	14
on the other hand	13
can also be	10
this means that	10
(there are) a number of	9
which can be	9

Table 12: List of spoken formulas used by most VWAs

Spoken AFL	Overall distribution
be able to	9
has to be	9
this is the	9
the end of the	8
the idea of	6
there was a	6
at the end of	5
look at the	5

The most common expressions of the Core AFL are *due to the* and *as well as* which are used in 17 of the 20 VWAs analyzed. 14 papers employ the expression *the most important* from the Written AFL and 13 pupils use the expression *on the other hand* in their VWA. Interestingly, the formula *on the one hand* is not listed in any of the three lists and when searching for the phrase in the corpus, only 2 papers have been found that employ the expression. However, when the formulaic expression *one hand* is analyzed, four pupils use *on one hand*. Finally, the overall distribution of expressions of the Spoken AFL list is much lower in comparison to the formulas of the Core AFL list and lower than those of the

Written AFL as can be seen in the Table 10-12. The three expressions *has to be*, *this is the*, and *be able to* shown in Table 12 are those found in nine different papers. In six papers, the formulas *the idea of* and *there was a* have been identified six times. The corresponding phrases *the end of the* and *at the end of* have been found in eight and five different papers, respectively and as mentioned before, the examples found in the VWAs never overlap but are new examples always. As only eight expressions of this list are above the frequency cut-off, only one phrase found in five different VWAs of course remains to be mentioned which is *look at the*.

A further aspect that can be analyzed is the classification of the formulas reaching the frequency cut-off according to the function the phrase should fulfill. Each expression listed in Simpson-Vlach and Ellis' (2010) has already been assigned to a function. Simpson-Vlach and Ellis (2010) employ the model introduced by Biber, Conrad and Cortes (2004) which groups expressions into three main function types already presented in chapter 4. The findings of all three lists have been summarized for this purpose and the results are illustrated in Figure 16.

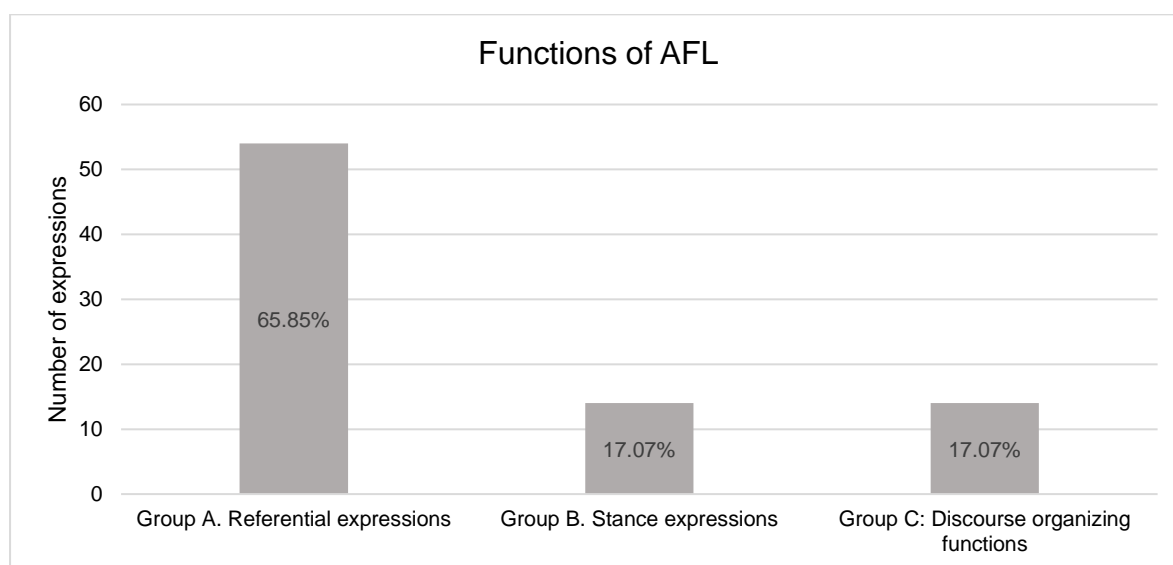


Figure 16: Overview functional classification of formulaic expressions

The first group, Group A: referential expressions, represents the highest number with 65.85%. Group B: stance expressions as well as Group C: discourse organizing sequences are both rather infrequently found with 17.07% only. A similar pattern is already detectable within the most prominent examples presented above in Table 10 to Table 12 as twelve of them belong to group A, and four each to group B and C.

Finally, as the data set is manageable, the employment of formulaic expressions in the VWAs is studied in greater detail. Figure 17 illustrates that at least 10-14 formulaic

expressions of the Core AFL are employed in each VWA. However, only two papers integrate at least 45 different formulaic expressions. Furthermore, no VWA has been identified which employs more than 54 differing core formulas. Seven pupils use 30 to 34 of the core formulas in their VWAs.

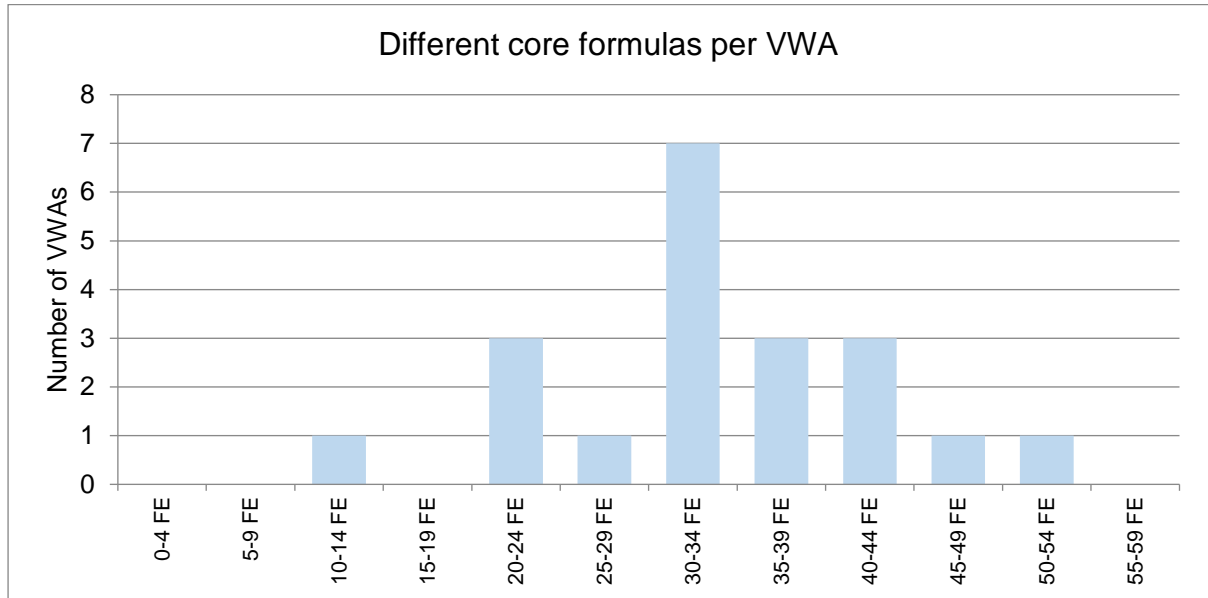


Figure 17: Overview of different core formulas per VWA

Figure 18 illustrates how many different formulas from the Written AFL have been employed per VWA.

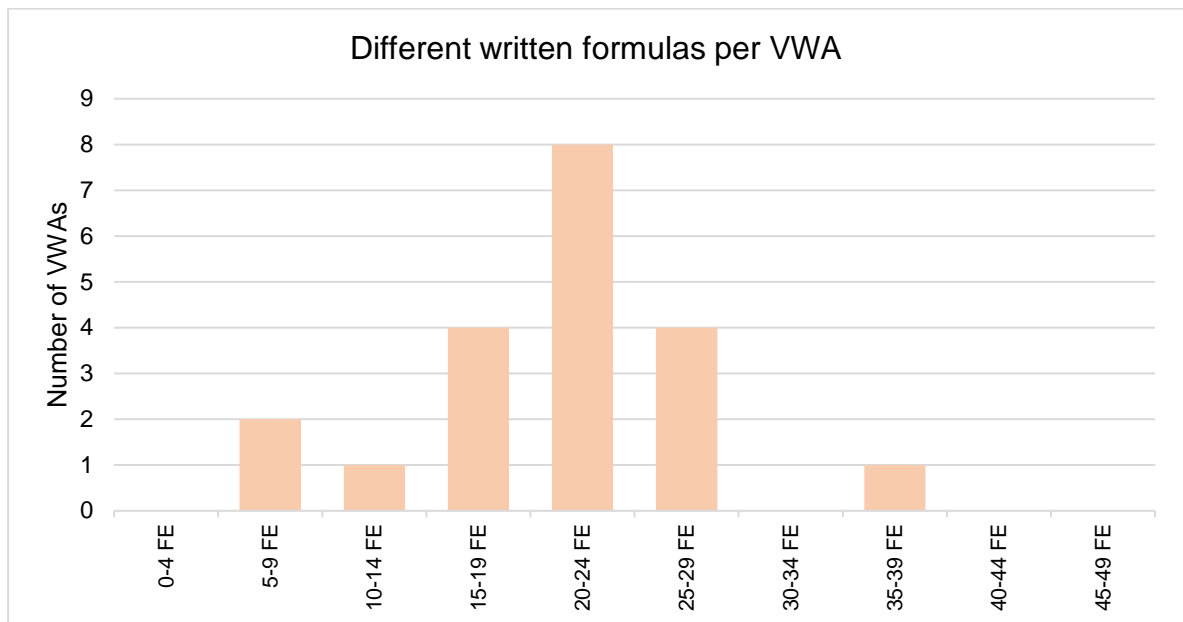


Figure 18: Overview of different written formulas per VWA

The analysis shows that overall less formulas from the Written AFL are employed within each VWA which of course can already be assumed by the results presented above that show that most formulas used belong to the Core AFL. Less than forty different

expressions from the Written AFL are employed within a single VWA investigated. Eight students use at least 20 different formulas. Only a single VWA has been found that includes more than 35 differing written formulas. All VWAs contain at least five formulas of the Written AFL.

Finally, the least commonly used expressions are those of the Spoken AFL. Figure 19 illustrates the use of spoken formulas in the data set.

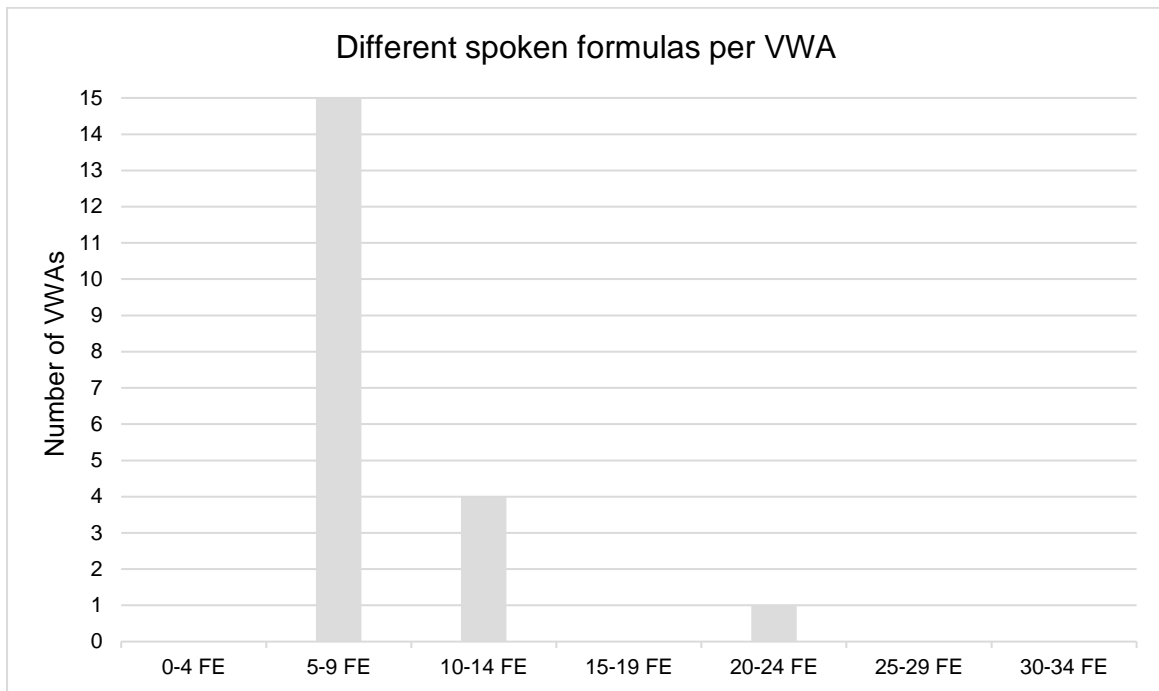


Figure 19: Overview of different spoken formulas per VWA

As can be seen in Figure 19 a single VWA employs 21 different formulas of the third list presented. 15 VWAs have been found to employ between five and nine expressions of the Spoken AFL.

An analysis of all three lists together reveals which VWAs used the most different formulaic sequences. The findings are illustrated in Table 13.

Table 13: Overall number of different formulas used per VWA

VWA	Written AFL	Core AFL	Spoken AFL	TOTAL	TOTAL (excl. spoken AFL)
VWA 14	26	41	21	88	67
VWA 7	35	43	9	87	78
VWA 6	22	54	6	82	76
VWA 19	27	45	7	79	72
VWA 1	20	40	14	74	60
VWA 9	25	35	14	74	60
VWA 16	24	30	14	68	54
VWA 12	22	37	8	67	59
VWA 4	24	30	11	65	54
VWA 8	26	31	8	65	57
VWA 20	23	33	7	63	56
VWA 3	20	33	6	59	53
VWA 5	16	35	7	58	51
VWA 2	21	31	5	57	52
VWA 10	15	32	8	55	47
VWA 18	18	26	7	51	44
VWA 13	18	22	7	47	40
VWA 15	10	23	8	41	33
VWA 17	9	21	7	37	30
VWA 11	7	12	9	28	19

Even though more than 600 formulaic expressions particularly common in the academic area are presented in the AFL by Simpson-Vlach and Ellis (2010), no paper employs more than 88 different formulaic expressions presented in the AFL. Furthermore, Table 13 shows that overall three VWAs employ more than 80 different formulaic expressions. A direct comparison between the top and the bottom VWA listed in Table 13, reveals that the final VWA employs about two thirds less expressions. On average, 62 different formulaic expressions have been employed within the data set investigated. The final column of Table 13 shows the overall employment of different core and written formulas while neglecting formulaic sequences from the Spoken AFL. After disregarding spoken formulas, no VWA is found that uses more than 78 different formulas which is only about 19.16% of all core and written formulas listed. Furthermore, VWA 11 again uses the least number of varying formulas which is only 4.67% of the Written and Core academic formulas listed.

7. Discussion of results

Chapter 6 provided a number of interesting findings that will be briefly discussed in this section. Thereby, the four research questions will be addressed in connection to the results presented.

Two major differences identified by comparing the CARS model (Swales 2004) to the six guiding questions for the introduction section of the VWA (Weigl 2016a) are the lack of a transition from general to more specific information and more specifically, no guiding questions that correspond to move 1 “establishing a territory” and move 2 “establishing a niche” of the CARS model. The six guiding questions focus on the last move “presenting present work” only, as each question is concerned with the VWA itself. The absence of move 2 within the guiding questions is possibly due to a differing communicative purpose of research article introductions and VWA introductions. Hüttner’s (2007: 151) extended genre analysis revealed similar differences in student seminar papers (cf. Chapter 3) and thus, claimed that students “are not required to vie for readership, but only need to fulfill the task of synthesizing previous research”. The same is true for VWAs, as pupils aim at demonstrating their competences by fulfilling the task of writing the VWA appropriately and do not have to identify a gap that can be filled or present any additional findings which is expected from research articles though. Therefore, a greater focus lies on the presentation of the present work in the guiding questions. The differing overall aim of research articles and VWAs is also demonstrated in the following statement of the ministry of education (Bundesministerium für Bildung 2016a: 9):

Ziel der vorwissenschaftlichen Arbeit ist es nicht, neue Erkenntnisse zu gewinnen, sondern in eigenständiger Arbeit Antworten auf die dem Thema impliziten Fragestellungen zu finden und in sprachlich angemessener Form darzulegen, auch wenn es sich um keine neuen Antworten handelt.

The quote clearly shows that VWAs do not have to “vie for readership” (Hüttner 2007: 151) by making original observations while working on the VWA. The main communicative purpose is to inform the reader about the paper in general and does not focus on promoting the paper, which is common for research article introductions. The different communicative purpose also explains why the similarities between the CARS model and the guiding questions are generally identified in move 3 “presenting present work”. Both frameworks suggest to present the aim, the method and also the structure of the paper. However, the guiding questions suggest to discuss the literature the VWA will be based on, while the revised CARS model does not suggest a literature review as an individual step. Furthermore, the ministerial guiding questions recommend to state what will not be covered in the VWA in order to limit the scope. In contrast, a research article introduction

already sets a particular focus by establishing a niche, thus no similar step is necessary in research article introductions. The lack of move 1 “establishing a territory” will be addressed in a later paragraph as even though no corresponding question in the guidelines could be detected, pupils did realize such a move in the data analyzed.

Differences have also been identified between the moves of research article conclusion sections (Yang & Allison 2003: 379-380) and the guiding questions for VWA conclusions. The shared communicative aim of both conclusions is to provide a summary of main findings. Move 2 “evaluating the study” is again absent in the guiding questions. Rather than indicating limitations of the research, the VWA conclusions should address difficulties encountered and how they could be solved. The variation could be due to the lack of new findings in the VWA and again no need for promoting the work. Additionally, Hüttner (2007: 227) argues that students do not have the competences yet to propose solutions for the limitations of their work. This could be also true for pupils writing a VWA and thus the ministry of education could have stressed difficulties encountered rather than limitations of the paper. Furthermore, move 3 of Yang and Allison’s (2003: 379) model includes the step “drawing pedagogic implications”. Offering pedagogical implications would be beyond the scope of the VWA which does not aim at providing new findings in a research area but focuses on existing material. Therefore, pedagogical implications would probably be based on previous research as well and could be mentioned in the summary of the main results as well. However, both models include a step about further research. Yang and Allison (2003: 379) propose the step “recommending further research” and the guiding questions recommend to ask whether open questions for further analysis have been encountered. However, while Yang and Allison (2003) suggest the investigation of further gaps, the guiding questions only recommend further questions that can be addressed in another work without claiming that the questions have to be concerned with a topic not yet researched.

The previous paragraphs should have provided an answer to the first research question of my thesis by summarizing the similarities and differences between the models for move structures of introductions and conclusions of research articles and the guiding questions recommended by the ministry of education. Furthermore, possible explanations for the variations have been proposed.

The second research question is concerned with whether pupils address the guiding questions recommended by the ministry of education and will be answered in this section. Overall, the data analyzed reveals that within the introduction section pupils generally answer the guiding questions suggested by the ministry of education. More specifically,

four questions (question 2-5) were identified in more than 50% of the VWAs. A similar classification to Hüttner's (2007: 126) grouping into 'obligatory', 'core' and 'optional' moves has been applied to the guiding questions. Therefore, questions addressed by up to 49% of pupils are considered optional, those answered by 50% to 90% are core questions and finally, all questions realized by more than 90% are regarded to be obligatory. Hüttner (2007: 126) asks specialists in order to accept or neglect any of the optional moves. However, no such specialists were asked for this thesis but I have attempted to rely on further information within the guidelines or previous research for dismissing or maintaining optional moves. The only question reaching the obligatory status is "How is the VWA structured?" which has been answered in all introductions analyzed. Furthermore, question 2-4 are classified as core questions, as more than 50% addressed these questions in the introduction section. Question 1 "What exactly is your topic?" and question 6 "What will you not do?" are only optional as 35% of pupils respond to these questions. A possible explanation why only 35% have been identified who answer the question "What exactly is your topic?" are the difficulties of separating the answers from the answers provided to the question "What is the aim of your VWA?". Therefore, some pupils might have intended to answer question 1 but actually answered question 3 instead, at least according to my categorization of pupil's statements into the six guiding questions. In contrast, question 6 seemed to be simply neglected by a number of students. In contrast to the general fulfillment of the six guiding questions of the introduction section, concerning conclusions, only the question "What are the main results of the VWA? What should readers remember?" is answered by all pupils, and thus, is regarded obligatory. A possible reason why the remaining two questions have been answered rather infrequently (21.05%) could be the formulation of the questions. While all the other questions use questions words such as "what" or "how", these two questions are yes/no questions which only ask for more detailed information if the answer is actually yes. Therefore, the general status of these questions has to be regarded as optional as not every pupil necessarily encounters difficulties or open questions. The opposite is true for question 1, which requires an answer in the conclusion section as every VWA should offer main results.

In order to answer the third research question, an analysis of additional moves and steps within the introduction and conclusion section has been conducted and the main findings have been shown in chapter 6. Overall, the analysis reveals that pupils employ moves and steps that are not suggested in the guidelines.

The most prominent finding is the identification of the move "establish a territory" within the introduction. Even though the move corresponds to a move identified by Swales (2004)

presented in chapter 3, the individual steps are rather manifold in the introductions of VWAs. For instance, pupils establish a territory by indicating a gap but not in a similar manner to move 2 “establishing a niche” in Swales’ (2004) CARS model but by simply stating a gap or by stating a gap and how the gap can be filled or by announcing reasons for the gap and what consequences the gap has. Therefore, the step is aimed to introduce the topic and provide background information rather than to establish a niche for the present research. However, pupils seem to be aware that an introduction section usually includes some kind of background information or centrality claims in order to prepare the reader for the specific topic the paper is dealing with. The importance of move 1 “establishing a territory” has already been shown in chapter 3, as all studies presented include either exactly the move “establishing a territory” (Anthony 1999; Samraj 2008; Kanoksilapatham 2011; Bunton 2002; Soler-Monreal, Carbonell-Olivares & Gil-Salom 2011) or a similar move such as “leading into the topic” identified by Hüttner (2007). Therefore, a lack of this move within the guiding questions demonstrates a major drawback of the ministerial guidelines as a lot of empirical evidence supports the importance of this specific move.

Most overlaps between the CARS model (Swales 2004) and the guiding questions have been identified within move 3 “presenting the present work”. The six guiding questions have been transformed into steps or sub-steps within move 2 “presenting the present work”, as they all fulfill the main communicative purpose of providing more detailed information about the VWA itself. Even though the CARS model (2004) already proposes a number of steps within move 2, the VWA introductions reveal a variety of different sub-steps. However, most of the sub-steps are only realized within a single VWA and therefore, a larger data set would have to be analyzed for further assumptions. The two sub-steps “justification for specific topic” and “state personal reason for choosing aim” are identified in five and six introductions, respectively. Nevertheless, the statement of personal views is discouraged by the ministry of education within the guidelines and therefore, should be disregarded, even though the sub-steps are present in more than 20% of the VWAs. Furthermore, the studies described in chapter 3 do not include a similar step or sub-step in the various models either which supports the view of the ministry of education. Moreover, move 3 “expressing personal thoughts” and move 4 “expressing gratitude” have been disregarded as well because personal accounts are not only discouraged within the guidelines but also not evident in the models of larger studies conducted.

The analysis also revealed further moves and steps in the conclusion section, presented in chapter 6. Interestingly, in 68.42% of the conclusion sections pupils provide some kind

of evaluation of the VWA or the results presented. However, no limitations of their actual VWA have been addressed but generally limitations within the results caused by gaps in the research field or limitations of the topic in general. With 68.42% the move can be considered a core move of a VWA conclusion section. A further move identified by Hüttner (2007) as well and similarly by Yang and Allison (2003) is “deductions from VWA/providing wider outlook”. Besides the step “state open questions that can be analyzed” a further step “recommend further research” could be identified with an identical frequency of 21.05%. Therefore, pupils seem to employ a step proposed in the models by Yang and Allison (2003: 379) and Hüttner (2007: 205) even though a different step is suggested in the guiding questions by the ministry of education. Finally, move 4 “providing personal reflection” is identified in 47.37% of the conclusions but will be disregarded as no indication of presenting personal views is suggested within the guidelines nor in any of the studies presented in chapter 3 (Bunton: 2005; Hüttner 2007; Yang & Allison 2003). Hüttner (2007: 220) identifies a similar step within student seminar papers, however, the experts regard the move as inappropriate and therefore, no such move is presented in Hüttner’s (2007: 220) model either.

The fact that a variety of moves and steps have been identified within the data set investigated which do not completely correspond to those of already established models, leads to the assumption that the move structure of VWA introductions and conclusions in particular, is not well conventionalized in the discourse community involved. Furthermore, the three guiding questions seem to be less useful for writing the conclusion section as less pupils answered the questions recommended in comparison to the overall results for the introduction section, where four out of six questions have been answered in more than 50% of the introduction sections. Nevertheless, adapting the guidelines in correspondence with the findings of various researchers, who have conducted move structure analyses within research articles, student papers or Master’s or PhD theses, would be beneficial also for the major aim of preparing pupils to become successful students at university. Furthermore, a number of studies presented in chapter 3 identified disciplinary variations on the level of individual steps in introduction sections (Bunton 2002; Samraj 2002; Soler-Monreal, Carbonell-Olivares and Gil-Salom 2011; Kanoksilapatham 2012; Ono 2012). The findings indicate that a focus on disciplinary variations in VWA introductions and probably also conclusions would be beneficial.

The final question of my thesis is concerned with the use of formulaic expressions characteristically identified in academic writing. For this purpose, the Academic Formulas List introduced by Simpson-Vlach and Ellis (2010) offered a set of target expressions that

have been analyzed in the whole VWA rather than the introduction and conclusion only. The interest in formulaic sequences has been influenced by the findings that they are ubiquitous within language use (Schmitt & Carter 2004: 1) and moreover, as they seem to signal group membership (Hyland 2008) and certain sequences appear to be prevalent in academic discourse and specific genres. Even though a number of studies have focused on identifying formulaic sequences, a direct comparison of the results is rather difficult due to the different size of the data set and also because a target list of expressions has been searched for only in this thesis.

The analysis of the target expressions offered by the AFL indicates that pupils seem to have an awareness for formulaic sequences as 74 different formulas of the core and the written AFL could be identified in at least 25% of the data. Additionally, only eight sequences occurring in 25% of the VWAs belong to the spoken AFL, which can be regarded positively as academic writing should not be based on spoken language. A closer analysis of the individual VWAs revealed that the highest overall number of different formulas used within a single VWA is 88 while the highest number of different core and written formulas within one VWA is 78. Furthermore, at least 19 different core and written formulas have been employed by each VWA in the data set analyzed. On average, the VWAs employ 62 different sequences (53 of written and core formulas only). Nevertheless, the Core and Written AFL comprise 407 phrases and therefore, the average percentage of different formulas employed from the two lists is only 13.02%. For further suggestions about the significance of the numbers identified, a comparison of the use of the formulas presented in the AFL within expert academic writing, such as research articles would be interesting. Furthermore, a larger VWA-data set would be necessary for drawing any conclusions. No significant findings could be gained by investigating pupils' mother tongues. Among the six VWAs employing more than 70 different formulaic expressions three pupils are German native speakers, two pupils claimed to be bilinguals of English and German and one pupil is native speaker of Nepali and English. A mix of mother tongues (German, English and German & English) is also present among those VWAs showing the least varying sequences. Therefore, no suggestions about the influence of pupils' native language and their use of formulaic expressions can be made.

A final outcome of investigating formulaic expressions is the function these formulas fulfill according to the AFL. In the VWAs most formulas employed belong to group A "referential expressions" with 65.85%. "Stance expressions" as well as "discourse organizers" are less frequent in the data set with 17.07% each. Referential expressions' main function is to specify attributes (Chen & Baker 2010: 37), examples of the category found in the VWAs

are: *based on the, in response to, part of the, a variety of*. The group of referential expressions is the largest functional group in the AFL (Simpson-Vlach & Ellis 2010: 503), therefore, the prevalence of formulas belonging to this group within the VWAs is not surprising. Stance expressions such as *likely to be, it is important to or be seen as* express writer's attitudes or evaluation of a proposition (Chen & Baker 2010: 37). Finally, discourse organizers are employed to structure texts (Chen & Baker 2010: 38). Discourse organizers identified in the VWAs are *for example the, as well as, and as shown in*. Ädel and Erman (2012), investigating formulaic sequences in undergraduate linguistics students' texts, show that referential expressions are also most commonly employed in their data set. However, the use of stance bundles is slightly more prominent than of discourse organizing expressions. Chen and Baker (2010: 38) analyzed expert's use of formulaic sequences in comparison to student's employment of those sequences and found out that referential expressions are more commonly employed by experts than students (60% and 37%, respectively). Even though the two studies reveal similar tendencies of the functions of the formulaic expressions employed, further parameters need to be taken into account for a direct comparison. For instance, the disciplinary variations within the VWAs would need to be further investigated as well as the occurrences of the academic formulas within expert writings.

Overall, the analysis of the genre VWA revealed that the introduction and conclusion sections differ to a great extent from research articles. However, the overall communicative purposes vary too which is founded in the differing aims of the two genres in general. While pupils should demonstrate five major competences when writing the VWA (Selbstkompetenz, inhaltliche und methodische Kompetenz, Informationskompetenz, sprachliche Kompetenz, Gestaltungskompetenz), a researcher aims at filling a gap in research or adding new information to the field one is working in. Therefore, a clear difference has to be visible in the introduction and conclusion sections as well. Moreover, this thesis revealed that pupils do not strictly follow the guidelines offered by the ministry of education but also employ additional moves and steps, some of which resemble those identified in research articles or student papers. Therefore, a connection between these genres can be identified as well. As presented in chapter 3, Hüttner (2007: 102) described the term "genre colony" which "signifies a grouping of genres relevant to the same or closely related discourse communities, and is defined as containing overlaps in some of the core communicative intentions realized". VWA introductions and conclusions can be regarded as belonging to the same genre colony as student papers and also research articles as they share some core communicative intentions such as providing general information about the topic of the work or presenting the present paper/article.

Furthermore, the discourse communities are related as well because pupils writing a VWA might become members of the discourse community one level above, namely students. Furthermore, pupils are directly involved with the genre of research articles, as they gain part of the information needed for their VWAs from research articles. The analysis revealed moves and steps that are perceived inappropriate by specialists and also the ministry of education. Furthermore, a number of steps used within a single VWA have been identified. Therefore, the findings of my thesis indicate that the move/step structure of introductions and conclusions of VWAs is still very heterogeneous. Even though the guiding questions seem to be a good starting point, adjustments of the guidelines could be beneficial which adapt the model and make it more similar to the move and step framework identified by various researchers on the basis of empirical studies. Finally, pupils show some awareness of formulaic expressions as all pupils used a set of different formulas in their texts. Furthermore, the identification of a high amount of referential expressions used by the pupils and a less prominent use of stance expressions and discourse organizers are in line with findings of Ädel and Erman (2012) as well as the results of Chen and Baker (2010) about expert writer's use of bundles. However, as different data and sequences have been employed, a direct comparison is very limited and further studies would be beneficial in order to investigate pupils' use of formulaic expressions characteristically used in academic writing.

8. Conclusion

The aim of this thesis has been to shed light on the introduction and conclusion sections of the VWA by conducting a move structure analysis. The guiding questions for these sections offered by the ministry of education have been integrated in the analysis. Additionally, an interest of this thesis has been pupils' employment of target formulaic expressions identified by Simpson-Vlach and Ellis (2010) and summarized in the Academic Formulas List.

First of all, the guiding questions have been compared to two models concerned with move structures of research article introductions and conclusions due to the fact that research articles are professional academic texts which can be regarded as "role models" of successful academic writing. Furthermore, these models have been established by investigating sample texts and therefore, represent what is actually done by experts. In contrast, no information is provided by the ministry of education, how the guiding questions for the VWA have been composed. Secondly, answers to the guiding questions have been analyzed in the VWAs in order to find out whether pupils actually consider the guidelines when writing their VWAs. Finally, additional steps and also moves have been searched for

in the VWAs for the creation of a general overview of the structures employed. A second aim of this thesis has been the identification of formulaic expressions common in academic discourse within the VWAs by employing the AFL by Simpson-Vlach and Ellis (2010). The small data set led to the decision of investigating the whole VWAs instead of introductions and conclusions only.

Major differences could not only be identified between the ministerial guidelines and the models of move structures of research article introductions/conclusions but also among the guidelines and what pupils actually have written about in these two sections. A first contrast identified between the well-established CARS model (2004) as well as the model for research article conclusions (Yang & Allison 2003) and the ministerial guidelines is the lack of a logical order of the guiding questions suggested. As the insights gained from empirical studies presented in this thesis confirm the existence of a general sequence of moves and steps, this variation can be regarded a limitation of the guidelines.

The most important finding of comparing the ministerial guidelines to the move structure of research article introductions and conclusions is that even though core communicative purposes are shared by both genres, a differing communicative intention could be identified in both sections. The contrast in communicative purposes has also been detected when analyzing additional moves and steps employed by the pupils. For instance, the move “establish a niche” is not present in any of the VWAs analyzed but is generally a prominent move in research article introductions. Therefore, in contrast to research article introductions, no need to “vie for readership” (Hüttner 2007) has been identified in pupils’ VWAs.

The study shows that more than 50% of the pupils whose papers have been analyzed respond to at least four of the six guiding questions of the introduction section. However, only the question concerning the VWA structure has been regarded obligatory by the pupils. In the conclusion section, only one of the three questions is answered in all VWAs.

The identification of additional moves and steps in pupils’ VWAs led to the conclusion that pupils do not strictly follow the guidelines by simply answering the recommended questions but add a number of additional individual steps and thereby, further moves. For example, a common move “establish a territory” could be detected in the introduction sections while the move “deductions from VWA/providing wider outlook” has been detected in VWA conclusion sections as an additional move employed.

The six guiding questions for the introduction section have been regarded as steps within the move “presenting the present work”. They all provide additional information about the VWA itself and therefore share the common communicative purpose of providing information about the VWA. In the conclusion section, the guiding question “What are the main results of the VWA? What should readers remember?” has been substituted by the move “summarizing VWA” as they share the goal to present a summary. Even though the guiding questions could be integrated in a move/step framework based on their communicative function, no standard model could be established. As the data set analyzed in this thesis is too small for offering any assumptions about disciplinary variations of VWA introduction and conclusion sections, further studies would need to focus on a comparison of disciplines. Additional findings, including disciplinary differences, in VWA introductions and conclusions would be beneficial in order to provide a revised model for VWA introductions and conclusions that could not be offered in this thesis.

The investigation of formulaic expressions based on the AFL (Simpson-Vlach & Ellis 2010) shows that pupils already employ a set of fixed phrases specifically common in academic writing. Overall, 82 different formulas could be detected in at least 25% of the VWAs. However, as overall more than 600 target formulas have been analyzed in the corpus, only 13% of the target bundles could be detected (18% of core and written AFL). In terms of the discourse functions of the formulas detected, most sequences belong to the group “referential expressions”. The remaining groups “stance expressions” and “discourse organizing functions” are rather infrequently identified. The findings of this thesis indicate that pupils could benefit from actual teaching of formulaic expressions commonly used in academic writing, as only a small number of formulas are employed so far.

In conclusion, this thesis demonstrates that the move structure of VWA introductions and conclusions is still somewhat heterogeneous as a great number of steps are identified. Furthermore, the guiding questions recommended by the ministry of education could be revised as the analysis shows that pupils add a number of additional steps since the guidelines do not suffice their purposes. Additionally, empirical evidence supported the usefulness of move/step frameworks such as the CARS model (Swales 2004). Therefore, a similar approach could be established and substitute the current guiding questions. Finally, pupils already seem to have some awareness of formulaic expressions common in academic discourse as target bundles of the AFL could be identified within the VWAs. However, the AFL offers a large number of further formulas pupils could be taught in preparatory classes in order to enhance their linguistic competences.

This thesis could offer initial insights on the move structure of introductions and conclusions of VWAs and pupils' use of target formulaic expressions. However, further research could lead to interesting and beneficial findings about these two sections of VWAs such as disciplinary variations. Furthermore, pupils could be interviewed or they could fill out a questionnaire in order to gain more information about the writing process and pupils' knowledge of academic writing and the genre VWA. Additionally, pupils' mother tongue and language proficiency in English could be analyzed in greater detail to find out if differences in the use of formulaic expressions are observable or how the use of formulaic language is influenced. Finally, further research on larger data sets could focus on formulaic sequence usage in introductions and conclusions only to identify genre-functional and genre-specific sequences identified by Hüttner (2007).

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10. Appendix

Appendix 1: Official assessment criteria (Bundesministerium für Bildung 2016b)

Beurteilungsraster für die VWA

Thema der VWA:

Prüfungskandidat/in:

Prüfer/in:

Der Beurteilungsraster für die vorwissenschaftliche Arbeit stellt eine unverbindliche Orientierungshilfe für die Bewertung der Kompetenzen der Schüler/innen dar. Die Kompetenzen werden durch sog. Deskriptoren näher beschrieben, die Gewichtung der Deskriptoren liegt im Ermessen des/der Prüfers/in. Diese sollen bei der Einschätzung bzw. Bewertung der jeweiligen Kompetenz hilfreich sein. Der Beurteilungsraster kann bei der Erstellung des begründeten Beurteilungsvorschlages Unterstützung bieten, auf Grundlage des Beurteilungsvorschlags entscheidet die Prüfungskommission über die Beurteilung der vorwissenschaftlichen Arbeit.

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Selbstkompetenz					
Der/Die Prüfungskandidat/in...				Anmerkungen	
...setzt aktiv Schritte zur Themenfindung und Formulierung der Fragestellung.					
...plant den Arbeitsprozess sorgfältig und gestaltet durch eigenständiges Denken und Arbeiten die einzelnen Prozessschritte.*					
...wählt angemessene Methoden zur Bearbeitung des Themas.					
...dokumentiert den Prozess sorgfältig und hält sich an gemeinsam festgelegte Termine und Vereinbarungen.					
...setzt sich ernsthaft mit ggf. angebotenen Hilfestellungen und Korrekturvorschlägen des Betreuers/der Betreuerin auseinander.*					
Selbstkompetenz	nicht erfüllt	überwiegend erfüllt	zur Gänze erfüllt	über das geforderte Maß hinaus erfüllt	weit über das geforderte Maß hinaus erfüllt

*Nur bei betreuten Arbeiten.

Inhaltliche und methodische Kompetenz					
Der/Die Prüfungskandidat/in...					Anmerkungen
...geht mit zielführenden Fragestellungen und Methoden an die Themenbearbeitung heran.					
...stellt Fachwissen und aus der Literatur übernommene Fakten und Daten korrekt dar.					
...bearbeitet das Thema fundiert.					
...baut die Arbeit stringent auf.					
...setzt sich in nachvollziehbarer und zielführender Weise mit der/den Fragestellung(en) auseinander.					
...stellt Ergebnisse seiner/ihrer Arbeit sachlich und schlüssig dar.					
...setzt die gewählten Methoden passend und korrekt ein.					
Inhaltliche und methodische Kompetenz	nicht erfüllt	überwiegend erfüllt	zur Gänze erfüllt	über das geforderte Maß hinaus erfüllt	weit über das geforderte Maß hinaus erfüllt
Informationskompetenz					
Der/Die Prüfungskandidat/in...					Anmerkungen
...recherchiert eigenständig passende Quellen und relevantes Datenmaterial.					
...schätzt die Qualität der Quellen und des Datenmaterials richtig ein und wählt sie entsprechend ihrer Relevanz für das Thema aus.					
...zitiert den vereinbarten Vorgaben entsprechend wissenschaftlich korrekt und einheitlich.					
Informationskompetenz	nicht erfüllt	überwiegend erfüllt	zur Gänze erfüllt	über das geforderte Maß hinaus erfüllt	weit über das geforderte Maß hinaus erfüllt

Sprachliche Kompetenz					
Der/Die Prüfungskandidat/in...					Anmerkungen
Die sprachliche Ausdrucksweise des/der Prüfungskandidaten/in entspricht den Anforderungen sachlich-informierenden Schreibens.					
...achtet auf die Lesbarkeit des Textes durch Klarheit in Aufbau und Gliederung sowie in Ausdruck und Formulierung.					
...baut direkte und indirekte Zitate sprachlich und stilistisch passend in den Textzusammenhang ein.					
...beherrscht die Regeln von Orthografie, Grammatik und Satzzeichensetzung.					
Sprachliche Kompetenz	nicht erfüllt	überwiegend erfüllt	zur Gänze erfüllt	über das geforderte Maß hinaus erfüllt	weit über das geforderte Maß hinaus erfüllt
Gestaltungskompetenz					
Der/Die Prüfungskandidat/in					Anmerkungen
...formuliert die einzelnen Abschnitte der Arbeit entsprechend ihrer Funktion.					
...gestaltet die Arbeit gut lesbar durch sorgfältige und einheitliche Formatierung und Gliederung.					
...berücksichtigt die formalen Erfordernisse.					
Gestaltungskompetenz	nicht erfüllt	überwiegend erfüllt	zur Gänze erfüllt	über das geforderte Maß hinaus erfüllt	weit über das geforderte Maß hinaus erfüllt
Strukturelle und inhaltliche Präsentationskompetenz					
Der/Die Prüfungskandidat/in...					Anmerkungen
...gliedert die Präsentation klar erkennbar, stringent und zielgerichtet.					
...stellt die Kernaussagen sachkompetent und folgerichtig dar.					
...gewichtet den Umfang einzelner Aspekte gemäß ihrer Relevanz und richtet den Fokus auf zentrale Ergebnisse und Erkenntnisse.					
Strukturelle und inhaltliche Präsentationskompetenz	nicht erfüllt	überwiegend erfüllt	zur Gänze erfüllt	über das geforderte Maß hinaus erfüllt	weit über das geforderte Maß hinaus erfüllt

Ausdrucksfähigkeit und Medienkompetenz					
Der/Die Prüfungskandidat/in...					Anmerkungen
...bedient sich einer zusammenhängenden, das Verständnis unterstützenden Ausdrucksweise in Standardsprache und formuliert differenziert und verständlich.					
...wählt die eingesetzten Medien dem Inhalt angemessen. Diese unterstützen den Vortrag sinnvoll.					
...gestaltet die Texte bei den eingesetzten Medien fehlerfrei und die Visualisierungen dem Thema angemessen.					
...geht kompetent mit den eingesetzten Medien um.					
...spricht frei und verwendet geeignete Mittel der verbalen und nonverbalen Kommunikation.					
Ausdrucksfähigkeit und Medienkompetenz	nicht erfüllt	überwiegend erfüllt	zur Gänze erfüllt	über das geforderte Maß hinaus erfüllt	weit über das geforderte Maß hinaus erfüllt
Diskurs- und Kommunikationsfähigkeit					
Der/Die Prüfungskandidat/in...					Anmerkungen
...beantwortet allfällige Fragen nach seinem/ihrem Zugang zum Thema und zur Fragestellung reflektiert.					
...beantwortet Fragen zum Inhalt der Arbeit sachkompetent.					
...antwortet fundiert auf Fragen zum methodischen Vorgehen und zum Arbeitsprozess.					
...argumentiert Positionen schlüssig und sachlogisch.					
Diskurs- und Kommunikationsfähigkeit	nicht erfüllt	überwiegend erfüllt	zur Gänze erfüllt	über das geforderte Maß hinaus erfüllt	weit über das geforderte Maß hinaus erfüllt

Besteht Plagiatsverdacht? Ja Nein

Zeichenzahl:

Beurteilungsvorschlag aus schriftlicher Arbeit, Präsentation, Diskussion:.....

Ort, Datum: Unterschrift Prüfer/in

**Appendix 2: The Academic Formulas List categorized by function
(Simpson-Vlach & Ellis 2010: 498-502)**

Group A. Referential expressions

(1) Specification of attributes

(a) Intangible framing attributes

Core AFL (written & spoken)

[a/the] form of	(in) such a (way)	the distribution of	the problem of
(as) a function (of)	(in) terms of (the)	the existence of	the process of
based on [a/the]	in which the	(the) extent to which	the question of
focus on the	is based on (the)	(the) fact that (the)	the role of
form of the	nature of the	the idea that	the structure of
(from) (the) point of view (of)	of the fact	the issue of	the study of
in relation to	(on) the basis (of)	the meaning of	(the) way(s) in (which)
in response to	the ability to	the nature of (the)	the way that
(in) the case (of)	the concept of	the notion of	the work of
in the context (of)	the context of	the order of	the use of
in the sense (that)	the definition of	the presence of (a)	with respect to (the)
the development of			

Primarily spoken

it in terms of	the idea of	the kind of	this kind of
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Primarily written

an attempt to	in accordance with (the)	in the course of	on the basis of the
[are/was] based on	(in) such a way that	in the form of	on the part of
by virtue of	in terms of a	in this case the	to the fact that
degree to which	in the absence of	insight into the	with regard to
depend[ing/s] on the			

(b) Tangible framing attributes

Core AFL (written/spoken)

(as part of [a/the]	the change in	(the) part(s) of the	(the) size of (the)
the amount of	the frequency of	the rate of	(the) value of (the)
the area of	the level of		

Written AFL

an increase in the	High levels of	over a period of	
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(b) Tangible framing attributes

Core AFL (written/spoken)

a list of	[a/large/the] number of	both of these	of the second
a series of	And the second	each of [the/these]	the first is

a set of		of [the/these] two	there are three
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Primarily spoken

all sorts of

Primarily written

a high degree	little or no	in some cases	there are no
a large number (of)	in a number of	(the) total number (of)	there are several
(a) small number (of)	in both cases	(there) are a number (of)	two types of
(a) wide range (of)	in most cases		

(2) Identification and focus

Core AFL (written & spoken)

a variety of	is for the	it is not	that this is
[an/the] example of (a)	is not [a/the]	means that the	that we are
as an example	is that [it/the/there]	referred to as	there is [a/an/no]
different types of	is the case	such as the	this is [a/an/not]
here is that	is to be	that in [a/the]	this type of
if this is	it can be	that is the	this would be
	it does not	that there [are/is (a)]	which is [not/the]

Primarily spoken

[has/have] to do with	how many of you	so this is	this is the
it's gonna be	nothing to do with	the best way to	this is this is
and this is	one of these	there was a	those of you who
for those of you (who)			

Primarily written

(as) can be seen (in)	it has been	that there is no	this does not
does not have	none of these	there has been	this means that
has also been	that it is not	they [did/do] not	which can be
his or her			

(3) Contrast and comparison

Core AFL (written & spoken)

and the same	different from the	is much more	(the) difference between (the)
as opposed to	exactly the same	related to the	the relationship between
associated with the	have the same	the same as	
between the two	[in/of/with] the same		

Primarily spoken

(nothing) to do with (the) the same thing to each other

Primarily written

be related to the (on) the other (hand) the difference (the) same way as
(the) (the) between the
is more likely similar to those to distinguish between

(4) Deictics and locatives

Core AFL (written and spoken)

a and b the real world of the system

Primarily spoken

(at) the end (of) (the) (at) (the) University of piece of paper at this point
Ann Arbor Michigan

Primarily written

at the time of at this stage b and c the United Kingdom

(5) Vagueness markers

Core AFL (written & spoken)

and so on

Primarily spoken

and so forth and so on and so blah blah blah

Group B. Stance expressions

(1) Hedges

Core AFL (written & spoken)

(more) likely to (be) [it/there] may be may not be to some extent

Primarily spoken

a kind of it could be it might be might be able (to)
a little bit about it looks like little bit about you might want to
in a sense

Primarily written

appear(s) to be at least in is likely to (be) it is likely that
are likely to does not appear it appears that less likely to
as a whole

(2) Epistemic stance

Core AFL (written & spoken)

according to the assume that the to show that we can see
be the case out that the

Primarily spoken

[and/as] you can (see)	how do we	trying to figure (out)	what do you mean
do you know what	how do you know	to figure out (what)	what does that mean
(does) that make sense	I think this is	you think about it	(you) know what I (mean)
okay I don't know			

Primarily written

assumed to be	be seen as	be considered as	is determined by
be argued that	been shown to	have shown that	we assume that
be explained by	can be considered	if they are	we have seen
be regarded as			

(3) Obligation and directive**Primarily spoken**

do you want (me) (to)	I want you to	tell me what	you don't need to
doesn't have to be	it has to be	(to) make sure (that)	you need to (do)
don't worry about	keep in mind	we have to	you want me to
has to be	take a look (at)	we need to	you want to

Primarily written

(it should) be noted (that)	need not be	should also be	take into account (the)
	needs to be	should not be	to ensure that (the)

(4) Expressions of ability and possibility**Core AFL (written & spoken)**

can be used (to)	to use the
------------------	------------

Primarily spoken

(gonna) be able (to)	that you can	(you) can look at	you could you could
so you can (see)	to think about	you can see ([that/the])	you're trying to

Primarily written

allows us to	be used as a	can easily be	it is possible ([that/to])
are able to	be used to	can be found (in)	most likely to
be achieved by	can also be	could be used	their ability to
[be/been/was] carried out	can be achieved	has been used	to carry out
carried out [by/in]	can be expressed	(it) is not possible (to)	

(5) Evaluation**Core AFL (spoken & written)**

the importance of

Primarily spoken

it doesn't matter

Primarily written

important role in
is consistent with
it is difficult

it is important (to)
it is impossible to
it is interesting to

it is necessary (to)
it is obvious that
it is worth

(it) is clear (that)
the most important

(6) Intention/volition, prediction**Primarily spoken**

I just wanted to
I wanted to

if you wanna
if you want(ed) (to)

if you were (to)
I'm gonna go

I'm not gonna
let me just
um let me

Primarily written

to do so

we do not

Group C: Discourse organizing functions**(1) Metadiscourse and textual reference****Primarily spoken**

come back to
go back to the

I'm talking about
talk a little bit

we talk(ed) about
we were talking
(about)

We've talked about
what I'm saying

gonna talk about
I was gonna say

talk(ing) about the
to talk about

We'll talk about
We're gonna talk
(about)

what I'm talking about
what you're saying

(I) was talking about
I'll talk about

wanna talk about

We're talking about

You're talking about

Primarily written

as shown in
at the outset
in table 1

in the next section
in the present study
in this article

(in) this paper (we)
shown in figure

shown in table
the next section

(2) Topic introduction and focus**Core AFL (written & spoken)**

For example [if/in/the] what are the

Primarily spoken

a look at
first of all
I have a question
I'll show you

if you've got
let's look at
look at [it/the/this]
looking at the

wanna look at
we look(ed) at
we're looking at
what I mean

when you look at
you have a
you look at (the)
you're looking at

if you have (a)	to look at (the)	what I want to	you've got a
if you look (at) (the)			

(3) Topic elaboration

(a) non-causal

Core AFL (written & spoken)

But this is

Primarily spoken

any questions about	I mean if (you)	see what I'm saying	what happens is
came up with	(it) turns out (that)	so if you	you know what I'm
come up with (a)			

Primarily written

are as follows	in more detail	see for example	such as those
factors such as			

(b) Topic elaboration: cause and effect

Core AFL (written & spoken)

[a/the] result of	due to the	so that the	the reason for
(as) a result (of)	in order to	the effect(s) of	whether or not (the)
because it is			

Primarily spoken

End up with	in order to get	the reason why
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Primarily written

as a consequence	for the purpose of	give rise to	it follows that
as a result of the	for this purpose	is affected by	to determine whether
due to the fact (that)	for this reason		

(4) Discourse markers

Core AFL (written & spoken)

and in the	as well as	at the same (time)	(in) other words (the)
------------	------------	--------------------	------------------------

Primarily spoken

and if you	but if you	no no (no)	oh my god
and then you	by the way	thank you very (much)	yes yes yes

Primarily written

even though the	in conjunction with
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Appendix 3: Additional moves and steps identified in VWA introductions

INTRODUCTION Moves/steps	Total number	Percentage
MOVE 2: Presenting the present work	17	94.44%
<i>Step 1: State topic explicitly</i>	6	33.33%
Sub-step 1: justification for specific topic/focus	5	27.78%
Sub-step 2: Example and question raised by example	1	5.56%
Step 2: Indicate use of sources	12	66.67%
<i>Sub-step 1: Discuss sources used in VWA (explicit examples)</i>	9	50.00%
Sub-step 2: Indicate use of sources (no explicit examples)	6	33.33%
Sub-step 3: Indicate limitations of sources	2	11.11%
Step 3: Describe aims	15	83.33%
<i>Sub-step 1: Present aims of VWA</i>	15	83.33%
Sub-step 2: State personal goal	1	5.56%
Sub-step 3: State personal reason for choosing aim	4	22.22%
Sub-step 4: Give information about fulfilment of aim	1	5.56%
Sub-step 5: State limitations of aim	1	5.56%
Sub-step 6: State how limitations is attempted to be overcome	1	5.56%
Sub-step 7: State importance of aim/provide justification for aim	2	11.11%
Sub-step 8: Announce gap + positive effect of filling gap	1	5.56%
Sub-step 9: State gap in research and what has been done in VWA to overcome gap	2	11.11%
Step 4: Describe method	14	77.78%
Sub-step 1: Justification for choosing method	3	16.67%
Sub-step 2: Refer to help for being able to use a certain method	1	5.56%
Step 5: Describe structure of paper	17	94.44%
Sub-step 1: Justify theme of single chapters	3	16.67%
Sub-step 2: Evaluate single chapters	2	11.11%
Sub-step 3: Announce research gap to justify gap in chapter	2	11.11%
Sub-step 4: State source for structure	1	5.56%
Sub-step 5: State reason for structure	1	5.56%
Step 6: Describe what VWA will not include	6	33.33%
Sub-step 1: Provide explicit examples and explanation for choice	6	33.33%
Sub-step 2: Express generally what will not be included	1	5.56%
Sub-step 3: Indicate further research (no clear examples)	1	5.56%
Step 7: Announce what can be expected from results / hypothesis	3	16.67%
Step 8: Indicate initial findings	1	5.56%
Step 9: State limitations/difficulties of actual analysis	1	5.56%
MOVE 3: Expressing personal thoughts	2	11.11%
Step 1: Expressing hopes of effect of paper	1	5.56%
Step 2: Provide outlook of topic in relation to author	2	11.11%
MOVE 4: Expressing gratitude	1	5.56%
Step 1: Thanking	1	5.56%

11. Abstract

This thesis investigates the newly introduced genre “Vorwissenschaftliche Arbeit” in Austrian grammar schools. In particular, the genre analysis examines the move structure of introduction and conclusion sections of the VWA. A second interest of this thesis is the employment of target formulaic sequences, which have found to be more common in academic discourse than non-academic speech and writing. The empirical study has four parts: First, guiding questions recommended by the ministry of education for writing the introduction and conclusion section of the VWA are compared to a well-established model for move structures for research article introductions and a model for research article conclusions. Secondly, pupils’ responses to the guiding questions are analyzed in a data set of 20 VWA introductions and conclusions. Thirdly, the overall move structure of VWA introductions and conclusions are examined by also taking into account the findings of the aforementioned analysis. Finally, target expressions recorded in the Academic Formulas List by Simpson-Vlach and Ellis (2010) are searched for in the corpus consisting of all parts of the VWAs. The study reveals that the ministerial guiding questions do not represent the overall structure of VWA introductions and conclusions. Pupils seem to employ similar moves and steps to related genres such as research articles but mostly seminar papers. However, a great number of steps, especially in introductions, have been identified illustrating the heterogeneity of the novel genre. The results of analyzing target bundles recorded in the Academic Formulas List indicate pupils’ general awareness of certain expressions common in academic discourse. The findings of this thesis imply a need for a revision of the ministerial guiding questions and for further instructions on genre specific structures and also the use of formulaic expressions of pupils at Austrian grammar schools.

12. Summary in German – Deutsche Zusammenfassung

Diese Diplomarbeit beschäftigt sich mit dem neu eingeführten Genre „Vorwissenschaftliche Arbeit (VWA)“ an österreichischen allgemein bildenden höheren Schulen. Mithilfe einer Genreanalyse wurden die Einleitung und der Schlussteil der vorwissenschaftlichen Arbeiten untersucht, um deren tatsächlichen Organisationsstrukturen zu identifizieren. Darüber hinaus analysiert diese Arbeit den Gebrauch von formelhaften Phrasen, welche besonders dem akademischen Sprachgebrauch zugeordnet worden sind. Die empirische Studie ist in vier Teile gegliedert. Im ersten Abschnitt wurden die vom Bildungsministerium vorgeschlagenen Leitfragen für das Verfassen der Einleitung und des Schlussteils zwei empirisch belegten

Modellen, welche die Organisationsstrukturen von Einleitungen und Schlussteilen von wissenschaftlichen Artikeln darstellen, gegenübergestellt. Im zweiten Teil wurde untersucht, inwiefern diese Leitfragen tatsächlich von den SchülerInnen beantwortet werden. Insgesamt wurden 20 Einleitungen und Schlussteile für die Analyse herangezogen. Danach wurde die allgemeine Organisationsstruktur der untersuchten Abschnitte ermittelt. Hierzu wurden auch jene Textpassagen berücksichtigt, welche in der zuvor genannten Analyse den jeweiligen Leitfragen zugeordnet worden sind. Zuletzt wurden die gesamten Arbeiten auf Vorkommnisse von formelhaften Phrasen untersucht, die in der sogenannten „Academic Formulas List“ zusammengefasst wurden. Die vorliegende Studie hat gezeigt, dass die Einleitungen und Schlussteile der untersuchten VWAs nicht ausschließlich auf die Leitfragen des Bundesministeriums für Bildung antworten, sondern auch, dass ähnliche Organisationsstrukturen wie jene von wissenschaftlichen Artikeln oder Seminararbeiten vorliegen. Nichtsdestotrotz wurde im Allgemeinen eine sehr heterogene Struktur gefunden. Die Analyse der formelhaften Phrasen hat gezeigt, dass SchülerInnen bereits einige der im akademischen Bereich häufig vorkommenden Phrasen in deren Texten verwenden. Die Resultate implizieren, dass die Leitfragen noch adaptiert werden könnten, um den Aufbau der Einleitung und des Schlusses klarer zu strukturieren und somit die tatsächliche Umsetzung für SchülerInnen zu erleichtern. Darüber hinaus könnten die SchülerInnen im Unterricht auf Genre spezifische Organisationsstrukturen vorbereitet werden. Die Verwendung von formelhaften Phrasen im Sprachgebrauch der SchülerInnen könnte ebenfalls verbessert werden, um eine angemessenere Ausdrucksform zu erreichen.