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## Environmental student groups and their effect on environmentally sustainable policies in higher education institutions:

A comparative case study between a Dutch and a German university

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## Abstract

This study aims to answer the question: How can differences be explained, between a German and Dutch university, with respect to the influence of environmental student groups on environmentally sustainable policies of their university? Causal-process tracing and Realistic Evaluation allows for tracing the factors of the *level of regulation*, *the type of university*, *tuition payments*, *student size* and the *level of engagement* that are presumed to drive the outcomes of the group's influence toward the decision-making process of the university, the level of interest in environmental student groups and the viability of these groups. The study is approached with a comparative two-case study with one student group from a Dutch and another from a German university. Qualitative data in the form of interviews and documents revealed that the factors are not able to fully explain the outcomes. New factors were found in which the incorporation of policy suggestions from environmental groups is dependent on the *willingness of the university leadership*. This factor is present under two conditions: Either when there is a high *level of personal interest* in environmental sustainability of the leadership or a high *level of green marketing*, the advertisement of the university as being environmentally sustainable to attract more funding and students. Other factors are the *level of coordination*, the importance of efficient organizing skills to incorporate policy suggestions. In general, the research shows the significance of the institutional context that drives the influence of environmental student groups toward the university leadership in their implementation of environmentally sustainable measures.

**Key words:** Environmental student groups, German university, Dutch university, university leadership, higher education

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# 1. Introduction

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Environmental awareness continues to grow among the youth. One form in which the youth works toward solutions for these issues is via environmental student groups in higher education institutions. This entails “a collective public expression of ideas by students aimed at creating politically pertinent public debate” (Luescher, 2015, p. 300) on environmental issues. However, these groups differ within the initiatives they implement ranging from organizing campus cleanups with other students toward working together with the university on environmentally sustainable policies. They seek to bring “about significant (moderate, radical or even revolutionary) socio-cultural and political change” inside or outside their respective university (p. 300).

The studies of Altbach (1989) and Luescher (2015, 2018) provide a comprehensive theoretical framework to study student groups. Within their research, they established a number of associations between specific factors and outcomes. It includes inter alia the expectations that the viability of the student group depends on the factors of 1) the level of regulation, while the level of interest in environmental groups is dependent on 2) specific types of universities such as a classical and technical type. Moreover, 3) tuition payments and 4) the student size of a university have an impact on student groups to be successful toward influencing the university leadership to implement environmentally sustainable policies. Besides, the 5) different initiatives the group implements have an effect on the decision-making process of the university (Helferty & Clarke, 2009).

Since the framework of these scholars focuses on student groups in general, the aim of this research is to test whether the expectations can be applied to the specific type of environmental student groups. It is approached with a comparative-two case study. The two cases are a Dutch student group from the University of Twente in the Netherlands and a German student group from the University of Münster in Germany. Both student groups are contrasting as they differ within all the factors mentioned before. To anonymize the data, the two groups will be named the Dutch and the German student group.

The next section will give a more profound elaboration on the expectations that will be tested in this study.

## 1.1 The expectations

### 1) The level of regulation and the viability of the student group

According to this theory, the level of regulation of a university has an effect on the viability of the group. A highly regulated student life implies that their schedules are fixed and that there is not much leeway. In this regard, the more regulated the student life is, the fewer time students can devote to student groups at universities. In contrast, within a less regulated student life, students can more easily take a gap year, extend their study, study in their own pace or even be a permanent student (a student who studies for an extraordinarily long time) (Luescher, 2015, p. 304). Both universities are different in this regard. In contrast to the German university, the Dutch university, for example, retrieves tuition fees from their students. Tuition payments make the student life more regulated due to increased pressure to finish their study on time. This makes it more difficult to organize and maintain a student group. Therefore, it is expected that the viability of a student group is lower at the Dutch university than at the German university. This is because, due to no tuition fees at the latter, it makes it easier for students to extend their study. This gives them more time for participation in a student group.

### 2) The type of university: Technical and classical universities and the level of interest in environmental student groups

The type of university, in this case, consists of two dimensions: Technical and classical universities. A classical university is one that is not specialized and offers a broad range of programmes such as medicine, law and natural sciences. It implies that classical universities have more students interested in student groups than technical-oriented universities. This is because classical universities have a larger number of social science students than technical ones. Social science students focus in their program on social problems and the society which produces a rather critical and radical view (Altbach, 1989, p. 103). Besides, students within this field have more free time than in more regulated studies such as engineering (Altbach, 1989). The Dutch university is technical-oriented, while the German one is a classical type. Hence, students are expected to be less interested in environmental student groups at the Dutch university than students at the German university.

### 3) The tuition payments and the level of responsiveness

According to Weiler (2000), tuition payments increase the level of responsiveness of universities to react to policy recommendations of student groups. Responsiveness implies the ability of a university to react quickly toward suggestions by students or student groups. If there are specific channels available for groups to deliver suggestions, it facilitates and increases the level of responsiveness of the university. Tuition fees provide additional financial resources to be able to react to the suggestions of student groups (p. 336). This is because they have more money at disposal which makes it easier to install channels for students to deliver policy recommendation. This increases the level of responsiveness. Due to tuition fees at the Dutch university, it is expected that the Dutch university has a higher level of responsiveness toward student groups than the German university.

### 4) The student size of universities and the level of responsiveness

Another factor mentioned by Altbach (1989) is the student size of a university which means that a larger student population makes it more difficult to react to the student group's policy suggestions. A larger university also has more staff which makes it more difficult to respond to the students. This is due to different opinions that collide with different priorities. Thus, it decreases the ability to incorporate all concerns into their decision-making. For fewer people, it is easier to make decisions since they usually can make decisions faster. Since the Dutch university (10,000 students) is smaller than the German one (40,000 students), it is expected that the Dutch university has a higher level of responsiveness.

### 5) The level of engagement of the student group and the decision-making process

According to Helferty and Clarke (2009), the influence of student groups toward the university leadership implementing the group's policy recommendations depends on the level of engagement of the student group. The level of engagement of a student group is measured by the initiatives the group implements. These different initiatives can be categorized into three levels of engagement: Power (high), influence (middle) and socialization (low). A low level of engagement such as recycling activities has no effect on the decision-making process,

while a high level such as a policy development of the group together with the university does have an influence. The three different levels further have different stakeholders involved. The initiatives with a power and influence level, for example, have a stronger influence on the decision-making. This is because they are usually more institutionalized and work together with on-campus stakeholders such as policy development initiatives. While socialization initiatives require relatively less support from on-campus stakeholders and focus more on initiating behavioral change among the student and staff. To summarize, the ideas of the student groups explain the effect on the university leadership in implementing environmentally sustainable measures or policies.

Both groups are different because they do different initiatives. The German group primarily implements influence initiatives. An example of this is that they influenced the university to disinvest in fossil energy. In contrast, the Dutch group mostly implements socialization initiatives. Since the German group has a higher level of engagement, the group is expected to have a higher influence on the decision-making process of the university.

## 1.2 Research questions

It is important to understand how the two groups are perceived to affect their respective university to implement environmentally sustainable policies.

The study then aims to answer the following main research question:

*How can differences be explained, between a German and a Dutch university, with respect to the influence of environmental student groups on environmentally sustainable policies of their university?*

First of all, it is expected that the level of regulation has an effect on the viability of the student group. Moreover, it is presumed that the two types of universities differ within their effect on the level of interest of students in environmental groups at the university. This leads to the first two sub-questions:

*1. How does the 1) the level of regulation affects the viability of environmental student groups?*



*2. How does the 2) the type of university affects the level of interest of students in environmental student groups?*

It is expected that tuition payments and the student size of universities have an effect on universities to react to policy suggestions made by environmental student groups. This leads to the next sub-question:

*3. How do the factors such as 3) the tuition payments and 4) the student size of universities affect the level of responsiveness of universities toward environmental student groups?*

The last part consists of understanding the influence of the level of engagement on the decision-making process of the university. Firstly, it is important to find out what initiatives the group predominantly implements such as campus cleanups, etc. Afterward, the initiatives can be differentiated into three levels: Socialisation, influence, and power. The level of these initiatives (level of engagement) is expected to have an effect on the decision-making process of the university to implement environmentally sustainable policies. This leads to the last sub-questions:

*4. What are the differences in the 5) level of engagement of environmental student groups?*

*5. What is the effect of the 5) level of engagement of environmental student groups toward the decision-making process of the university on implementing environmentally sustainable measures?*

### 1.3 Scientific relevance

As the current youth generation is an important contributor to the future of environmental policies, it is significant to receive an in-depth understanding of this phenomenon. However, the current state of research still focuses on Altbach's (1989) theories of student activism as Luescher (2015) argued that they are still valid (p. 46). However, their studies do not focus on a specific type of student activist groups, especially not on the specific type of environmental student groups. Hence, very little is known about whether the factors mentioned before are suitable for environmental student groups. Therefore, the focus within this thesis lies on understanding differences in the expression between two environmental

student groups from a Dutch and German university. A comparative case study with the utilization of two contrasting cases is a new approach to this topic. This is because no scholar focused on a difference of expression between two student groups from two different countries with a different institutional environment. The goal of this study is to enhance the scientific understanding of this phenomenon by building upon existing research and by filling a gap in the literature of the specific type of environmental student groups. It, therefore, expands the scientific knowledge of this contemporary social phenomenon. With a qualitative approach in the form of semi-structured interviews and documents, the objective is not to generalize the findings toward past and future groups. However, to gain an in-depth understanding of how these factors affect environmental student groups in their viability, level of interest of other students and on their influence toward the decision-making process of the university.

#### 1.4 Societal relevance

Focusing on the effectiveness of the group to influence the decision-making process of the university is important for the university itself. Especially since environmental sustainability in universities is a relatively new concept and understanding the behavior that drives sustainability would have an influence on incorporating it more suitable into the political sphere of the university. This is because it could incorporate student activists better into the university governance which would decrease the number of confrontations with student activist groups. By making this culture more visible it can help universities to achieve their sustainable aspirations (Adams et al., 2018, p. 16). The cultural dimension is important, which implies that for a university to become a role model for sustainability in technical, cognitive and cultural aspects it has to change its organizational culture as well, implying the development of a new set of attitudes, values, and behavior (p. 5). Hence, the development of an in-depth understanding of the drivers and barriers of the relationship between environmental student groups and the university leadership gives universities the opportunity to react more appropriately toward them. Knowing more about the characteristics, drivers and effects of these groups further are helpful for other environmental groups to take a better approach toward their interventions and activities (Fung & Adams, 2017, p. 1).

## 1.5 Outline

Following the introduction section, the next chapter provides a theoretical background on the elaboration of the factors mentioned in the introduction while developing expectations that will be tested within chapter 5. Afterward, the research design, the case selection, the data collection method, and the measurement will be explained. Chapter 4 will start with some background information about both student groups. This information is helpful for chapter 5 in which it will be analyzed whether the expectations developed in chapter 2 can be applied toward both groups or whether there are other factors at play. The thesis ends with a general conclusion, followed by the research's limitations and recommendations for the future.

## 2. Theoretical framework

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In order to answer the central research question, the first two sections of this chapter clarify the concept of environmental student groups while afterward conceptualizing the level of responsiveness. It is followed by a graphical model including all expectations that will be tested within this paper, which are described afterward.

### 2.1 Environmental student groups

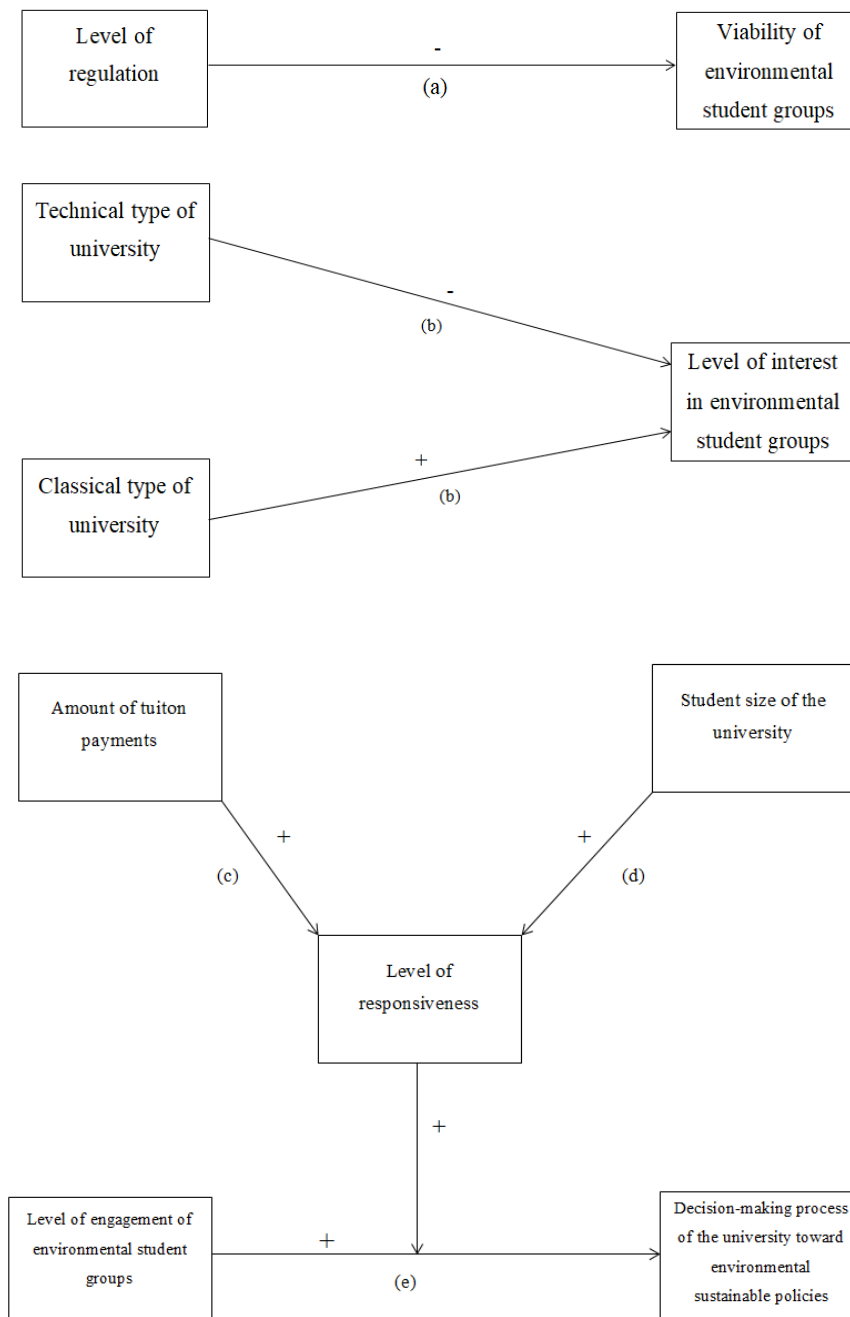
In general, there are different types of student activism such as student movements, student protests, and student groups; however, movements and protests are not in the scope of the thesis. They are different in their characteristics as within movements there is not a formal membership, but student groups consist of voluntary membership and are recognized and related to the university (Luescher, 2015, p. 37). In general, environmental student groups entail “a collective public expression of ideas by students aimed at creating politically pertinent public debate” on environmentally sustainable issues. They seek to bring “about significant (moderate, radical or even revolutionary) socio-cultural and political change” (Luescher, 2015, p. 300). They either focus on generating change at mainly their university, outside or both (p. 300).

## 2.2 Level of responsiveness

Luescher (2015) noted that at the university level “the institutional response to protest ... has sometimes obtained some of the changes demanded by students” (p. 44). A student group, in order to successfully implement their policies, has to be able to influence the decision-making process of its respective university. This is due to the fact that “the effectiveness of student activism is not so much determined by factors directly related to the issues raised by students or the type of activism employed” but rather on the influence on the decision-making process (Luescher, 2015, p. 44). However, the influence of the student group toward the decision-making process is dependent on the responsiveness of the university (Luescher, 2015, p. 44). Responsiveness implies the ability of a university to react quickly toward policy recommendations of student groups. If there are specific channels available such as an email contact for groups to deliver suggestions, it facilitates and increases the level of responsiveness of the university. The effect of these groups is, therefore, best studied when focusing on the responsiveness. It is often difficult for universities to deal with student activism as the decision-making within universities is often slow which stimulates further activism (Altbach, 1989, p. 101). There are basically four types of responses possible for universities: Ignorance, engagement, negotiation or repression of student activism (p. 44). A lack of such channels for cooperation between the university and students might lead to a rise in more confrontations with student groups (p. 45). This implies that the response of a university to student activism is a factor for determining the future of student activism in a university. Hence the pattern of response will determine “the nature of future activism and ... [the] student political culture” (Luescher, 2018, p. 311). Therefore, in order to be responsive “the establishment of formal structures for communicating and negotiating” (p. 311) with student activists is important for authorities within the university in order to reduce radical student activism. The universities are a very significant key player within the effectiveness of student activist policies. They further, throughout their orientations and politics effect these organizations and are affected themselves by activism. Hence, it is important for “academic authorities to understand nature and causes of student politics“ (Altbach, 1989, p. 108) in order to react appropriately and to hinder the rise of too much confrontation with the students (p. 108).

## 2.3 Explanatory Model

This model gives an overview of the factors involved that influence the outcomes of the viability of the student group, level of interest, level of responsiveness and the influence toward the decision-making process of the university leadership. The effects will be explained within the upcoming sections.



*Figure 1: Explanatory model*

## 2.4 Expectation 1: The effect of the level of regulation toward the viability of the student group

There are several conditions enabling and disabling student activism which “vary across different kinds of (national) higher education systems” (Luescher, 2018, p. 303). Generally, the conditions for its emergence include the structure of universities which has an effect on the students thinking which creates a vision for change and makes them more oppositional and idealist. The academic structure on one hand permits and on the other hand prevents students to be activists. The student life further enables students to have more free time and to organize their activities at their own tempo. Additionally, it leads to constraints for engaging in activism since for example examination periods make it rather difficult to engage in student activism. Another point here is that “the transient nature of students and rapid turnover of student leadership ... has [a] powerful impact on student activism” in which the student groups “tend to be fast to emerge, difficult to sustain, short-lived and sporadic” (Luescher, 2018, p. 304). This is due to the fact that a student is not studying for a long time but rather merely for a couple of years (Luescher, 2015, p. 43). However, compared to for example the Anglo-American system, students in the rather laissez-faire European system have a less regulated study life in which they can more easily take a gap year, extend their study, study in their own pace or be a so-called permanent student (p. 304), students who are enrolled in a university for an extraordinarily long time. However, even though the European system might be more laissez-faire, the pressure to pass examinations and to complete their study might lead students to be less likely to be active (Altbach, 1989, p. 99).

The expectation here is that when the academic life of a student is less regulated within a university, the more likely it is that student activist groups will emerge and “be sustained across several student generations, with traditions of activism developed and maintained” (Luescher, 2015, p. 40). In contrast to the German university, the Dutch university retrieves tuition fees from its student. This makes the Dutch student life more regulated since it becomes costly to extend the study which leads to the pressure of completing their study in the predefined time frame. Hence, in regard to this expectation, for the German student group, it might be easier to be maintained than for the Dutch group. This is because, due to no tuition fees at the German university, it is less cost-intensive to extend their study. Moreover, statistics show that at German universities in 2017 38.5 % were able to finish their

Bachelor study within the standard study period, and merely 27 % in the Master (Anzahl der Absolventen, 2018). The extensions for the standard period are due to the conditions at German universities including that obligatory courses take place at the same time, a low number of repetition of an examination or overcrowded courses and tutorials (Penthin, Fritzsche & Kröner, 2017, p. 12). Further reasons include the situation of the student itself such as the importance of part-time work to finance the program and the motivation or skills of the student. It is also common at German universities to extend the standard period due to the activism of the student outside or inside the university in associations (p. 13).

Another factor for the intense regulation of the Dutch university is that they included the so-called Twente Education Model a couple of years ago (The Twente Education Model, 2017). This model has been associated with increased pressure toward the student. This is due to inter alia the importance of receiving at least 45 ECTS credit out of 60 ECTS within a year in order to be able to pursue one's study and to get into the next year. Another factor is that there is only one possibility of retaking an exam or assignment per module. As they state on their website, people were concerned that it would have negative effects on students being active in participating in student organizations and other campus activities. This is because "their schedule is often too fixed" (p. 9). If students would have more options to make their own schedule, they could plan their time differently. In contrary, in German universities, the students are able to make their own schedule. This makes it easier to take less time for their program and focus more on maintaining the student group, leading to the first expectation:

*Expectation 1: A higher level of regulation at universities decreases the viability of environmental student groups (Effect (a) in the explanatory model).*

## 2.5 Expectation 2: The effect of the type of university (technical and classical type) toward the level of interest of students in environmental student groups

Students tend to be more active when their study program is within the social sciences area since these programs focus on social problems and the society which produces rather critical and radical views. Moreover, professors within this field tend to have rather critical views toward society and politics "than the academic profession in general, and these critical views may also affect students" (Altbach, 1989, p. 103). In general, the social science field broadly

includes study programs such as anthropology, communication, economics, education, political science, history, law, linguistics, psychology, and sociology, etc.

In other more regulated studies such as applied and professional fields for instance engineering, students tend to have less time which makes it more difficult for them to become more involved within student politics. “The more vocationally or professionally oriented the institution,” (for example when the university is more technically oriented), “the less likely are student [groups] to emerge from within it” (Luescher, 2015, p. 41).

Since the Dutch university is a technical university, implying a strong focus toward technical studies such as engineering, it is presumed that students tend to be less environmentally conscious. Therefore, it is expected that the Dutch university has fewer students interested in environmental student groups and fewer students participating in such groups. The German university represents a classical model of a university because it offers a broad range of study programs such as medicine, natural sciences and a vast number of social science programs. Hence, since the German university offers a broader range of social science programs than the Dutch university, it is expected to have more students interested in environmental student groups.

*Expectation 2: Technical universities have fewer students interested in environmental student groups than classical universities (Effect (b) in the explanatory model).*

## 2.6 Expectation 3: The effect of tuition payments toward the level of responsiveness

There is an effect of the tuition fees in regard to the responsiveness of a university. Weiler (2000) found that universities which receive tuition fees from their students tend to be more responsive to their needs and interests since they contribute to the financial well-being of the university (p. 336). It allows responding to the groups in a faster way and it helps to install channels for the students to deliver policy recommendations such as specific websites or email contacts. Moreover, it increases the likelihood of implementing the group's recommendations.



In contrast to the German university, the Dutch university retrieves tuition fees creating the expectation to be responsiveness toward their students. However, even though the theory suggests that tuition payments make it easier for universities to respond to student groups; tuition payments do not automatically imply that the university has enough money at disposal to install such policy channels.

*Expectation 3: Universities that retrieve tuition fees from their students have a higher level of responsiveness toward environmental student groups than tuition-free universities (Effect (c) in the explanatory model).*

## 2.7 Expectation 4: The effect of the student size of the university toward the level of responsiveness

In order for a group to be successful, the characteristics of the university itself are important including its size, prestige, location and the type. Universities with a larger student size have rather heterogeneous societies which make it difficult for the university to respond to all their students and groups (Luescher, 2018, p. 304). A heterogeneous student society includes various views and backgrounds among the whole student population. Thus, different opinions collide with different priorities which make it difficult for the university to incorporate all concerns of students and staff into their decision-making process. Furthermore, it is argued that universities nowadays install many administrative positions which increases the bureaucracy (p. 305). This decreases the response of the university leadership toward students and student groups especially due to a lot of university staff.

The German university has a student size of about 40,000 while the Dutch university only has around 10,000 students. Therefore, based on this expectation the German university might have a lower level of responsiveness toward the student group than the Dutch one.

*Expectation 4: A larger student size at universities leads to a decrease in the level of responsiveness toward environmental student groups (Effect (d) in the explanatory model).*

## 2.8 Expectation 5: The effect of the level of engagement toward the decision-making process of the university

In order to gain support from other students outside of the student group, the ideas of the group are important in order to be successful. In general, student groups use means such as “publications, public speaking, campaigns, the use of mass media, etc.” (Luescher, 2018, p. 307) as well as protests, marches or demonstrations. It is when “they struck a key nerve in the consciousness of the student generation” (p. 307) which keeps the organization alive and will help to gain support (p. 307). Hence, the appeal and the tactics they use are important in order to successfully influence the university in implementing environmentally sustainable measures. According to Helferty and Clarke (2009), student-led climate actions can be divided into nine types: “Awareness-raising; sustainability assessments and/or [greenhouse gas] inventories; sustainability funds; residence challenges; on-campus retrofits or renewable energy production on campuses; multi-sectoral collaborations; staff/faculty-focused programs; and policy development” (pp. 289-290). According to both authors the nine initiatives of the student group can further be divided into three specific levels of engagement: Power (high), influence (middle), socialization (low) (p. 296). The level of engagement determines the influence of the group toward the university leadership. Socialization initiatives, for instance, aim for behavioral change among the students throughout group involvement by organizing social events (p. 288) but these initiatives are not necessarily aimed at influencing the university to adopt more sustainable measures. On the contrary, there are initiatives that aim to influence the decision-making process by protest or by “being a representative in decision-making bodies or having a youth advisory body” (p. 288). Compared to socialization initiatives, there is a stronger focus on influencing the university leadership. The influencing initiatives further differ from the power level since the latter implies initiatives with a collaboration with the leadership. The difference between the power and influence level is that within the power level there is an equal representation of both students and staff. The power and influence initiatives require more support as they aim at working together with many on-campus stakeholders. Socialization initiatives require relatively less support from on-campus stakeholders and further focus on gaining support from the students (p. 296). On the contrary, the other two levels focus on gaining support from administrative staff.

Hence, the initiatives the group's implement have an impact on the decision-making process of the university adopting sustainable policies. Student groups usually do not focus on only one level of initiatives but often times they are sub-divided into smaller groups in which one sub-group organizes for example campus cleanups and green weeks, while another sub-group consults the administration of the university about for example an energy policy.

*Table 1: Level of engagement in student-led environment initiatives (Helferty & Clarke, 2009)*

Level of Engagement	Type of initiative	Example
Socialisation	Awareness raising	General awareness, green weeks, campus-cleanups, recycling activities
	Sustainability Assessments	Assessment of university instigated by students
	Residence challenges	Competition between student houses to be the most sustainable one
Influence	Sustainability Assessments	Student association is coordinating the assessment, implementing changes within the student association to exert pressure on the administration to do the same
	Residence challenges	Competition between student houses with pressuring facility management to install energy metering on each residence
	Retrofits/ energy production	Construction of small wind turbines
	Policy development	University administration is developing an energy policy and consults the student association
Power	Assessments	Assessment is run through a well-

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	established student club with a multi-stakeholder committee providing consultation
Sustainability funds	Generating funds for student-led climate projects jointly administered by the university and the group
Retrofits/ energy production	Wind turbine or solar array initiated, funded and installed on campus by students with a partnership with facilities management, a department and/or a course to provide ongoing monitoring, and maintenance
Multisectoral or multi-stakeholder collaboration	Collaboration toward a specific environmental topic between student groups, non-governmental organisations, the government and universities
Staff/faculty programs	Educate staff and faculty in terms of reducing consumption (office audits)
Policy development	Policy is developed by a multi-stakeholder decision-making body with equal student and administrative representation

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This table gives an overview of the initiatives and in which level of engagement these initiatives can be categorized including examples. This table is helpful for the analysis later on, in order to be able to distinguish the activities initiated by the student group regarding the level of engagement. It is important to understand the effect of the level of engagement of the group on influencing the university to implement environmentally sustainable measures.

Concluding, power level initiatives work together with the university leadership with an equal representation of students and staff. Thus, it is of a higher level of student-engagement and has, therefore, more influence toward the decision-making process than the influence level and even more than the socialization level.

This leads to a last expectation:

*Expectation 5: The higher the level of engagement of environmental student groups, the higher the influence toward the decision-making process of the university to implement environmentally sustainable policies (Effect (e) in the explanatory model).*

### **3. Methodology**

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This section includes the research design, a justification for the two selected cases, the data used and the operationalization of the factors by furthermore, assessing the risks involved with these methods.

#### **3.1 Research Design**

This comparative two-case study was approached with the causal-process tracing (CPT) method introduced by Blatter and Haverland (2012) which is a useful method when the sample size is small to see whether results are in consistency with the theory. Thus, it grants the possibility to test whether the factors found in the literature work for environmental student groups in two contrasting institutional contexts. This method is used since there are “a plurality of causal factors [that] work together to create an outcome” (p. 81) in which for example the level of responsiveness toward student groups, as noted within chapter 2, is not merely based on one factor but several such as tuition payments and the student size. By tracing the process, revealing and evaluating the effect of a cause, it increases the “internal validity of a causal inference by identifying links” (Blatter & Haverland, 2012, p. 88). The topic is approached by qualitative methods in form of interviews and documents in order to evaluate the student group’s experiences, perceptions and motivations for being active as well as its effect on environmentally sustainable policies at universities. This is because “each organizational culture is unique and only qualitative methods can fully account for this uniqueness” (Adams et al., 2018, p. 9).

First of all, it is important to create a comprehensive storyline, by describing “the most important steps that have led to an outcome” (Blatter & Haverland, 2012, p. 111) to find out the turning points that led to a specific outcome which is used as “evidence for or against” an expectation (p. 112). It further aims to find out the so-called smoking-guns, the most

important factors included as well as the confessions. With confessions, one has to deal with cautiousness since the interviewees sometimes “justify their decisions by arguing that they pursued a specific goal, but in reality, the behavior was much less reflective and strategically oriented” (p. 118). Therefore, one has to be aware of the biases of the statements of the actors involved when interpreting them. This is because data obtained via interviews is strongly dependent on opinions and perceptions. However, to counter this problem, statements or the so-called confessions are always critically reflected and connected with different sources as well as with regard to the theory. This increases the validity of the study.

Realistic Evaluation was further used to complement the CPT-approach. Both approaches are different from the classical models which focus on a linear relationship. Developed by Pawson and Tilley (1997), in Realistic Evaluation, an outcome is only achieved when mechanisms are at a place in a specific condition (p. 57). It implies that for instance the mechanisms of the university interacting with environmental student groups is only triggered when specific conditions are present such as a low student size. Realistic Evaluation is especially useful when comparing different contexts such as the different institutional contexts of the German and Dutch university. The aim is to find out to what extent the different factors described before, trigger the outcomes of the level of interest in environmental groups, the viability of the group, the level of responsiveness and the implementation of the student group's recommendations by the university leadership (Pawson & Tilley, 1997, p. 58). Realistic Evaluation and CPT are both helpful to find out if the expectations derived from the literature are able to provide useful insights.

In general, case studies are a flexible method which grants the researcher the opportunity to get an in-depth understanding compared to studies with a larger sample size. Case studies negatively affect external validity; however, with their qualitative character, they deliver an advantage over quantitative approaches since they help to unveil the events actual mechanisms due to a real-life context. This is because indicators are selected in a rather reflective and differentiative manner compared to studies with a large sample size where the indicators are rather constant (Blatter & Haverland, 2012, p. 98). Furthermore, by “increasing the number of cases, ... the possibility and probability of finding sufficient empirical evidence [is reduced]” (p. 100). A small sample size, therefore, provides “a convincing narrative and explanation for each individual case” (p. 100). This contextual information

further enhances the conceptual validity of the measurement since it leads to a comprehensive storyline (p. 98).

In the end, all observations made within the thesis are connected “and together, the full cluster of observations can be used” to understand if the expectations can be applied to the two environmental student groups (Blatter & Haverland, p. 115). The aim is not to generalize the results but rather to improve the understanding of how the factors are perceived to affect environmental student groups in two particular universities and to understand differences. In the end, one is able to “yield very useful insights to grasp this specific phenomenon [and] to understand their deeper mechanisms” (Berg-Schlosser, De Meur, Rihoux & Ragin, 2009, p. 10).

### 3.2 Case selection and sampling

The units of analysis within this study are two environmental student groups, one from a German and the other from a Dutch university. Only two groups were chosen since it was more important to develop an in-depth understanding rather than to focus on generalizing assumptions about environmental student groups when choosing a larger sample size. Both groups were specifically chosen as they can be categorized as two contrasting cases since both come from a different institutional context as they differ strongly within their institutional characteristics. The factors mentioned before are contrasting from one university to the other. For example, in regard to the level of regulation, the Dutch university is stronger regulated than the German university. Moreover, the Dutch university is a technology-oriented university, highly specialized within engineering studies. On the contrary, the German university offers a broader variety of studies like social, religious, sport to even medicine studies, and has a higher number of students (40000) compared to the around 10,000 of the Dutch one. Also, the Dutch university retrieves tuition fees while the German university does not. Moreover, both student groups express their ideas differently since they implement different initiatives and have therefore a different level of engagement.

Both groups were chosen via the convenience sampling method due to accessibility, proximity to the researcher and time constraints. Hence for both groups, there was sufficient

information available due to interview possibilities and a number of documents to study both groups in-depth in order to be able to make a comparison (Ralph & Stubbs, 2013, p. 75).

### 3.3 Data collection

The data used to test the expectations consisted of mainly qualitative data in the form of documents and semi-structured interviews. Three interviews were conducted which brought the advantage to adapt the questions toward the need of the study. One interview was conducted with two members from the German student group. Another interview was with a member of the Dutch student group. Interviewing both groups gave an understanding of the perceived effect of the factors. Next, an interview was conducted with an environment and sustainability policy officer at the Dutch university in order to understand the level of responsiveness of the university toward these groups. Conducting interviews with a university staff member and a member of the student group offered the advantage of understanding differences and similarities in their opinions and perceptions. This is because humans have different views depending on their situation and where they stand which can lead to biases in their opinions. Hence, this choice was made to find and understand contrasting views and to weigh them with the theory. Unfortunately, at the German university, there was no possibility to interview a specific authority. However, the interview with the German group gave sufficient insight.

Reliability was assured due to inter alia the avoidance of giving personal opinions within interviews as well as keeping interview questions as neutral as possible. Moreover, interviews deliver the advantage of creating greater validity since the interviews were gathered for the specific aim of the study and can be adapted to the need of the research. Semi-structured interviews are especially helpful as they offer the opportunity to follow-up on questions “as they emerge during and after the interviews” (Fung & Adams, 2017, p. 4). The interviews were audio-recorded and anonymized.

Furthermore, documents were used such as flyers, information on their websites, digital newspapers, social media networks of both groups and the election program of the German student group. In general, documents deliver many benefits including an efficient and effective way to collect data due to their easy accessibility. Other advantages include the lack



of obtrusiveness. Most importantly is that it does not include the reactivity and reflexivity problem which is a demerit of interviews. The documents were helpful to receive background information of both groups which was important for the analysis and to receive missing information that could not have been retrieved from the interviews. It further gave the advantage to verify statements made in the interviews, even though that was not always possible due to missing documents. Methodological triangulation served “as a way to verify findings or corroborate evidence from” the interviews and documents (Bowen, 2009, p. 30). This “reduce[d] the impact of potential biases that can exist in a single study” (p. 28). This further increased the validity of the results.

### 3.4 Operationalization

To test the expectations and to assure the replicability of the study, a coding scheme was created before and after the interviews were conducted (see Appendix B). The following sections will show how the different factors were measured based on the interviews and documents. The factor was measured first, followed by the effect.

#### 3.4.1 The level of regulation

In order to measure the level of regulation and its effect on the viability of the group, two interviews were conducted with one member of the Dutch and two members of the German student group. Measuring this factor was two-folded: Firstly, to understand if the interviewees perceive the student life at their university as being strongly regulated or not. Secondly, whether they perceive this to have an effect on the ability to maintain their group. The questions were formulated as followed:

*“Do you feel like that the study life here is rather strongly regulated or not? Is it rather easy or rather difficult to extend the study?”*

This first question helped to understand how regulated the student life is perceived to be at both universities. Next, a focus was made on whether this hinders the group in their expression with the following question: *Do you think that this hinders to sustain the group or not?*

Together, the questions helped to understand the effect of the level of regulation toward the

viability of the group in order to understand whether expectation one can be applied toward both groups.

### 3.4.2 The type of university: Technical and classical type

In order to measure whether the orientation of a university has an effect on the level of interest of students in environmental groups at the university, two questions were formulated. First of all, it was important to know what programs the group members are studying. This was measured via the following question: *What types of studies do the group members do?* The second question focussed on a pattern of which studies are represented the most: *What do you think is like the main faculty that is represented, more like natural sciences, technology or social sciences?*

This gave the ability to test the second expectation of whether technical universities attract fewer students being interested in environmental groups than classical universities. A similar question was asked to the environmental policy advisor in order to measure this factor from a different position namely: *This university is rather technology-oriented: Do you think that this rather hinders or facilitates students to be active with environmental sustainability?*

### 3.4.3 The level of responsiveness

In order to measure the level of responsiveness, it was important to find out whether there are any channels available for students to deliver policy recommendations. This was done via an interview with an environmental and sustainable policy officer at the Dutch university. The following questions were asked: *Is it possible for student groups or individuals to participate somehow in the policy-process of the university to shape sustainable policies? And: Where can they deliver recommendations?*

This gave more insight into how responsive the university is toward their students and what channels are available for the students to deliver policy recommendations to the university leadership. This was important since the ability of the student group to influence the university leadership is dependent on the level of responsiveness of the university.

Due to no interview with an authority from the German university, the interview questions were forwarded to the German group.

### 3.4.4 Amount of tuition payments

In order to find out the effect of the tuition payments toward the level of responsiveness, a question was asked to the environmental policy officer at the Dutch university. One problem here is that an incorrect measurement was done. This is because the factor of financial means of the university was measured and not tuition payments. Nevertheless, the main point with expectation three is to find out how financial resources affect the level of responsiveness of the university toward the student group. It is, therefore, not a major limitation.

*Do you think that the financial means the university has is sufficient enough to be able to respond toward what the students want?*

Since no authority was able to participate in an interview at the German university, the question was forwarded to the German student group.

### 3.4.5 Student size of the university

It was expected that the student size has an effect on the level of responsiveness of a university. To measure this, the following question was asked to the environmental policy officer at the Dutch university:

*Do you think that at bigger or smaller universities it is easier to respond to students and student groups? Do you think that the size of the university has an effect on the responsiveness?*

Due to no interview possibility with an authority at the German university, the question was forwarded to the German student group.

### 3.4.5 Level of engagement

First of all, it was important to find out what initiatives the two groups implement in order to determine the level of engagement. This information was retrieved via documents such as flyers, their official homepages, digital newspapers of the university, social media networks of both groups and an election program of the German student group. Furthermore, personal documents were used such as Instagram and Facebook posts and flyers. Additionally, both groups were asked questions about with which other stakeholders they are in contact with the

question of: *With what other actors or stakeholders are you in contact with inside or outside the university?*

This question helped to determine the level of engagement based on the stakeholders with whom they interact with. Afterward, both student groups were asked the following question: *Do you think that the group has an influence on the implementation of sustainable policies at universities?*

This question was specifically helpful to understand the effect of the level of engagement toward the university leadership in implementing environmentally sustainable measures.

## **4. Case Description**

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This chapter entails background information, structure, objectives and the accomplishments of both student groups. The information was retrieved from the interviews and documents to understand the motivations and perceptions of the actions of the two student groups. This information was further important to test the expectations afterward.

### **4.1 The German student group**

#### **Background information**

The student group was established in 2009 and consists of around 55 members, while about 20 until 30 are actually active (German student group, personal communication, May 25, 2019). The group is part of an umbrella organization in which several similar student groups exist within many German universities. The umbrella organization is close to the green political party of Germany but, regarding their statute, the student group can act independently from this party (Bundesverband, n.d.).

#### **Structure**

The student group is a part of the Allgemeiner Studierendenausschuss (general students committee (ASTA)). In general, the ASTA is the representative of all students at the university. The ASTA retrieves its democratic legitimation throughout the elections, which take place once a year, in which the students can vote through the Studierendenparlament (student's parliament). In this election, there are several university-related political groups such as the Liberal group, the Christian Democratic group and the German student group who compete against each other. The ASTA in itself consists of several autonomous consultancies

such as the diversity consultancy and the sustainability consultancy (Wie funktioniert Hochschulpolitik, n.d.). When the group gets elected, two members of the German student group will be placed into the ASTA sustainability consultancy. Within this consultancy, they have different tasks than the members of the student group itself. The student group itself puts a strong focus on making advertisements for their group and to receive more voters for the next university elections to get elected into the ASTA. While the sustainability consultancy serves as a contact for students to take in suggestions for the university or to help them establish environmental sustainable projects such as a student garden. As the German student group said within the interview, it is like the student group is the political party and the sustainability consultancy of the ASTA is the Ministry of Environment (German group, personal communication, May 25, 2019).

## Objectives

Retrieved from their election program, the student group's objectives are not limited to issues of the environment and sustainability but to also achieve inter alia gender equality, more payable housing for all students and no tuition fees for foreigners, etc. Further, they do not merely focus on issues in the university, but they also arrange actions in the city of Münster. Their policy objectives include the aim for photovoltaic on the roofs of the university, minimization of the use of paper, more vegan and vegetarian food in the cafeteria and bistros at the university, labeling of ingredients, more water dispenser, more sustainable cups in coffee vending machines, more healthy and diverse food in vending machines and fairer working conditions for the staff at the university. Other goals include bicycle pumps in all institutions, expansion of bicycle service points, more places for bicycle rents, more places to park the bike and a general university concept for bikes. Moreover, the group aims for the establishment of a studentisches Prorektorat (students prorektor council). This would grant them influence in the decision-making process of the university and they would be closer to the Rektor (President) (Wahlen 2018, 2018).

## Accomplishments

The student group already achieved some of their goals including convincing the university to disengage in the investment in fossil energy. The university became herewith the first university in Germany to disinvest in fossil energy. Moreover, they enforced a supply of regional, biological, vegan and vegetarian products in the cafeteria of the university (Was wir

bisher erreicht haben, n.d.)

## 4.2 The Dutch student group

### Background information

The Dutch student group is, in contrast to the ten-year-old German group, a recent one just established in 2018. It consists of approximately 30 until 40 members (Dutch student group, personal communication, June 6, 2019).

### Structure

In contrast to the German group, the Dutch group is not a political group. It is divided within sub-committees each focusing on the implementation of different activities around a specific topic in the frame of environmental sustainability. One committee is the sustainable week committee which is responsible for organizing a Green week in October 2019. Another committee is the internal events committee which has the task of organizing events frequently. There is also the consultancy committee which is responsible for assessing the sustainability of student associations, restaurants, and other organizations at the university. It then aims to encourage and assist them in improvements. A similar one is the external events committee assessing the sustainability of events of the university. Another committee is the marketing committee which is responsible for the spreading of awareness via for example social media (see Appendix D).

### Objectives

The group was created by students due to many decentralized environmental initiatives that took place at the university. Hence, they decided to collectively start this group in order to serve as a centralized point (Dutch student group, personal communication, June 6, 2019). The group states that they have two main goals: Awareness raising and impact. The group raises awareness by informing people about how to separate trash and how to make food more sustainable etc. Their second objective is to influence the university to adopt environmentally sustainable policies. They do that for example within one of their student groups committees which is responsible for assessing student associations, events and the university as a whole to consult them and advise them on improvements. This is to make the activities of the university more environmentally sustainable (Nesvarova, 2018).

## Accomplishments

The group already achieved some of their influence goals as they established a working group in the Kick-in committee, the committee responsible for the introduction period for new students. The working group helps the committee to be more environmentally sustainable in their activities. However, the student group cannot just establish a working group without permission from the committee itself. This can only be done when a committee or a student association itself approaches the student group or if the student group offers its help and the committee or association agrees.

The student group further collaborates with the university staff such as the environmental and sustainable policy officer at the university in which they worked together on a business case for the establishment of a Green Office. A Green Office is a centralized department at a university that enables students and staff to work together on issues of environmental sustainability at universities. However, such a department has not been established yet (Environmental policy officer, personal communication, June 3, 2019).

## 5. Data analysis

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The observations derived from the interviews and documents were used to draw causal inferences on the factors that drive the viability of the group, the level of interest in environmental groups as well as the student groups effect toward sustainable policies at universities. The aim is not to generalize the results toward other environmental student groups but rather to improve the understanding of how the factors affect the outcomes.

### 5.1 The effect of the level of regulation toward the viability of the student group

*Expectation 1: A higher level of regulation at universities decreases the viability of environmental student groups.*

Based on the literature, it was hypothesized that a less regulated student life makes it easier for a student group to be viable. It was expected that the Dutch student life is stronger regulated than the German student life which leads to a lower ability to devote time to environmental student groups. This stems from inter alia the Twente Education Model which increases the pressure to pass examinations and to complete the study on time. It further leads to a decrease in time and willingness to join an environmental student group. This effect was

measured via interviews with the two student groups to understand how they perceive the student life to be regulated and whether that has an effect on maintaining the student group.

The interviewees from the German student group stated that even though there is a standard study period which is usually six semesters for most study programs, hardly any student finishes on time. One interviewee, who is currently following her Master's degree, stated that even her professor said that no student is able to finish their degree during the standard period. The interviewees state, that this results from the conditions at the university which are likewise a factor at other universities in Germany. It includes that there is no actual course of studies and that courses are often too full (German student group, personal communication, May 25, 2019). This implies that the student life is not strongly regulated. However, this depends on the study program because studying law or medicine leads to an increased pressure to finish on time due to the state examinations (German student group, personal communication, May 25, 2019).

However, independently of the less regulated system, the interviewees of the German group stated that it is not difficult to maintain their group because it is already strongly established within the political structure of the university. This is because they always receive a high electoral outcome each year which makes them able to be in the ASTA every year. They also said that the political groups that are in the ASTA are relatively stable. "No one really would think about dissolving the group and that is what bounds the people." Since they are a part of the university government, so to say, it would be in no one's interest to dissolve the group (German student group, personal communication, May 25, 2019). Therefore, it is not clear whether the student group is able to maintain their group due to the less regulated student life or because the group is already strongly established within the political system at their university.

The interviewee from the Dutch student group stated that the Twente Education Model is relatively intense due to a continuous loop of assignments and examinations. It is still possible to participate in extracurricular activities, but if a student wants to be strongly active, he has to extend his study. It implies that the student life is quite strongly regulated. The interviewee stated "that it is quite common with people who get active in an association [to] end up ... delaying courses or extending their study" (Dutch student group, personal communication, June 6, 2019). This can be underlined since some students at the Dutch



university participate in a so-called board year, where the students work for one year in a student association at the university, while not taking any courses. However, the student union, as the coordinator of all student groups, promotes student activism at the university so that students “gain different experiences and skills in addition to studying so that they can be critical“ (Importance of activism, n.d.). Hence, their role is to facilitate and promote student activism in all kinds, also sustainability. This promotion is done with board improvement programs, activism grants and activism markets (Activism Market, n.d.). This advertisement of activism has an effect on the student group since the interviewee said that developing the group was relatively easy at the Dutch university. When the student group created their association, they immediately received a strong amount of support, even from the teachers. Moreover, they received funding from the student union as well as board training (Dutch student group, personal communication, June 6, 2019).

Even though the interviewee perceives the new educational model as having an effect, he says that it does not hinder the group members on maintaining the group. He said that the new educational model was a negative factor at the beginning of developing the group because it was difficult to follow their study and simultaneously focus on the student group. However, he stated that the university is not unique in this case since it seems to be always difficult to participate in extracurricular activities next to the study (Dutch student group, personal communication, June 6, 2019).

It is not clear that due to the less regulation at the German university, it is easier for the group to be viable. This is because it is not certain if the reason behind their long-lasting existence is the low level of regulation or rather their strong establishment within the political structure of the university. Furthermore, it cannot be confirmed that a stronger regulated academic life makes it more difficult to maintain a student group at the Dutch university. This is because even though the Twente Education Model has an effect on the student groups viability, it does not hinder students to be active and become a member within a student group. This is because the presence of other factors compensate for a high level of regulation including the support of the staff and the financial assistance student groups receive from universities.

In the end, **it is not possible to confirm the first expectation** that there is an association between the level of regulation and the viability of a student group. A more regulated student

life does not necessarily make it more difficult for a student group to be viable.

### **New factor 6: Hierarchy**

During the process of creating the Dutch student group, the group immediately received a strong amount of support, even from the teachers. The interviewee proposed that the reason behind this is a low level of hierarchy at the university. He stated that “the independence to [initiate activities] is quite unique at the University of Twente.” It helps to freely express themselves without any barriers. Hence, a new factor here is the lacking hierarchy between the students and the university staff (Dutch student group, personal communication, June 6, 2019). This factor seems to have an effect on the student group’s ability to maintain their group as well as toward the support they receive, as they can rather easily receive support from teachers and other staff.

## **5.2 The effect of the type of university (classical and technical type) toward the level of interest in environmental student groups**

*Expectation 2: Technical universities have fewer students interested in environmental student groups than classical universities.*

This expectation suggested that universities with more social science students tend to have more active students because social science students tend to be more critical toward society and politics since it is the focus of their study. The Dutch university is technology-oriented which was expected to lead to fewer students being active with environmental issues due to less environmental consciousness. Due to a broader variety of study programs at the German university, it was expected that this university has more students interested in environmental groups.

Within the German student group, the members study a broad variety of study programs. This includes social sciences such as political science and politics and law, business, law, and economics. However, there are also many natural science students including physics, math, and geography. The interviewees state that even though there are a certain number of politics students within the student group, there are also many students from other programs represented (German student group, personal communication, May 25, 2019). Therefore, the student group has members with many different educational programs.

The Dutch student group has group members studying psychology, law, industrial design and the so-called ATLAS program (a mix of mathematics, engineering, and social sciences). The interviewee from the Dutch student group perceives students at engineering universities to think rather technocratic which makes it more difficult for the student group to switch their mindset and reach these people. Even though the Dutch student group receives relatively strong support from the student population since many students attend their meetings, other people are critical. He states that, as a consequence of being a group in a technical educational environment, the ability to reach students with their initiatives is decreased. The events organized by the group predominantly attract people who already have a relatively high consciousness toward environmental sustainability, while students who are uninterested in this topic do not attend their events. According to him, this stems from the differences between social science students and engineers. Whereas technical students only focus on solutions, preferable technical solutions with no strong focus on the cause behind problems, social science students put their priority on behavioral change in solving problems (Dutch student group, personal communication, 6th June 2019). This distinction is further exemplified since the Dutch student group does not have pure technical students. Pure technical studies imply studies that only focus on the technical aspect with no multi-disciplinary character.

Contrasting to the interviewee's perception is that even though the Dutch university is technical-oriented it does not necessarily have fewer students interested in environmentalism and sustainability. This is because the university has a variety of other student groups such as a group that is constructing a boat that is run by renewable energy. Their goal is to encourage “environmental awareness by the application of renewable energy in the maritime sector“ (Who we are, n.d.). Another student group focuses on the aim of achieving the United Nations sustainable goals by “using renewable energy to address the future of sustainable mobility [in which they work on the development of] technologies and innovations for efficient use of solar energy as a power source“ (Powered by Human Energy, n.d.). Thus, even though there are many students at the Dutch university studying technical programs, it does not necessarily decrease their level of interest in environmental student groups. However, the aim of these groups is different compared to the Dutch student group because they want to deliver technical solutions for environmental problems. In contrast, the Dutch student group focuses on inducing behavioral change among the students and staff. The

Dutch environmental policy officer further stated that not only social science students participate in environmental student groups. She said that this is resulting from the high-tech human touch aspect of the university which includes a social aspect of technological implications. That implies that not merely social students are interested in environmental groups but also students enrolled in a study program with a multidisciplinary approach. This statement is underlined since some of the members within the Dutch group study programs such as ATLAS which is a mix of mathematics, engineering and social sciences (Environmental policy officer, personal communication, June 3, 2019). The reason for students with various educational programs joining environmental groups might result from the multidisciplinary factor of environmental problems. Solutions to environmental problems require a complex composition of ideas from many disciplines such as engineering for developing technical solutions, social sciences for focusing on behavioral change or implementing policies. Moreover, natural sciences to understand the biological, physical and chemical component behind the environment.

To summarize, the results show that not predominantly social science students are joining environmental student groups. This stems from the observation that not merely social science students are active within environmental student groups. It further includes natural science students and even some technical-oriented students. Taken together, these results suggest that there is no association between technical and classical universities and the level of interest of the students in environmental student groups. Therefore, **expectation two cannot be confirmed**. The findings suggest that there is no association between the two types of universities (classical and technical) and the interest of their students in environmental student groups.

### 5.3 Level of responsiveness

In order to test the following three expectations, the level of responsiveness was measured. At the German university, if a student wants to implement a specific environmental project, the student can go to the sustainability department of the ASTA (in which two members of the German student group are sitting in). The department helps them to establish and guide them with the project. Projects include for example food sharing initiatives or the implementation of a student garden etc. However, if they have suggestions for the university

to implement a policy, it becomes difficult. This is because there is no real channel for delivering such policy recommendations only the sustainability department of the ASTA.

However, the department only consists of students and no university staff. Therefore, there is no channel where students can deliver policy recommendations toward the university administration or university staff. This shows a low level of responsiveness at this university. Even though the ASTA can take suggestions of a student into account and can forward this request toward the university, the ASTA itself is not part of the decision-making process. Hence, they have no power to implement a policy. The decision is made by the university administration in which the Rektorat (Presidency) and the Senat (Senate) make the decision about whether they will implement a suggestion or not. The sustainability department of the ASTA has no influence in it actually taking place, but they can act as a voice in between the students and the university board. However, the university leadership gives more attention to the sustainability department of the ASTA than toward other normal student associations. This is stemming from the fact that the sustainability department of the ASTA is politically elected. Therefore, they are representatives of the whole student population. This is because other groups are only able to speak for their own group but not for all students. However, the level of responsiveness of the university toward the ASTA is dependent on the topic. With some topics, the ASTA is forwarding requests from other students to someone else. Some topics are taken into account and the suggestions altogether are then used for a collective presentation to the university leadership. Hence, in regard to small alterations such as the change in food products at the cafeteria, the group is able to influence the leadership. This is evident since they were able to implement the policy of a supply of regional, biological, vegan and vegetarian products in the cafeteria of the university (Das haben wir bisher erreicht, n.d.). However, when it comes to bigger policies, the group, as well as the ASTA, is powerless. Their limited influence also results from the fact that the ASTA is not able to provide any financial means for the implementation of policies. Nevertheless, the group said that if a topic is perceived as very important, they are publicly critical in the form of demonstrations with references to the university. However, it only takes place on rare occasions. In the end, the group feels more like the uncomfortable voice of the university. It is in the educational law of the country that there should be an ASTA but the group has the perception that the university has no interest in granting them more power. That is why they aim for a studentisches Prorektorat (student rectorate). This would make it possible to participate in the decision-making process together with four other protectorates (including

the staff). This would make the group more powerful since they would be closer to the Rektor (President) which would increase the influence of the group toward the decision-making process of the university. However, it would be still limited because there would be only one student rectorate against three or four other rectorates from the university staff (German student group, personal communication, 25th May 2019).

In contrast to the German group, the level of responsiveness is relatively high toward the student group at the Dutch university. This results from several factors. First of all, the Dutch environmental policy officer is responsible for responding toward environmental policy recommendations and comments raised by students and student groups which are sent to her via email or a contact form. Moreover, in February and March, she organized walk-in consultation sessions within seven buildings of the university in which students could have shared their ideas about what the university could do better in regard to waste, energy, mobility, water, inside and outside the buildings, etc. (Meijer, 2019).

In the interview, she said that all these recommendations made by students are taken into account and are included within her policy report. This policy report will be delivered toward the executive board which will then decide whether they want to implement her policy or whether she has to change it.

She takes suggestions and criticism raised by the students into account and tries to involve it into her policy. However, in regard to the question, if she thinks that it is rather easy or difficult to respond to the students, she answered yes and no. This is because sometimes students raise unrealistic solutions and are too critical and naïve. Hence, there can be some friction. She reacts to all emails but sometimes statements made by students are not based on evidence and then it is impossible to take that into account. Moreover, the policy officer and the Dutch student group actively worked together on a policy recommendation for the implementation of a Green Office.

Besides, the student group is in contact with the University Council and the Student Council. The group consults these bodies if they feel that there is a specific environmental topic missing on their agenda (Dutch student group, personal communication, June 6, 2019). The University Council is the central body of the university and makes regular discussions with the executive board. It consists of 18 members, nine from the staff and nine from the students in which they participate in the policy process at the central level (Faculty Councils, n.d.). The executive board is the highest executive body at the university, consisting of the

president, rector and vice president. They are appointed by the supervisory board who are there for “ensuring compliance with the current legal regulations and advising the executive board” (Executive board, n.d.).

To conclude this section, the German group already exists since ten years and achieved some of their goals; however, the Dutch group is a new one and also achieved a lot in this short time frame because the latter received stronger support from the university. They actively want students to be involved. This can be further seen since the university implemented a sustainable policy job position because they want to make the university more environmentally sustainable. In the end, the Dutch university is more responsive toward their students since they have the channel of submitting suggestions to the policy officer. Sometimes the group even gets approached by the university staff to give recommendations. Therefore, the students get incorporated better implying a higher level of responsiveness than at the German university where there are no such contacts or channels.

#### 5.4 The effect of tuition payments toward the level of responsiveness

*Expectation 3: Universities that retrieve tuition fees from their students have a higher level of responsiveness toward environmental student groups than tuition-free universities.*

This expectation underlined the financial importance of the university to be able to respond to students and student groups. Since the Dutch university retrieves tuition fees it was anticipated that the leadership is more responsive toward their students than the German university leadership because they have more money at disposal. This allows the university to install for example channels to deliver policy recommendations which leads to a faster reaction toward student groups. It has to be mentioned again that due to an incorrect measurement of the factor tuition payments, a focus was made on the factor of the general financial means of the university.

The Dutch sustainable policy officer stated that the financial means of the university are sufficient, otherwise they would not have installed their job position to make an environmental policy report. This is further stemming from the increased advertisement of environmental sustainability at the university. She further says that the financial means can be an important factor to be able to respond to students and take their suggestions into account.

However, it is not necessarily the most significant factor. More important is the prioritization of the university leadership toward environmentalism. If there is a high level of personal interest to make the university more environmentally sustainable, but the financial means are insufficient, there are other options at stake. Such options include subsidies from other stakeholders or the redistribution of the spent money. However, even though the goal can be leading, the financial perspective can never be completely disregarded (Environmental policy officer, personal communication, June 3, 2019).

The German group states that their university might be more responsive if they would have more financial means at disposal. This is because more money would increase the responsiveness of the university toward the group. The university would, moreover, be open for new projects. On the contrary, similar to the perception of the policy officer, the group states that the financial aspect is not the most important factor. They state that the level of responsiveness strongly depends on the prioritization of the individuals in the leadership positions. This means that if the people in these positions are personally concerned about environmental topics, they are more likely to implement environmentally sustainable measures and have a higher responsiveness toward student groups (German student group, personal communication, May 25, 2019). Hence, there is another factor at play which activates the university to respond to environmental student groups. This factor is the level of personal interest in environmental topics of the university leadership. It implies that individuals in leadership positions that personally care about environmental issues aim for making the campus more sustainable. Hence, they incorporate students more increasingly which increases the level of responsiveness of the university. On the other side, if the university leadership has a low level of interest, it is hard and almost impossible for student groups to influence an environmental policy adoption. The German student group perceives their leadership to have a low level of personal interest in environmental topics, especially since there are no channels for delivering policy suggestions.

To summarize, the third expectation that universities who retrieve tuition fees have a higher level of responsiveness can be **partially confirmed**. This is because the financial means are not completely unimportant in the implementation of environmentally sustainable policies. The findings suggest that a more important factor is the *willingness of the leadership* to react toward environmental groups.



### **New factor 7: Willingness of the university leadership to react to environmental student groups**

According to the interviewees, the willingness of the university to react to the groups is triggered under one of two dimensions: *Level of personal interest in environmental topics* or *level of green marketing*. It implies that if one of these conditions is present within the university leadership, they are more willing to listen to student groups.

#### **Dimension 1: Level of personal interest in environmental topics**

The interaction between student groups and the university leadership depends on the university leadership's level of personal interest. This implies that it strongly depends on the interest of the people in leadership positions. If they put a stronger salience toward environmentalism, they are more likely to react toward environmental student groups. If the person in the leadership personally cares about making the university more sustainable and environmental-friendly, they do that and even approach the students.

#### **Dimension 2: Level of green marketing**

According to the interviewee of the Dutch student group, another factor affecting the level of responsiveness is the level of green marketing. This stems from the increasing environmental awareness among the population. Advertising the university as being environmentally sustainable can be used as a marketing tool to attract more funding and students. This is a factor for universities to react to student groups and to implement channels where they can deliver policy recommendations. The Dutch sustainable policy officer said that this dimension also gets activated when the university is aiming for being a frontrunner in environmental sustainability which also increases the incorporation of student groups opinions.

## **5.5 The effect of the student size of the university**

*Expectation 4: A larger student size at universities leads to a decrease in the level of responsiveness toward environmental student groups.*

The German student group noted that their university has a large infrastructure with a lot of students and staff. They perceive that this factor makes it more difficult for the university to respond to such groups. This is because due to a larger student size, the university is not able

to focus on all issues raised and, therefore, has to set priorities. Hence, due to a larger student size, the responsiveness toward the group is decreased. Another problem is that responsibilities are not clarified, which implies who is responsible for which area of activities at the university. As mentioned before, there is further internal resistance among the leadership at the German university. This is because many policies are dependent on the priorities and personalities of the people in the leadership position. If a person in a leadership position has a high level of personal interest toward environmentally sustainable topics, they will be more responsive toward the student group's suggestions (German student group, personal communication, May 25, 2019).

The Dutch policy officer said that small universities have less staff and that makes it easier to execute plans. There is “no need to discuss with a team of eight energy officers that have a different view and approach” (Environmental policy officer, personal communication, 19th June 2019). However, she said that the process from a suggestion of a policy to its implementation still takes some time. That implies that even though the university is rather small, the responsiveness can still be slow. This stems from the fact that a change always needs some time and cannot be implemented immediately. Furthermore, since the environmental sustainable team at the Dutch university is quite small and new with a top-down approach, it makes it more difficult to include students in the policy process. The decision-making process is faster with a smaller team but also the shortage of “manpower [can] affect the responsiveness to students” and the ability to implement the suggested policies (Environmental policy officer, personal communication, 19th June 2019). This is because in larger facility management teams there are usually more people with various skills and with a more diverse background. Hence, a bigger team is more able to react to various concerns raised by environmental student groups. Fewer people in a team might mean less diversity in background, experiences, and skills among staff. In the end, she suggested that it is not so much the student size which has an effect on the level of responsiveness but rather the *level of coordination*. She stated that an efficient human resource policy can solve the problems that come with a small or big university (Environmental policy officer, personal communication, 19th June 2019).

In conclusion, **expectation four cannot be confirmed**. The results show that there is no association of the student size and the level of responsiveness of the university toward student

groups. In summary, these results show that it is not the student size of the university but rather the *level of coordination* of a university that determines the level of responsiveness.

### **New factor 8: Level of coordination**

In order to be responsive to the students it needs efficient coordination and everyone at the university should be connected with each other. A high level of coordination and an efficient human resource policy increases the level of responsiveness of the university toward the groups. An efficient way to increase the level of responsiveness in this regard would be the implementation of a Green Office. A Green Office, which takes a bottom-up approach, increases the student involvement toward environmentally sustainable issues. As an example of a successful implementation, the interviewee took the Utrecht University. It is a big institute with 30,000 students enrolled. However, even though they have a large student number, the university has a big sustainability team due to their Green Office. Since the university has a specific team which can dedicate time to environmentally sustainable topics, the university is more efficient in regard to sustainability issues. Moreover, this increases the level of responsiveness (Environmental policy officer, personal communication, 19th June 2019).

## **5.6 The effect of the level of engagement**

*Expectation 5: The higher the level of engagement of environmental student groups, the higher the influence toward the decision-making process of the university to implement environmentally sustainable policies.*

The different initiatives, a student group organizes, can be divided into the socialization, influence or power level. Socialization initiatives focus on inducing behavioral change (Helferty & Clarke, 2009, p. 290). Influence initiatives imply being an advisory board for other stakeholders inside or outside the university. The power level is the highest level in which “there is an equal partnership between the youth and adults in [the] decision making” (p. 296). Expectation five suggested that groups with a higher level of youth engagement are more successful toward influencing the decision-making process of the university. A higher level of youth engagement implies a power and influence level of the group. There is a variation in “ways in which ... [student groups] are engaged and the degree to which ... [student groups] are involved in decision making” (p. 295). This involvement in decision-

making depends on the level of initiatives. However, groups can also implement initiatives of different levels. First of all, the initiatives of the two groups were explained with a focus on differences. Afterward, expectations five is tested.

The German group is a political group at the university involved within the sustainability department of the ASTA. They were successful in enforcing one of their policies of the disengagement of the university in investment in fossil energy. The university herewith became the first university to exclude investment in fossil energy (Endlich sauber – Die Uni wird grün, 2018). Hence, the group was able to influence the decision-making body to not further invest in fossil energy which is an influence level of initiative. Moreover, the group often does assessment initiatives in which they assess for example the university cafeteria. Regarding assessment initiatives, they were able to enforce the supply of regional, biological, vegan and vegetarian products in the cafeteria of the university (Das haben wir bisher erreicht, n.d.). They do these initiatives by asking (sending emails) to the university administration to enforce specific policies, however, they often times do not receive any response from the university leadership. The group is like a voice in between the university leadership and the student population.

The group sometimes also does socialization initiatives such as dining activities. However, it is not within their main focus as they arrange these type of activities infrequently. The group has never been on the power level because they never took part in the decision-making of the university and have, therefore, no equal partnership with the decision-making body (German student group, personal communication, May 25, 2019).

The goals of the Dutch student group are two-folded: One is awareness, the other is impact. By raising environmental awareness they aim for behavioral change among students and staff. As it can be retrieved from their Instagram account the group raises awareness via Instagram posts about the water used for producing one kilogram of meat (Dutch student group, 2018a) or a pair of jeans (Dutch student group, 2018b). They further establish initiatives such as campus cleanups. Moreover, they make the planning of dining activities and movie nights and lectures about climate change and climate debates. Influence activities involve for example their activity of planting trees (Van der Werf, 2018). Another example is the establishment of working groups within the Kick-in committee to help the committee to become more sustainable. Moreover, they contact the executive board and the University Council in case they perceive a specific environmental topic as being underrepresented within

their policies. To summarize, the group has a relatively high influence on the bottom level by, moreover, incorporating working groups in the Kick-in or influencing the campus facility management. However, even though the Dutch student group focuses on influencing activities, their main events are socialization initiatives (Helferty & Clarke, 2009, p. 296). Socialization does “not necessarily require the support of many on-campus stakeholders [and] require less knowledge, or were shorter term initiatives” (Helferty & Clarke, 2009, p. 295). Hence, the reason behind implementing these initiatives is merely due to simplicity and since these kinds of initiatives also allow for a larger number of participants (p. 295). Even though the German group also does socialization initiatives, their main focus lies on trying to convince the university to implement policies or developing new projects. Regarding the expectation, since the German group has a higher level of engagement than the Dutch group, they should be more successful in influencing the decision-making process of their university.

Toward the question whether the group thinks that they have an influence toward the implementation of sustainable policies at their respective university, the Dutch interviewee answered with yes while the German group said that their influence is relatively small. The German group said that the only tool they have for influencing the leadership is that they can send an email with a recommendation to the leadership. However, they have no influence on the implementation of policy suggestions. The group said that sometimes they choose between “specific levels of escalations” depending on how much upwind they receive from the university. As they said is that they used to occupy buildings at the university. However, these measures usually do not increase their influence on the decision-making process (German student group, personal communication, May 25, 2019).

In the end, the staff and the administration at the German university have far more influence toward decisions than students. On the surface, it seems like the German group might have more influence toward the university than the Dutch one due to the fact that the German group is a political one. However, it cannot be confirmed that they are more successful than the Dutch student group. This is because if the university leadership does not put a high salience toward environmental sustainability, the student group is powerless. When looking at the Dutch university, they are not a political group but they still influence the university and sometimes even get approached by them. This shows once again how important the factor of the priorities of the university itself is. The German group already exists since ten

years and achieved some of their goals; however, the Dutch group is a new one and also achieved a lot in this short time frame because the latter received a stronger support from the university. This is because, in contrast to the German university, the Dutch university actively tries to include the opinions of students. As the German group noted that, as mentioned before, this depends on the level of personal interest in environmental topics of the university leadership. If they put a stronger salience on sustainable issues, they tend to be more responsive toward the groups (German group, personal communication, May 25, 2019).

To conclude, the initiatives of the student group can be a factor determining their influence toward the university leadership because for instance socialization initiatives are usually not able to influence the decision-making process since they are focused on only reaching students. However, more importantly, is the willingness of the university leadership to interact with the groups and implement the group's suggestions. This is, moreover, because specific initiatives such as working together on a policy with the university leadership can only be implemented by a group if the university does deliver any kind of responsiveness toward the student groups. **It cannot be confirmed**, that, regarding expectation five, that there is an association between the level of engagement and the decision-making process of the university.

## 6. Conclusion

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Within this section the sub-questions will be answered, followed by the main research question.

*1. How does the 1) the level of regulation affects the viability of environmental student groups?*

The results contradict the claim that a higher level of regulation makes it more difficult for a student group to be viable. Even though the student life at the Dutch university is more regulated due to for instance low flexibility in their schedules, it does not necessarily hinder students to be active in participating and in maintaining environmental student groups. However, it is not clear that due to the less regulation at the German university, it is easier for the German group to be viable. This is because it is not certain if the reason behind their

long-lasting existence is the low level of regulation or rather their strong establishment within the political structure of the university.

*2. How does the 2) the type of university affects the level of interest of students in environmental student groups?*

The observations oppose the expectation that within technology-oriented universities, due to the stronger focus on technical aspects, students are less environmentally conscious. Students enrolled in technical study programs can still have a high level of interest in being environmentally active. The existing other student groups at the University of Twente prove that technical-oriented students can be active in the regard of developing technological solutions for environmental problems. One example is another group at the Dutch university which is in the process of constructing a boat that is run by renewable energy. Moreover, not merely social science students are interested in environmental student groups. This is shown within the German student group since they have members studying a broad variety of studies including natural sciences.

*3. How do the factors such as 3) the amount of tuition payments and 4) the student size of the university affect the level of responsiveness of the university toward environmental student groups?*

The financial means have to be present in order for the university to implement environmentally sustainable policies, however, it is not the main factor. More important is another factor namely the willingness of the university leadership to implement environmental policies. This is because an insufficient amount of financial resources can be compensated by other sources such as subsidies, receiving funding or by a redistribution. The willingness of university leadership is triggered by either a high level of personal interest in environmental topics or the level of green marketing.

Contrary to the expected effect of the student size toward the level of responsiveness, the study showed that the student size of the university does not have an effect on the university to respond to student groups. It rather depends on their level of coordination. For example, as the Dutch policy officer mentioned is that universities with a Green Office tend to be more responsive toward implementing suggested policies of student groups. Thus, their

coordination is important which implies a good planning of all details, great communication and a good division of tasks and activities. The level of coordination of the university affects the ability of the university to react toward environmental student groups.

*4. What are differences in the 5) level of engagement of environmental student groups?*

One difference is that the German group is a political group and is established within the sustainability department of the ASTA which is a representative of the whole student population since they are democratically elected.

The German student group has a higher level of engagement since the group's main focus is on influencing activities. Even though the Dutch group also does influence initiatives, they have a stronger emphasis on socialization initiatives, the lowest level of engagement according to the theory of Helferty and Clarke (2009).

*5. What is the effect of the 5) level of engagement of environmental student groups toward the decision-making process of the university on implementing environmentally sustainable measures?*

The type of initiatives the group implements has an effect on the university implementing environmentally sustainable policies, however, only when the university wants to react toward these groups. This is also because specific initiatives can only be implemented by a group if the university does deliver any kind of responsiveness toward the student groups. A power level of engagement, for instance, a policy development with equal representatives of students and staff is only possible if the university allows this. Hence, the willingness of the university leadership to work with these groups is a very important factor for the groups to achieve their goals.

***How can differences be explained between a German and a Dutch university in the aspect on how environmental student groups have an influence on environmentally sustainable policies and activities?***

While comparing both universities, it showed that the institutional context, in general, is an important condition for the success of an environmental student group.



First of all, it becomes more difficult and even impossible to influence the university decision-making if the level of responsiveness is low, meaning if there are no channels available for communication between both actors. One factor activating an increased interaction of the leadership with environmental groups is the presence of a high level of personal interest in environmental topics. That implies that individuals in the leadership with a personal affiliation toward environmental issues are more likely to interact with environmental student groups. This further increases the likelihood of incorporating and implementing student groups policy recommendations. Another factor that increases interaction is the level of green marketing. This stems from the increasing environmental awareness among the population. Advertising the university as being environmentally sustainable can be used as a marketing tool to attract more funding and students.

To speak in the words of Pawson and Tilley (1997), the context of a high level of personal interest in environmental issues or a high level of green marketing of the university affect whether the mechanism of an active interaction of the leadership with the group is triggered. This leads to the outcome of implementing the group's suggestions.

The findings further show that the student size of the university does not affect the level of responsiveness but rather the level of coordination of a university. An efficient level of coordination implies good planning of all details, great communication and a good division of tasks and activities. This increases their ability to interact with student groups and take students suggestions into account.

The results do not fit with the theories of Altbach (1989) and Luescher (2015, 2018). The contradictory findings of this study may be due to the scholars focus on political and social student activist groups. However, their theory is not applicable to the specific type of environmental student groups. A possible explanation for this is that, as the findings showed, environmental groups do not only have group members studying social science. There are also many natural science students represented and even some technical-oriented students. A possible explanation for this is that environmental issues need multidisciplinary solutions including a behavioral change and technical applications. While political and social science students rather focuses on political or social solutions. The findings of this research are in line with Weiler's (2000) theory since the financial means are still an important factor in the implementation of policy recommendations made by student groups.

In the end, this study delivered a new framework which can be used within further research to understand the relationship between environmental student groups policy suggestions and the university leadership implementing these recommendations.

## **7. Discussion**

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### **7.1 Practical implications**

The findings of this study also have practical implications if the university leadership is willingly to optimize their relationship toward environmental student groups. In order to incorporate policy suggestions of environmental student groups into practice, the university needs to have an efficient level of coordination. This could be increased with the establishment of a so-called Green Office. This sustainability department allows students and staff to work together on the development and implementation of environmentally sustainable strategies (Lehnhof & Nolan, 2016).

### **7.2 Strengths and weaknesses**

The utilization of two cases allows for an in-depth analysis in a real-life context. It is a flexible method which helps to adapt as the research develops. Comparative research delivers the advantage of facilitating the understanding of the phenomenon since the focus on differences and similarities gives greater insight into the topic. Using two types of data collection methods (triangulating data) allows for the provision of more knowledge and evidence in order to receive more credibility (Bowen, 2009, p. 28). Further, “by examining information collected through different methods, the researcher can corroborate findings across data sets and, thus, reduce the impact of potential biases that can exist in a single study” (p. 28). Besides, using documents next to interviews is a suitable strategy to minimize bias from the interviews.

However, advantages come with disadvantages including inter alia that the methods used within this study are not generalizable. Another drawback is that an interview should have been conducted with the university leadership in order to understand their view about including suggestions of these student groups. And most importantly, to understand whether

the implementation of the student groups suggested policies, in fact, depends on the level of personal interest and the level of green marketing or if there might be another factor involved. Besides, the answers of the German student group could not be weighted with a staff of the university due to no interview possibility. Moreover, in regard to the interview conducted with the person of the Dutch student group, some questions were not formulated completely neutral which might have led to biases in the responses of the interviewee. Another problem is that the factor tuition payments was measured incorrectly as the focus was put on financial means rather than on tuition payments.

### 7.3 Recommendations for the future

Considering the findings and limitations of this case study, further research is needed. The qualitative methods used are not able to generalize these findings as they are merely based on opinions and perceptions. Therefore this study can serve as a starting point for testing the new factors within further research on a large scale to rule out spuriousness from other factors. This would also increase the external validity of the relationships. Further research needs to examine more closely the links between the factors of the level of personal interest, level of green marketing as well as the level of coordination toward the level of responsiveness of universities toward these student groups. Moreover, other studies should be undertaken to explore how the factor of the hierarchy of a university has an effect on the relationship between student groups and the university leadership. Due to the inclusion of many factors, it is recommended in the future to focus on fewer relationships to receive a more profound understanding and to be more specific.

## 8. References

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Activism (n.d.). Student Union. University of Twente. Retrieved from:  
<https://su.utwente.nl/en/activism/>

Activism Market (n.d.). Student Union. University of Twente. Retrieved from:  
<https://su.utwente.nl/en/activism/morethanadegree/activismmarket/>

Adams, R., Martin, S., & Boom, K. (2018). University culture and sustainability: Designing

and implementing an enabling framework. *Journal of Cleaner Production*, 171, 434-445.

Anzahl der Absolventen eines Hochschulstudiums innerhalb der Regelstudienzeit in Deutschland im Jahr 2017 nach Abschlussart. (October, 2018). Statista. Retrieved from: <https://de.statista.com/statistik/daten/studie/226104/umfrage/hochschulabschluesse-innerhalb-der-regelstudienzeit/>

Blatter, J., & Haverland, M. (2012). *Designing case studies: Explanatory approaches in small-N research*. Palgrave Macmillan. Chapter 3.

Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qualitative research journal*, 9(2), 27-40.

Bundesverband grün-alternativer Hochschulgruppen & Bildungswerk e.V. (n.d.) German student group. Retrieved from: <http://www.campusgruen.de/orga/>

Das haben wir bisher erreicht [What we achieved so far]. (n.d.). German student group. Retrieved from: <http://campusgruen-muenster.de/wahlen-2018-2/das-haben-wir-bisher-erreicht/>

Endlich sauber – Die Uni wird grün! [Finally clean – The university is becoming green]. (14<sup>th</sup> March 2018). German student group. Retrieved from: <http://campusgruen-muenster.de/2018/03/14/endlich-sauber-die-uni-wird-gruen/>

Executive board (n.d.) University of Twente. Retrieved from: <https://www.utwente.nl/en/organization/structure/management/>

Faculty Councils (n.d.) University of Twente. Retrieved from: <https://www.utwente.nl/en/university-council/faculty-councils/>

Fung, C. Y., & Adams, E. A. (2017). What Motivates Student Environmental Activists on College Campuses? An In-Depth Qualitative Study. *Social Sciences*, 6(4), 134.

Importance of activism (n.d.) Student union University of Twente. Retrieved from:

<https://su.utwente.nl/en/activism/moreinformation/importance-of-activism/>

Helferty, A., & Clarke, A. (2009). Student-led campus climate change initiatives in Canada. *International Journal of Sustainability in Higher Education*, 10(3), 287-300.

Luescher, T. M. (2018). Altbach's Theory of Student Activism in the Twentieth Century: Ten Expectations that Matter. In *Students in Twentieth-Century Britain and Ireland* (pp. 297-318). Palgrave Macmillan, Cham.

Meijer, B. (February, 19th, 2019). *Consultation for Sustainability Policy UT*. University of Twente. <https://www.utwente.nl/en/news/!/2019/2/220690/consultation-for-sustainability-policy-ut>

Master's programme Sustainable Energy Technology (n.d.) University of Twente. Retrieved from: <https://www.utwente.nl/en/education/master/programmes/sustainable-energy-technology/>

Nesvarova, M. (28<sup>th</sup> June 2018). *Flexitarian meals and less plastic cups*. UToday. Retrieved from: <https://www.utoday.nl/campus-life/65682/flexitarian-meals-and-less-plastic-cups>

Nesvarova, M. (2019). *Kick-In will be more sustainable this year*. University of Twente. Retrieved from: <https://www.utoday.nl/news/66988/kick-in-will-be-more-sustainable-this-year>

Pawson, R., Tilley, N., & Tilley, N. (1997). *Realistic evaluation*. Sage. 55-82.

Penthin, M., Fritzsche, E. S., & Kröner, S. (2017). Gründe für die Überschreitung der Regel studienzeit aus Studierendensicht1. *Beiträge zur Hochschulforschung*, 2(2017), 8-26.

Powered by Human Energy (n.d.) Solar Team Twente. Retrieved from: <https://www.solarteam.nl/>

Ralph, M., & Stubbs, W. (2014). Integrating environmental sustainability into universities. *Higher Education*, 67(1), 71-90.

Dutch student group. (2018, September 11) [Photograph of Waterfootprint fact #2]. Retrieved from: <https://www.instagram.com/p/BnlqEthiCk-/>

Dutch student group. (2018, September 12) [Photograph of Waterfootprint fact #3]. Retrieved from: <https://www.instagram.com/p/BnoKUqriW4t/>

The Twente Education Model (15h May 2017). University of Twente. Retrieved from: <https://www.utwente.nl/en/tom/tom-brochure-2017-definitieveversie15mei2017.pdf>

Über uns (n.d.). German student group. Retrieved from: <http://campusgruen-muenster.de/ueber-uns/>

Van der Werf, L. (October 2018). *De campus is een boom rijker*. uToday. Retrieved from: <https://www.utoday.nl/news/66051/de-campus-is-een-boom>

Wahlen 2018 [Elections 2018]. (22<sup>nd</sup> April 2018). German student group. Retrieved from: <http://campusgruen-muenster.de/2018/04/22/wahlinformationen-2018/>

Weiler, H. N. (2000). States, markets and university funding: New paradigms for the reform of higher education in Europe. *Compare: A Journal of Comparative and International Education*, 30(3), 333-339.

What we do (n.d.). Student Union. University of Twente. Retrieved from: <https://su.utwente.nl/en/about-us/whatwedo/>

Who we are. (n.d.). SolarBoat Twente. Retrieved from: <https://www.solarboattwente.nl/?lang=en>

Wie funktioniert Hochschulpolitik (n.d.) ASTA Münster. Retrieved from: <https://www.asta.ms/reader/reader-hochschulpolitik>