

PRAHEALTHSCIENCES



How PRA Health Sciences can attract German students for Clinical Trials through online communication

International Communication

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Executive Summary

The purpose of this research report is to elaborate on research that has been conducted for PRA Health Sciences Groningen by providing recommendations for an online marketing communication strategy that aids to create awareness among German students about clinical trials by PRA, and convinces them to act to apply for a clinical trial. PRA currently only focused on recruiting volunteers in the Netherlands, but wants to expand their target market to Germany as Dutch volunteers alone are not always available in big enough quantities to fill a research group. As volunteers must speak Dutch or English in order to be eligible for participation in a clinical trial at PRA, the company wants to focus on German students in particular as this group is likely to speak English sufficiently enough to communicate to the staff in the clinic. As PRA thinks that students are very active online, it was requested that the communication strategy would be focused on online communication.

The research areas online communication, persuasion techniques and German culture were chosen because the knowledge these areas provide could be applied to an effective online communication strategy for German students. Empirical research was performed in the form of a focus group and survey in order to answer the research questions that were derived from the theoretical areas, and these research results were supported by secondary data. Unfortunately, the research results obtained by both the focus group and survey lack some validity and reliability and the conclusion that could be derived from the research results is therefore just an indication, as the research results could have been different if the outcomes of the research methods did not have these validity and reliability issues.

Based on the final conclusion derived from the research results the following recommendations were made to PRA for the design of an online marketing communication strategy for German students:

- Set up a Facebook campaign that targets Germans between age 18-25 in German cities with high student populations to make German students aware of clinical trials by PRA.
- Create a separate Facebook page for Germany where all content is offered in German.
- Create different content about clinical trials and PRA that include a visual and a catchy phrase that emphasizes that a large amount of money can be made in a relatively short time, and that by doing this someone is helping other people and contributing to important research to catch the attention of German students and make them aware of clinical trials and PRA.
- Make a short introductory video about PRA to show German students that the company is real and cares about the safety and well-being of its volunteers.

- Invest in SEO optimization on Google in Germany for key words such as ‘clinical trial’ ‘medical research’ ‘company that does clinical trials’ ‘PRA Groningen clinical trials’.
- Create or collect volunteer testimonials for the website of student-aged individuals that include a picture and detailed description of fears and doubts these volunteers had before participating, and if they would participate again now that they have done it once.
- Use many facts and figures when communicating to German students online about the process of clinical trials and their safety.
- Hire a German speaking employee or intern for the online communication with German volunteers.

These recommendations were then translated into a design for an online marketing communication strategy that includes the set-up for a Facebook campaign that should aid to create awareness among German students about clinical trials by PRA, and content and activities for the website that should aid to convince German students to apply for a clinical trial. The advisory report also advises on an implementation for the campaign where the Facebook page and website will be integrated with each other through online links. Possible barriers for the online marketing communication strategy could be that management does not approve, due to the fact that there are no previous measurements that generates that the campaign will be successful, and because PRA relies on external companies to perform certain campaign activities. The implementation also advises on how to communicate and facilitate the communication about the changed policy with management and staff by organizing a meeting and a workshop where staff will be informed about the behavior of German students.

To increase the chances for the campaign to succeed a campaign planning spread over 4 months was created for the preparation, execution, and evaluation stage of the campaign. It was calculated that a budget of around €5.389, - should be made available if all recommended campaign tools would be utilized.

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Chapter 1: Project context

PRA is a Contract Research Organization that was founded in 1976 in Charlottesville, Virginia USA. They started out as an anti-inflammatory drug study group, but extended their services to clinical trials in 1991. From 1996 until 2013 PRA experienced major growth due to being acquired by large corporations (whom they later reacquired) and by acquiring smaller corporations themselves (appendix 1.3). In 2014 PRA became PRA Health Sciences in order to incorporate all the acquired corporations over the years into one big company. As of 2016 PRA Health Sciences has more than 12.000 employees in more than 70 offices divided over North America, South America, the middle east, Africa, Asia, and Europe. (PRAHS, 2016).

This research report will focus on PRA's branch in Groningen, the Netherlands, who is responsible for clinical trials. A clinical trial is the final stage of testing a medicine on its effectiveness, benefits and possible side effects, where the medication is tested on people. Large pharmaceutical corporations (sponsors) provide the medication for the trials. Sponsors therefore decide the length of a trial, and how many groups and people are needed in each group to get valid research results that will determine whether the medication is safe enough to enter the market. Since sponsors often have high demands when it comes to what they consider 'healthy' volunteers, not everyone who is interested in participating in a clinical trial is eligible. This is why it is important to recruit and test as many people as possible in order to get enough volunteers to fill a research group (PRAHS, 2016). To make a clinical trial a success, there are different organizational areas for each phase of the clinical trial. More detailed information about these areas can be found in appendix 1.4.

The people who engage in a clinical trial, are people who voluntarily sign up to participate in a study of their choice and get compensated for their time and commitment. These volunteers are usually healthy people, but may occasionally be patients with a specific illness. Since a clinical trial is often carried out over a time period of several days' intern in the clinic, PRA's target group are healthy people who do not have a set schedule or fixed income. These are mainly; students, entrepreneurs and flex workers. People who are unemployed and receive social benefits are not allowed to participate as the compensation they receive from the medical trial is generated as income.

PRA used to recruit volunteers from all EU countries, but changed this rule in 2013. Now only people who live in the Netherlands, Germany or Belgium who speak either Dutch or English are allowed to participate in a clinical trial for PRA in Groningen.

PRA currently only has a marketing communication strategy for the Netherlands (appendix 1.1). They actively recruit volunteers through both online and offline communication. For offline communication PRA uses posters and flyers that they place at universities. For online communication PRA uses Facebook to advertise and link people to their website where they can find more information and fill out an application. They used to incorporate other channels in this strategy as well, but these channels were not very effective as they did not generate a lot of responses. Facebook on the other hand has been very effective in creating more activity among potential volunteers. Arnaud Hoving (2016) mentions that when volunteers fill out an application there is a question that asks: How did you hear of PRA? (appendix 1.2) The majority of people answer through Facebook, Google or friends or family. He also says that the financial compensation in a Facebook advertisement is what triggers Dutch people the most, and therefore this information is highly emphasized in their online messages. PRA predicts that online communication will become more and more important to attract and engage with their target group that is very active online, and is therefore hoping to increase the usage of online communication channels in their marketing communication strategy in the long run.

Although many Dutch people are interested, PRA still faces situations where they are (nearly) unable to fill research groups for sponsors. Reasons can be that not enough people pass the medical exam or are not interested in participating in a particular trial. Therefore, it is important for PRA to have a large volunteer database with people they know are willing to participate in a clinical trial. To reach more people, PRA wants to expand their focus to Germany.

So far PRA has not been actively recruiting volunteers in Germany. In the past there have been communication issues with German volunteers as they did not speak sufficient English or Dutch, which sometimes caused problems in the clinic. However, PRA has never focused on German *students* in particular. PRA does think that German students are an interesting new target group as they are likely to speak English. Also, Germany has many cities with high student populations that are in close proximity to Groningen, and many German students study in the Netherlands.

The communication problem PRA faces when they want to expand their focus to recruiting German students as volunteers is the absence of a marketing communication strategy for this group. As PRA believes that students are very active online, PRA only wants to focus on an *online* strategy. With this strategy PRA does not only want to create awareness among German students, they also want them to act by filling out a volunteer application for participating in a clinical trial. Therefore, the goal of this report is to give recommendations for the development of an online marketing communication strategy for German students that will make them aware of clinical trials by PRA and convince them to take action by filling out a volunteer application. In order to achieve this, different aspects of online communication, persuasion techniques, and the German culture will be evaluated.

The research is practice oriented and in the diagnostic stage of the intervention cycle as the problem is identified, but contributing factors of the problem have not yet been diagnosed. As it is important to learn about the opinions of the stakeholders (German students) with regard to online communication preferences and motivations to participate in clinical trials, the type of diagnostic research for this project is opinion research.

Chapter 2: Theoretical Framework

To create the theoretical background and congregate the knowledge necessary to meet the external goal of raising awareness and convincing German students to participate in clinical trials through online communication, it is important to have an understanding of how this group communicates online, what factors play a role on how they are influenced in making decisions, and how cultural aspects play a role in their decision making process as well. Therefore, theories on online communication, persuasion techniques, and the German culture will be examined.

2.1 Online Communication

As PRA wants to focus on an online strategy in order to make German students aware and involved in clinical trials, it is important to know which online media channels this group uses to communicate online.

The Media Richness Theory (Daft & Lengel, 1986) is used to describe and rank the ‘richness’ a communication medium has. The richer a communication channel is deemed to be, the more effective the communication will be received and processed by those whom it is meant for. Carlson and Zmud (1999) expanded on this theory with their Channel Expansion Theory which suggests that the perception people have of a communication medium is related to user experience. Therefore, it is important to figure out which previous experiences German students have had with various online communication channels, so PRA can incorporate the channels that receive positive feedback into their online communication strategy.

Tuten & Solomon (2014) explain the different purposes for what people use particular social media channels in their four zones model (Figure 1). Two of these zones, social community and social publishing, could be interesting for PRA to look into as these focus on sharing and creating content. Social community relates to the social networks that focus



Figure 1 Source: http://uk.sagepub.com/sites/default/files/upm-binaries/65654_tuten_ch1.pdf

on relationships. These channels include; social networking sites, message boards and forums (Tuten & Solomon, 2014). Social community focuses on sharing content, which means that these channels can help PRA to create awareness about clinical trials among German students through online word of mouth communication. Social publishing relates to social networks that provide online content to an audience. These channels include; blogs, microblogs, photo and video sharing, presentations and documents, and social bookmarking services (Tuten & Solomon, 2014). As these channels allow for more content with more detailed information, social publishing can be helpful for PRA when looking into channels to convince people to take action.

2.2 Persuasion techniques

Theories on online communication help to figure out which communication channels the target group uses. However, in order to persuade people to apply for clinical trials by using online messages, it is important to evaluate how and why people behave a certain way toward a specific subject.

Fishbein & Ajzen (1980) introduced a theory of planned behavior (figure 2) which suggests that behavior is linked to beliefs that can be influenced by both internal and external factors. According to the theory, human behavior can be guided by; the possible consequences people think particular

behavior may have (behavioral beliefs), the perception of social normative pressures from others (normative beliefs), and the belief about the presence of factors that may help or impede the performance about the behavior (control beliefs). Once the attitude toward the behavior, subjective norm, and perceived behavioral control combined seem positive to a person, he or she has the intention to perform a certain behavior. When the perceived behavior control for an intention is strong enough, the behavior will be performed (Fishbein & Ajzen, 1980). As there are external factors that influence whether someone has the intention to perform a certain

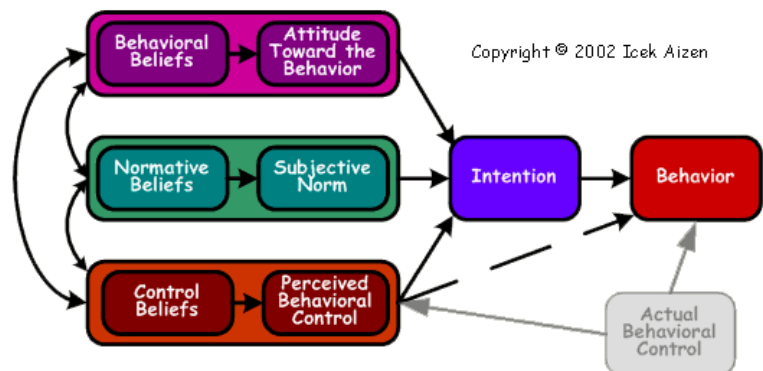


Figure 2 Source: <http://people.umass.edu/ajzen/pdf/tpb.measurement.pdf>

behavior, PRA could find what these external factors are and to what extent they, as an organization, have the power to influence these factors.

The Elaboration Likelihood model (Figure 3) is a model of persuasion developed by Petty & Cacioppo (1986) and describes how people process messages.

According to the model, messages are processed through either the central or peripheral route. The process of persuasion via the central route is careful and to the point. The receiver must

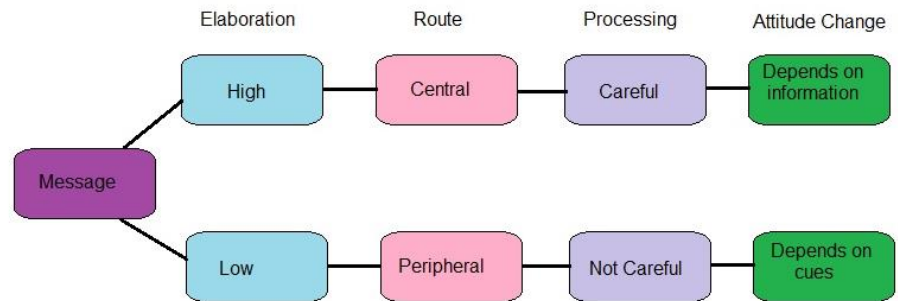


Figure 3 Source: https://upload.wikimedia.org/wikipedia/commons/6/6e/Elaboration_Likelihood_Model.jpg

care about the subject matter of the messages and have the motivation to process the information carefully. The attitude the receiver has toward the subject depends on the information that the messages contain. When processing via the peripheral route, involvement is low and the information of the message is not carefully analyzed by the receiver. The attitude the receiver has toward the subject depends on cues, such as colors or design, rather than information (Petty & Cacioppo, 1986). Knowing through which route German students process information will help PRA to know what to focus on when conducting their online messages regarding clinical trials.

Robert B. Cialdini (2000) wrote in his book 'INFLUENCE the psychology of persuasion' six principles that can be used to persuade (appendix 2.2). Three of these principles could be useful for PRA's strategy when persuading German students to participate in clinical trials. These are; the social proof principle, principle of commitment, and principle of authority. The social proof principle refers to the psychology that people are more likely to do something when others, especially others that are similar to them, do it too. This principle is most effective when people are unsure of something and want confirmation from someone else who has already experienced what they are about to experience (Cialdini, 2000). This could also be true for clinical trials. The principle of commitment refers to the psychology that people often do not want to commit to something big right away, but rather commit to something small and when the experience is good make the decision to commit to something bigger (Cialdini, 2000). As PRA has many different type of trials with different lengths, it is possible for new volunteers to make a smaller

commitment first. If it is found that this principle also applies to German students, PRA could apply this method when communicating about clinical trials to German students online. The principle of authority refers to the primitive human instinct to follow a figure or authority, often someone with high status or experience in a specific field (Cialdini, 2000). When it comes to clinical trials PRA could find if an expert in this field (e.g. doctors, scientists, pharmaceutical industry, company representatives) could persuade students in order to participate.

2.3 German culture

As the online communication strategy will be designed specifically for German students, it is important to know which aspects of the German culture should be taken into consideration when communicating about clinical trials. Cultural models will be evaluated to get information about how the German culture scores on different cultural dimensions. Note, however, that the preference of each German for each cultural dimension cannot be measured and that therefore the following models may not apply to each individual. However, the theories presented in this section have been created based on years of research and can therefore still serve as a general guide of how many German people think and behave.

Geert Hofstede (1980) did a study on national values from which he conducted six cultural dimensions which are explained in appendix 2.1. Within his study he applied his theory to several different countries including

Germany (figure 4). The German culture is low on power distance.

According to Hofstede the main reason for this is that Germany is “highly decentralized and supported by a strong middle class”. Equality is valued and leadership is disliked and therefore often challenged. Germans score high on individualism. Hofstede

mentions that Germans have a strong belief of self-actualization without having to take the opinions of others into account, and are loyal to duties and responsibility rather than people.

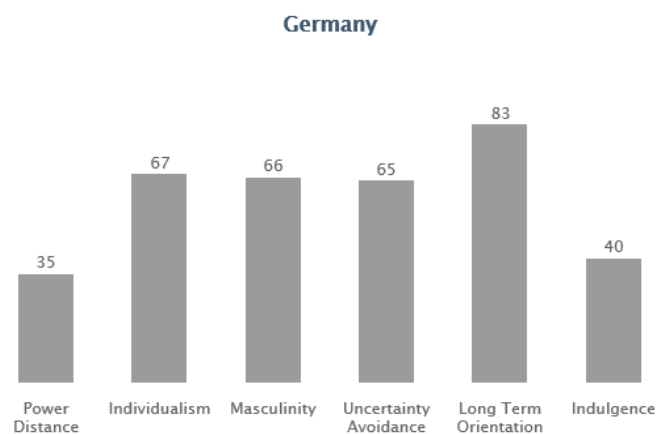


Figure 4 Source: <https://geert-hofstede.com/germany.html>

Germany is also a masculine society. High performances are rewarded and it is acceptable to value people more or less based on their performances (Hofstede, 1980). Germany is one of the countries that is on the higher end when it comes to uncertainty avoidance. Hofstede said that there is a strong preference for the deductive reasoning approach in the German culture.

Deductive reasoning means that a logical conclusion is drawn from one or more statements (Sternberg, 2009). In order to reach this conclusion, Germans tend to rely heavily on details and facts. When these do not seem convincing enough and can be taken into question, most people will likely avoid the subject or situation altogether. Germany scores very high on long term orientation. According to Hofstede this means that Germany is a pragmatic country. They easily adapt to changed conditions and put a lot of effort in achieving goals for the future. Once these are achieved new future goals are often set immediately. They never really live in the present. Finally, Germany scores low on indulgence which means they are a restraint society. people control the gratification of their desires, and do not value leisure because it is somewhat seen as a waste of time. They are also very critical about performances and are not easily satisfied (Hofstede, 1980).

Trompenaars and Hampden-Turner (1997) also created a model of cultural dimensions (appendix 2.2). Figure 5 is a schematic representation

of how these dimensions apply to Germany. Germany scores very high on universalism which implies that they highly value laws and rules. As well as in Hofstede's model, Germany scores high again on individualism. Trompenaars and Hampden-Turner also imply that the German culture is specific, and people tend to keep work and their private life separated. They also believe that a good personal relationship is not necessary to work together. When it comes to being neutral or affective, Germans are a bit more on the neutral side, which means that reason influences their actions rather than feelings (Trompenaars & Hampden-Turner, 1997). Germans also tend to be more focused on achievements. This means that someone is valued based on their

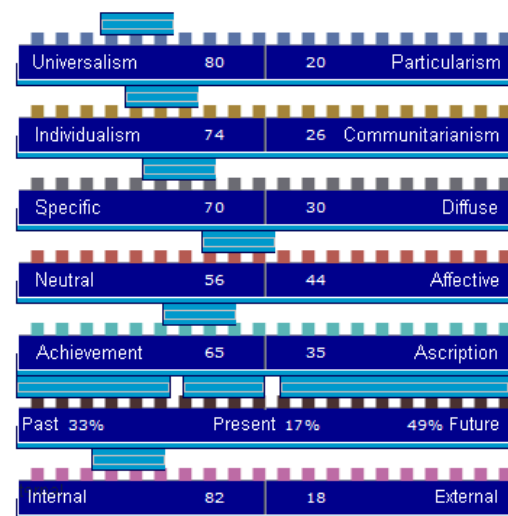


Figure 5 Source: https://meltingiceburgs.files.wordpress.com/2012/11/quantitative-cultural-analysis_culture-compass-online_fig-1.png

accomplishments rather than their title or who they know. Just like Hofstede (1980) Trompenaars & Hampden-Turner imply that Germany is a future oriented culture. Finally, Germany scores very high on internal control which means that they believe they can control nature and their environment in order to achieve goals (Trompenaars & Hampden-Turner, 1997).

Chapter 3: Research Objective

The research objective is to make recommendations to PRA for the design of an online marketing communication strategy for German students that will raise awareness and convinces them to act by filling out a volunteer application to participate in clinical trials **by** evaluating the opinions of German students regarding online communication channels they consider effective to create awareness and involvement, examining which external sources influence the target group's decision making process, how the target group prefers to processes information about clinical trials and how this affects message choices, and how cultural aspects influence the opinions German students have toward participation in clinical trials.

Chapter 4: Research Framework

The research framework (figure 6) follows the format Verschuren & Doorewaard (2010) recommend in their book ‘Designing a Research Project’. (A) Different theoretical areas were chosen to help solve PRA’s communication problem. These areas are; online communication, persuasion techniques, German culture, and will be supported by preliminary research. (B) Key concepts based on the theories were unraveled (appendix 3), and from here research questions for the project, and discussion questions for the focus group were drawn. The research objects are German students from universities in Germany (Hochschule Bremen) and the Netherlands (Groningen University (RUG) and Hanze University) and will allow for opinions of German students on different aspects from the relevant key concepts in relation to clinical trials. (C) From the results of the analysis conclusions will be drawn and based on these conclusions (D) recommendations will be given.

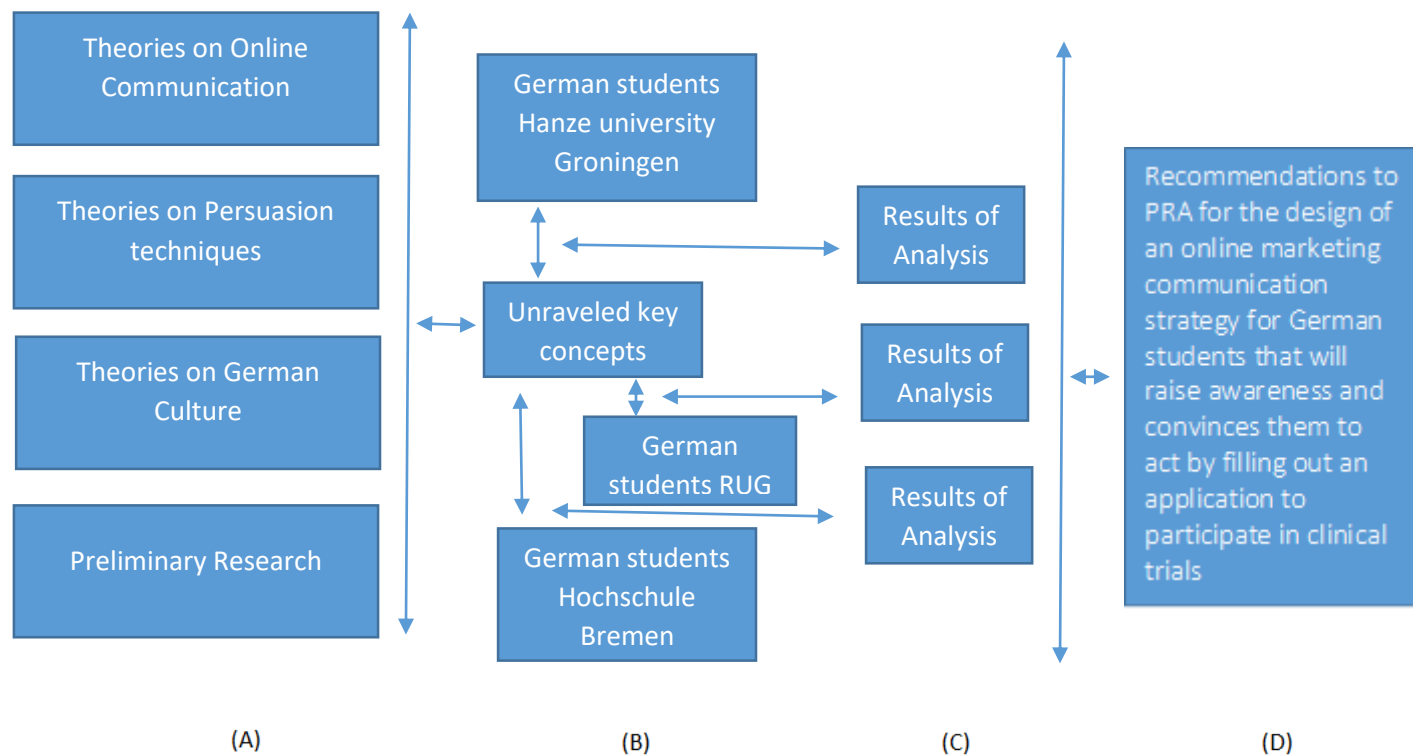


Figure 6 Research Framework

Chapter 5: Research questions

Steering and efficient research and sub-questions have been derived from the theoretical framework and the unraveled key concepts (appendix 3).

5.1 Questions about online communication

Which online communication channels, delineated from the theories reviewed on online communication, should PRA use in order to make German students aware of clinical trials and convince them to apply as a volunteer?

Sub-question 1:

Which online media channels could create awareness about clinical trials among the target group, according to German students?

Sub-question 2:

Which online media channels would the target group prefer when obtaining more specific information about clinical trials, according to German students?

5.2 Questions about persuasion techniques

What aspects, delineated from the theories reviewed on persuasion techniques, are relevant when trying to persuade German students to participate in a clinical trial, according to the target group?

Sub-question 1:

What external factors play a role that decide whether or not German students have the intention, as explained in the planned behavior model, to apply for a clinical trial, according to the target group?

Sub-question 2:

What route of information is preferred when the target group processes online messages about clinical trials, according to German students?

Sub-question 3:

Which persuasion principles are useful for PRA when communicating about participating in clinical trials to the target group online, according to German students?

5.3 Questions about German culture

How do cultural aspects, delineated from Hofstede's and Trompenaars & Hampden-Turner's cultural dimensions, influence the opinion German students have towards participation in clinical trials, according to the target group?

Sub-question 1:

Which of Hofstede's cultural dimensions play a role when German students form an opinion about participation in clinical trials?

Sub-question 2:

Which of Trompenaars & Hampden-Turner's cultural dimensions play a role when German students form an opinion about participation in clinical trials?

Chapter 6: Research strategy

The case study was chosen as the research strategy for this particular research in order to answer the research questions. The reason the case study was chosen is because only a small number of research units may be studied and because it allows for obtaining a general overview, it generates in-depth information, and flexibility is provided (Verschuren & Doorewaard, 2010). A general overview of the online communication behavior of German students, how they can possibly be persuaded, and what role the German culture plays when German students make a decision about possible participation in a clinical trial is needed for the implementation of an online marketing communication strategy for German students. The focus of this research lies on achieving depth as it is important to know how German students perceive participation and how they prefer communication about a clinical trial, and why. Flexibility is necessary because the research for this project could only be conducted in a limited timeframe. Also, PRA is continuously looking to improve their current online communication strategy which means certain aspects may have changed or have already been added by the time they receive the research results. Verschuren & Doorewaard (2010) also mention that the results of a case study are often more easily accepted by the stakeholder due to their “everyday nature” (p.158). It is also easier to approach the target group as they are more likely willing to work with the researcher directly. The research will be mainly empirical which means that most of the data will consist of primary data obtained from field research. This data, however, will be supported by desk research.

Chapter 7: Research methodology

In order to gain knowledge that will help answering the research questions, and therefore achieving the research objective, a mixed-method research approach (Saunders et al., 2009) was used. This means that both qualitative and quantitative data are obtained. As the research is practice oriented, it is important that in-depth data is collected through a qualitative data approach. To obtain qualitative data a focus group was chosen as qualitative research method, however, in a case study data is often obtained through the opinion of only a few people. Therefore, in order to test if the opinion of a few people are representative for the whole population, it is important for this research that quantitative data was obtained as well. Therefore, the survey method was chosen as quantitative data method.

Qualitative data was obtained through a focus group. During a focus group a small group of people are asked to give their opinion about a certain topic in order to determine the opinion that can be expected from the larger population (Webster, 1985). During the focus group, open-ended questions based on the theoretical framework and (unraveled) key concepts (appendix 4) were asked to a group of 4 fourth year German international communication students from the Hanze university of applied sciences. The focus group was initially going to have 6 participants as this number was recommended to get a valid representation of the target group, but unfortunately 2 participants canceled and there was not enough time left to organize a new target group. As the 2 students who canceled were both male participants this also meant that possible differences between male and female German students could also not be analyzed. A full summary of the focus group discussion can be found in appendix 5.

The results obtained from the responses and discussions during the focus group were then further explored through an online survey. The survey was mainly used to test whether the opinion of the German students in the focus group was representative for the whole target group, and allowed for quantitative data. To calculate the scope of the survey a population description was performed. For the population description the student administration of the Hanze University of Applied sciences, RUG (Groningen University), and Hochschule Bremen of Applied sciences were contacted to get the total population of the research objects as of fall semester 2016/2017, which is 9108. For this particular calculation, a false margin of 7% was allowed. The level of

trust was set on 95% and the degree of dispersion on 50%. With a total population of 9108 the recommended scope of the survey is 192, which means the research has validity when at least 192 German students fill out the survey. The survey contains a total of 13 multiple choice questions and was distributed among German students from the Hanze University of Applied Sciences, the RUG and Hochschule Bremen through social media and e-mail. Unfortunately, only 107 German students filled out the survey which means that the survey is not fully reliable to test whether the opinions of the German students in the focus group are representative for the whole target group.

The research results obtained from the research objects 'German students from the Hanze University of Applied Sciences, the RUG and Hochschule Bremen' will not be analyzed separately but as one unit and will be referred to as 'German students'. The reason the research objects were separately chosen was to determine the scope of the research population.

7.1 Validity and reliability

In order to ensure validity to the research results, the questions for the focus group and online survey were derived from the research questions and research objective. This allowed for new insights and information to answer the research questions. The survey questions were a mix of questions derived from the research questions and answers obtained from the focus group in order to measure if these answers were representable for the whole target group.

To make the focus group a reliable source of information the same questions were asked to each participant. This way results could be compared to each other. It was also made sure that the participants had all grown up in Germany and only lived abroad for their studies. During the focus group notes were taken and the discussion was also recorded on a voice recording device to ensure accuracy so the researcher could go back and listen to important discussions more carefully.

To make the online survey a reliable source of information a population description was done to determine the scope of the survey. According to the calculation the survey would need at least 192 participants to ensure accuracy. Unfortunately, only a number of 107 did fill out the survey in the end despite several reminders that were sent to German students on Facebook and e-mail. Therefore, the survey is not a fully reliable source of information for this research. However,

since the survey is still representative for almost 60% of German students the results can still be used as a source of information to give an indication of the opinion of German students.

7.2 Limitations

The first limitation of the research was the lack of time for conducting the empirical research. as the timeframe for conducting field research was 3 weeks, only 1 focus group could be conducted. As some of the survey questions had to be delineated from the answers received in the focus group, the survey could only be distributed after the focus group. The underwhelming amount of responses of the survey, however, are not necessarily due to a limited amount of time, but rather due to the lack of commitment of the German students who were asked to participate.

For the focus group it was quite challenging to gather participants as these people all had to be available on the same date at the same time. This resulted in a focus group with participants who were in the same class and all studied the same subject. This could possibly result in a biased view of thinking, as it cannot be tested if German students who study different subjects would have given the same answers.

Another limitation for this particular focus group is that possible differences between genders cannot be analyzed. Originally a total of 6 students were going to participate, but unfortunately a few days before the event took place 2 students had to cancel. The original focus group consisted of 3 males and 3 females. This was done in order to see whether or not there was a difference between the opinion of German male and female students towards participation in clinical trials. As the students who canceled were both male students, it was decided that the opinion of only 1 male student was not going to be representative. Due to time restraints it was not possible to arrange the focus group at a later date and the idea of comparing the possible differences between genders was therefore dismissed.

Finally, when distributing the survey on social media it was sometimes deleted in groups with many German students. The reason given by the admin was that a survey was seen as spam and that spam was not allowed on these pages. The survey was then sent to members of the group through private message, but this did not generate the desired amount of responses. A possible reason could be that the survey was only available in English and not in German.

Chapter 8: Research results

In this section the research results will be analyzed and summarized per research area. The findings were collected through a focus group (see appendix 4 & 5) and an online survey (see appendix 6 & 5). As the survey was mainly used to find out if the opinions of the focus group are representative for the majority of German students, the results from the focus group will be stated first and will then be supported or contradicted by the survey results. As the survey was filled out by only 107 of the necessary 192 German students, the survey is only representative for 60% of the total target population. This means that firm conclusions cannot be made based on the survey results and these will therefore only be used as an indication. The survey was filled out by 50 male and 57 female participants. This indicated that the survey results are rather representative for both genders.

8.1 Research area 1: Online Communication

Which online communication channels, delineated from the theories reviewed on online communication, should PRA use in order to make German students aware of clinical trials and convince them to apply as a volunteer?

Sub-question 1.1. *Which online media channels could create awareness about clinical trials among the target group, according to German students?*

To answer this question, German students who participated in the focus group were asked about previous positive user experiences with online media channels as explained in the Channel Expansion theory by Carlson and Zmud (1999). All 4 participants stated that they use Facebook and Instagram on an everyday basis. 3 out of 4 participants said that they also use Google, e-mail, WhatsApp and Snapchat. The participants were also asked about the reasons why they use these channels on a daily basis and each participant answered that these channels allow them to stay in touch and to share content, such as messages, photos and videos with other users.

To find out if there is already some awareness about clinical trials among German students the 2nd question in the online survey was “Have you ever heard about clinical trials for medical research?” (figure 7).

Q2

Have you ever heard about clinical trials for medical research?

Multiple Choice

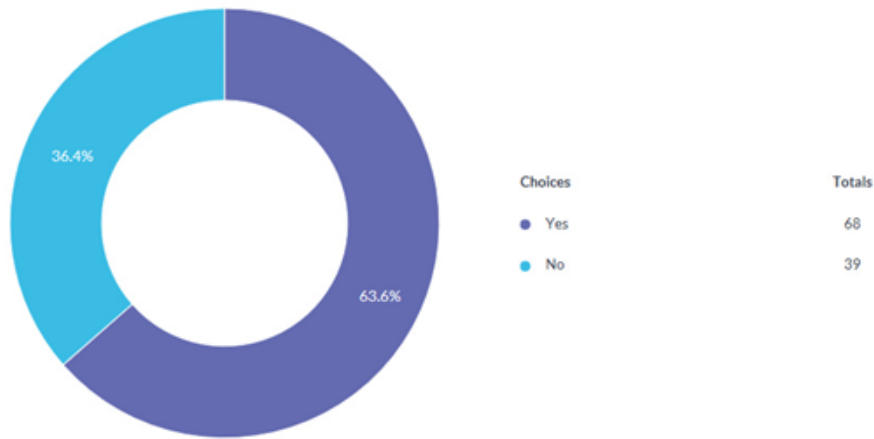


Figure 7 Online survey: Have you ever heard about clinical trials for medical research?

From the survey respondents 68 respondents have heard about the concept before and 39 respondents have not. Since the majority of the respondents do know about clinical trials, it could be relevant to spread awareness about PRA as a host company of clinical trials as much as clinical trials itself, as PRA barely has any German students volunteering for clinical trials, but apparently many are aware of the concept. The focus group participants said that they all had heard about clinical trials before, though not into detail, but had never heard of PRA.

To find out which online media channels would generate awareness among the target group about clinical trials, the participants were asked on which online media channels they were most likely to notice an advertisement from PRA about a clinical trial. All 4 participants answered that they would notice the advertisement on Facebook. 3 out of 4 participants say that they would also notice the advertisement on Instagram, however, Kristina Blenk (appendix 5.2) says that although she would notice the advertisement, she never actually pays any further attention to advertisements on Instagram. She does say that in addition to Facebook she would likely notice an advertisement on Google ads. Vivienne Duensing (appendix 5.3) also mentions that she only notices advertisements on Instagram if she takes a second look. Philipp Santos de Oliveira (appendix 5.4) is the third participant that says he would notice the advertisement on Instagram.

During the focus group discussion about online communication the reasons to why the participants would notice an advertisement about clinical trials on certain online communication channels was further explored. The participants were asked why they would all notice an advertisement on Facebook. Katharina Blenk answered that she thinks it is because she has a Facebook App on her phone and is therefore able to always scroll through Facebook. She also says that she usually pays attention to the content of Facebook, because the content is so diverse and because you can click on a link that provides you with more information immediately, as where Instagram just allows for posting pictures and giving likes and comments, and is therefore not as attractive to notice advertisements on as not a lot of information is provided. Vivienne Duesing adds that she thinks another reason is that Facebook is usually content shared or liked by friends and that therefore the content seems more reliable. The other 2 participants said to agree with these reasons.

Jacqueline Schmitz (appendix 5.1) said she would notice an advertisement on Facebook and ‘random websites’. During the discussion she was asked to specify what she meant with ‘random websites’ and her answer was that websites where you look to make money, such as blogs or websites that advertise jobs were meant with this. She then mentioned that for her those would specifically be websites where they advertise student jobs. Philipp Santos de Oliveira says that he thinks that a clinical trial would especially stand out on a website for student jobs, because a lot of money can be made in a relatively short time which he thinks generates students’ interest.

Katharina Blenk mentions that she would also notice an advertisement on Google ads, which are advertisements that show up when searching something through Google. According to her, students use Google every day so the advertisement would likely be noticed. At the end of this discussion all 4 students came to the conclusion that, according to them, German students would most likely become aware about clinical trials by PRA through advertisements on the following online media channels; Facebook, websites for students where jobs are advertised, and Google ads.

To find out if the opinion of the students in the focus group is representative for German students in general, the 8th question in the survey was “On which online communication channel(s) do you think you would notice an advertisement about clinical trials? Please select all that apply.”. As the focus group participants mentioned that they would likely notice an advertisement about clinical trials on more than one online communication channel, the survey respondents were able to select multiple answers.

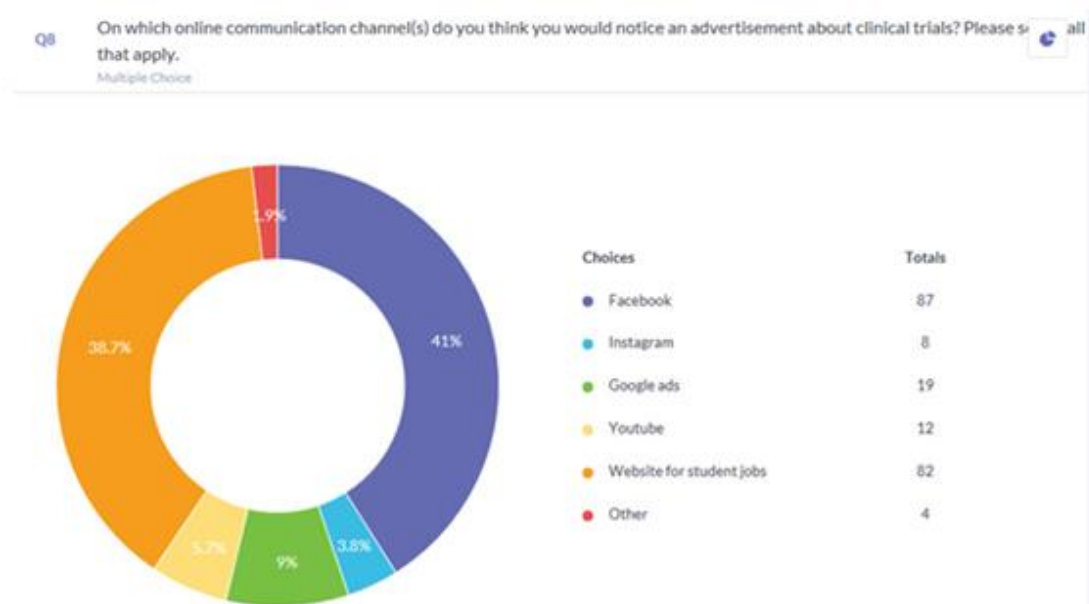


Figure 8 Online survey: On which online communication channel(s) do you think you would notice an advertisement about clinical trials? Please select all that apply.

In figure 8 it can be seen that 87 of survey respondents would notice an advertisement about clinical trials on Facebook, 8 on Instagram, 19 on Google ads, 12 on YouTube, 82 on websites for student jobs and 4 answered other. 3 of the 4 people who answered other said they would notice an advertisement through the Google search engine and 1 person answered ‘I would never notice an advertisement’. The majority of survey respondents seem to agree with the focus group participants that they would most likely notice an advertisement on Facebook and websites for student jobs, however, not so much on Google ads.

With these finding sub-question 1.1 “Which online media channels could create awareness about clinical trials among the target group, according to German students?” can now be answered. To find out if there was already some awareness about clinical trials among the target group German students were asked if they ever heard about clinical trials before. The majority responded that they heard about the concept before, though never heard of PRA as a company

that hosts clinical trials. All focus group participants have stated that they are most likely to notice an advertisement about clinical trials on Facebook mainly because the content is shared by friends, and seems therefore more reliable, and because Facebook allows for sharing diverse content that can be accessed through a mobile device through an app and is therefore always available. Another channel where advertisements about clinical trials by PRA are likely to be noticed by German students, and therefore generate awareness, is on a platform where student jobs are advertised.

Sub-question 1.2. *Which online media channels would the target group prefer when obtaining more specific information about clinical trials, according to German students?*

Once German students are aware and interested in possibly participating in a clinical trial by PRA, they will likely consult other online media channels in order to gain more information. The focus group participants were asked which online media channels they would consult if they were interested to participate in a clinical trial to gain more information. During the focus group 2 out of 4 participants, Jacqueline Schmitz and Vivienne Duesing, said that they would not want to consult online media channels, but rather have a face-to-face conversation with an expert or former volunteer about this topic. However, both mentioned that they would probably also look at Google and the company website first to obtain more information. They also said here that they would also not mind having a conversation over Skype or a chat box with a company representative. Both Jacqueline and Vivienne said that the main reason they would want a face-to-face conversation was for reliability reasons.

Both Katharina Blenk and Philipp Santos de Oliveira state that they would consult search engines to find more information about clinical trials and the company. During the focus group discussion, they mention that they would also consult the website. Part of the reason they consult these channels is to receive more information about clinical trials, but another important reason is for them to find out if the company is real and not a scam.

Though this question was originally asked to find out which online media channels are used by German students to get more information about clinical trials, it became clear during the focus group that all the students are initially much more focused on whether the company offering the trials is reliable rather than focusing on the content of the clinical trial itself. This means that besides offering detailed information about clinical trials, PRA should also provide detailed

information about the company in order to reassure German students that the trials are hosted by a professional organization that is one of the market leaders when it comes to medical research.

During the focus group discussion, the participants all mentioned they would consult search engines, most likely Google, and the company website in order to get more specific information about clinical trials. Katharina and Philipp also mentioned that they would consult Facebook, but not to look for information. Rather for finding a link to the company website. Jacqueline said that she would also like the option of consulting content that is not regulated by the company, such as blogs where former volunteers have written about their experiences with clinical trials at PRA.

To test if the opinion of the focus group participants would be representable for German students in general the 9th question in the online survey was “Which online communication channel(s) would you consult to get more information about a medical trial? Please select all that apply.”. The survey participants were again able to select more than one answer due to the fact that the focus group participants gave multiple options.

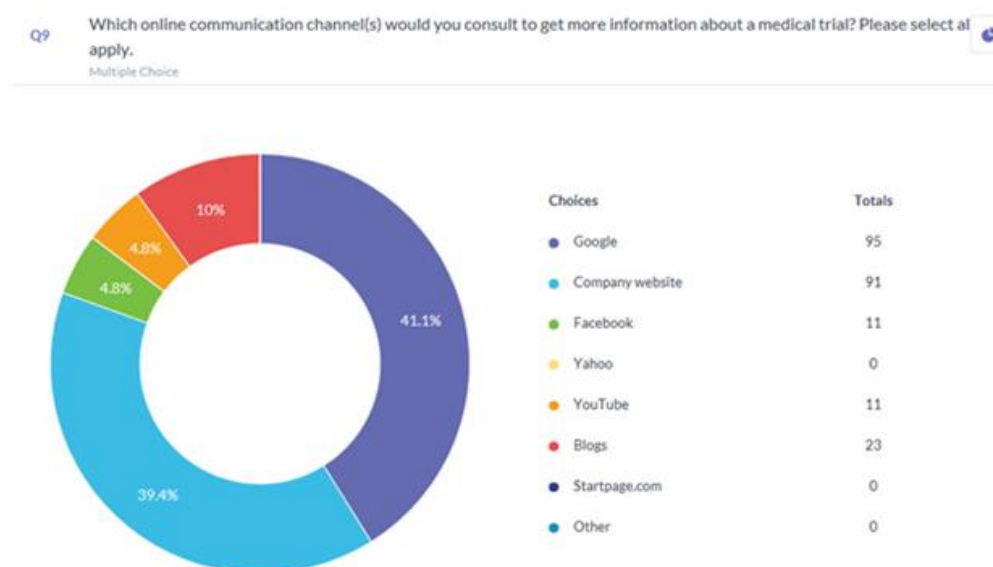


Figure 9 Online survey: Which online communication channel(s) would you consult to get more information about a medical trial? Please select all that apply

In figure 9 it can be seen that 95 of the survey respondents would consult Google to get more information about a clinical trial 91 people consult the company website, 11 Facebook, 11 YouTube, 23 blogs and no one would consult Yahoo, startpage.com or other online communication channels. The survey respondents largely agree with the focus group participants

as they are also most likely to consult Google and the company website for more information. 97.2% of survey respondents also said that the design of the website influences whether the company is viewed as trustworthy or not (see appendix 8.12)

With these findings sub-question 1.2 “*Which online media channels would the target group prefer when obtaining more specific information about clinical trials, according to German students?*” can now be answered. The focus group participants and survey respondents both agree that German students would most likely consult Google and the company website in order to obtain more specific information about clinical trials. However, during the focus group it was discovered that German students are most likely not only consulting these channels to obtain more specific information about clinical trials, but also to see whether or not the company is reliable.

Now the sub-questions have been answered, the research question “*Which online communication channels, delineated from the theories reviewed on online communication, should PRA use in order to make German students aware of clinical trials and convince them to apply as a volunteer?*” can be answered as well. Awareness about clinical trials among German students exists, but can still be increased as not everyone is familiar with the concept. Both the focus group and survey participants agree that awareness can best be created through advertisements about clinical trials on Facebook and other platforms where student jobs are offered. When German students are interested and look for more information about clinical trials to convince themselves whether or not to apply for a clinical trial, focus group and survey participants agree that Google and the website of the company that offers the trial is where German students will most likely try to find the information. When creating awareness online and providing information to convince people, PRA should know that awareness and reputation of the company is just as important to communicate about as the content of the clinical trials itself. The focus group participants mentioned that they would therefore like to have the opportunity to obtain information from a company representative directly through Skype or a chat-box to ensure the trustworthiness of the company.

8.2 Research area 2: Persuasion techniques

What aspects, delineated from the theories reviewed on persuasion techniques, are relevant when trying to persuade German students to participate in a clinical trial, according to the target group?

Sub-question 2.1: *What external factors play a role that decide whether or not German students have the intention, as explained in the planned behavior model, to apply for a clinical trial, according to the target group?*

To answer this question, German students who participated in the focus group were asked about possible motivations and restrictions that they would have if they were thinking about participating in a clinical trial. Following the planned behavior model (Fishbein & Ajzen, 1980) they were first asked about the reasons why they would be interested in participating in a clinical trial. 3 out of 4 participants mentioned the financial compensation as their main motivation. Jacqueline Schmitz said that she would do it because it was necessary to help people, but later mentioned that she would do it for the financial compensation as well. Vivienne Duesing added that she also likes the idea of being part of a future product. The other 3 participants agreed that this was indeed a nice side detail, but that they would not participate for this reason if there were no financial compensation.

Survey respondents were also asked what their motivation(s) would be to participate in a clinical trial (figure 10). 101 respondents would be motivated by the financial compensation, 14 by helping others, 4 by new experiences and 3 by other. From those who replied other one person mentioned that it would be to help research, one said not to be interested, and the third did not give a reason at all. These results show that the opinion of focus group participants and survey respondents are both mostly motivated by the financial compensation.

Q4 What would be the reason(s) for you willing to participate in a clinical trial? Please select all that apply.
Multiple Choice

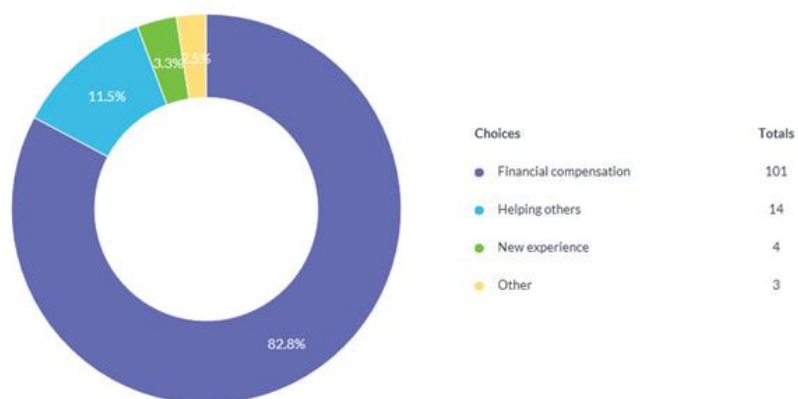


Figure 10 Online survey: What would be the reason(s) for you willing to participate in a clinical trial? Please select all that apply.

Focus group participants were also asked about the reasons why they would possibly not want to participate. They all mentioned that they have a general distrust toward medication. Jacqueline and Vivienne mention that they have a distrust toward putting medication in a healthy body. Philipp mentions distrust toward the pharmaceutical industry in general because he feels like they just want to make money rather than doing what is best for the people they help, and Katharina also mentions that she would not trust the medication without having any further knowledge about it. Philipp says that another reason for him to restrain from signing up to participating would be not knowing if he would pass the strict medical criteria and the fact that he does not have a lot of time due to his school schedule. Vivienne mentions that there is a difference between lectures at a Hochschule (University of Applied Sciences) and University. She says that students from a Hochschule are often required to attend classes and that lectures for university students are usually optional, which means that they would have the time to reside in the clinic for a longer period of time.

Q5

What would be the reason(s) for you not willing to participate in clinical trials? Please select all that apply.
Multiple Choice

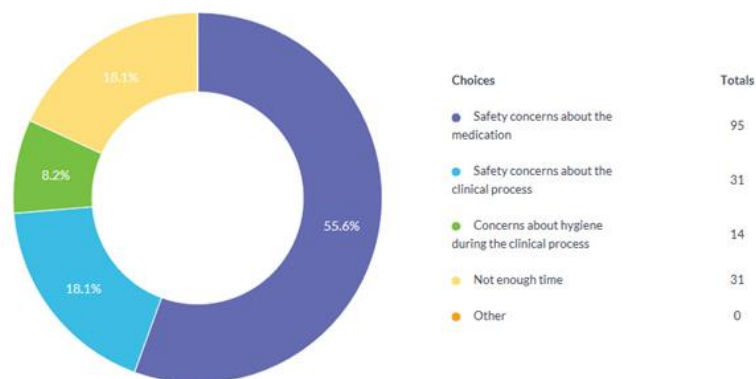


Figure 11 Online survey: What would be reason(s) for you not willing to participate in clinical trials? Please select all that apply.

The survey respondents were also asked about the reason(s) that would make them hesitant to participating (figure 11). 95 of them said safety concerns about the medication would be a reason to be hesitant, 31 say it would be safety concerns about the clinical process, 14 have concerns about hygiene during the clinical process, and 31 do not have enough time.

The survey results confirm that most German students would be hesitant to participate in a clinical trial due to the uncertainty of the safety of the medication and clinical process.

According to the focus group participants this issue can be overcome, but only if they are well informed about the risks and safety concerns that come with a clinical trial.

As it is also possible that external social factors, such as family and friends of a student, may have an impact on their decision to participate in a trial, the focus group participants were asked if the opinion of other people would influence their decision at all. They all agree that in the end it would be their own decision, but also mention that they would probably consult their parents to hear what they think about it. However, in the end the students' own opinion will still be more important than the opinion of parents. Katharina says that the opinion of her doctor will also be a deciding factor. If he would tell her not to do it, she would not participate. Vivienne says that she could probably only be convinced if a former volunteer had a positive experience or by a medical professional that tells her the risk is not very high. In the end her individual opinion would matter, but this opinion would be based on the advice of others.

Survey respondents were also asked if the opinion of others would be a factor when they make the decision to participate in a clinical trial. 15 respondents said that the opinion of their parents would influence their decision, 2 the opinion of friends, 32 the opinion of their doctor, 57 that only their own opinion is important and 1 person says other. The person who answered other said that no one could influence the decision as he or she is not interested in participating in the first place.

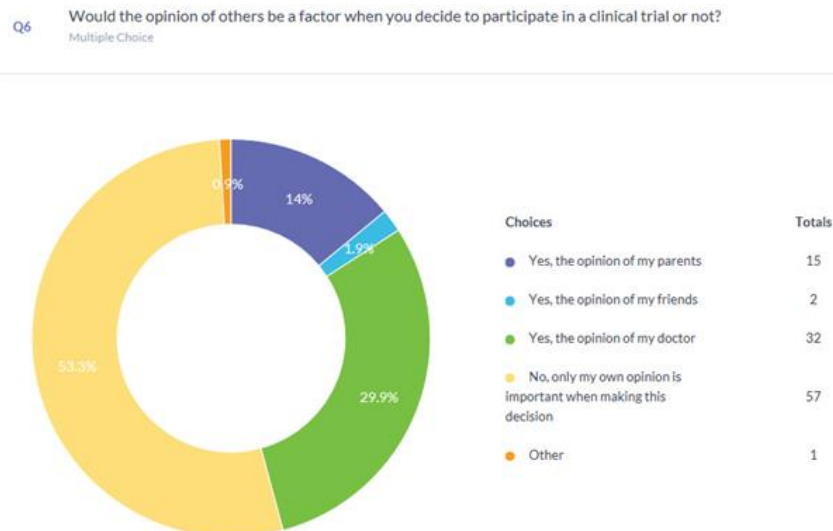


Figure 12 Online survey: Would the opinion of others be a factor when you decide to participate in a clinical trial or not?

These results confirm that some students would like to consult their parents or doctor first to get more information, but that in the end their opinion are prevail as to whether the student will decide to participate in a clinical trial.

With these findings sub-question 2.1 “*What external factors play a role that decide whether or not German students have the intention, as explained in the planned behavior model, to apply for a clinical trial, according to the target group?*” can now be answered. The results show that the main motivation German students have to participate in a clinical trial is the financial compensation. On the other side they also like that they are helping people and are contributing to research. However, this would not be the sole reason to participate. Most German students also admit to have safety concerns about the medication about what it will do to a healthy person. In addition, they are also scared of the unknown, such as what exactly happens during the clinical process. When German students are enough informed, however, about the possible risks of the medication (how likely possible side effects are to occur and why only healthy volunteers

are needed) and the safety and hygiene measures taken during the clinical process the perception of participating in a clinical trial could become more positive as they feel safer. With all these measures taken, the behavioral beliefs of German students are likely to be positive. When it comes to normative beliefs, students are likely to consult their parents and doctor for their opinion about clinical trials. Though these opinions are taken into consideration, they are never prevailing when the student makes the decision, as their own opinion is most important. External factors for normative beliefs are therefore not as important as internal factors. The external factors for control beliefs are mainly influenced by students' school schedule. In conclusion, behavior beliefs are positive when German students feel safe and informed about participating in a trial where they get paid for. Parents and doctors are likely consulted for information, but in the end the normative belief is only positive when students can convince themselves. The control belief is positive when the student's school schedule allows them to participate on the days the clinical trial takes place. When all these factors are perceived as feasible and positive, the perceived behavior will be positive as well which will likely give them the intention to apply for a clinical trial.

Sub-question 2.2: *What route of information is preferred when the target group processes online messages about clinical trials, according to German students?*

During the focus group the participants were asked how they would like to receive information about clinical trials. It became clear that short messages, through either text with a picture or a short video containing basic information about the concept works best to grab attention, but once they are interested they would search for more detailed information about the process, preferably in the form of a text.

Philipp said that a picture would grab his attention, and probably a short message that states how much money can be earned with participation in a clinical trial. Jacqueline and Vivienne mentioned that creative, colorful messages often catch their attention. They say, however, that this can also be a picture. Katharina says that a phrase that includes making money through helping people would catch her attention and that a picture would help her notice the phrase. The other participants agree that a phrase like this could catch attention but add that it should probably include some key words that refer to the financial compensation as well.

Once a message that mainly includes cues creates interest among the participants, they mention that they would like to get more specific information about the topic that includes detailed information about how a clinical trial works, how safe the medication is, how long a clinical trial is, how to possibly apply for a clinical trial, and information about the company to see if it is a reliable organization. When asked how they would like to receive this information they all come to an agreement that a text is preferred as it is easier to go back and read information again. They do mention though that a video can serve as a tool when creating awareness about clinical trials.

The survey respondents agree with the focus group participants as 89 people prefer to receive information through text and only 18 prefer video messages (figure 13).

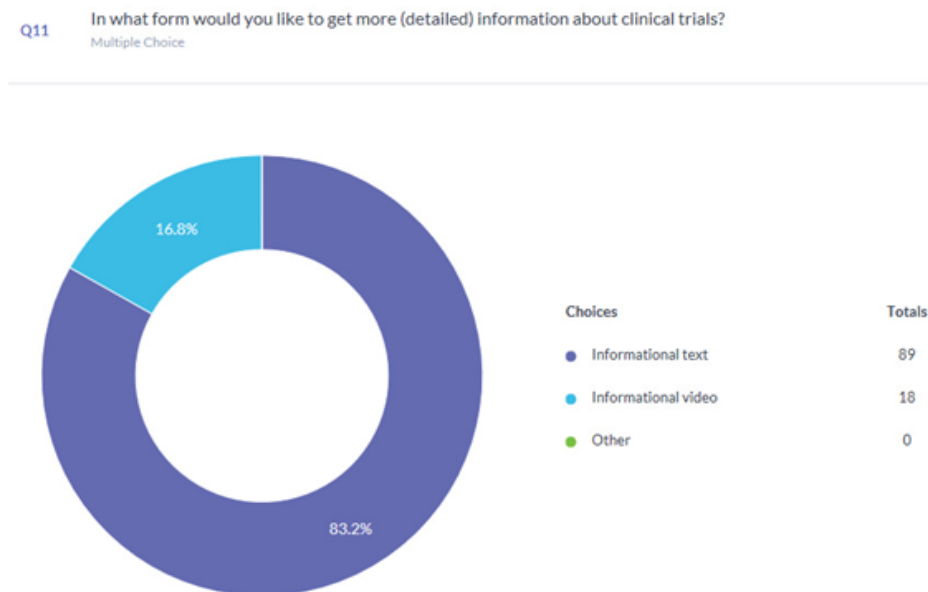


Figure 13 Online communication: In what form would you like to get more (detailed) information about clinical trials?

With these findings sub-question 2.2 “*What route of information is preferred when the target group processes online messages about clinical trials, according to German students?*” can now be answered. The results from the focus group indicate that German students prefer cues, such as pictures and key words, when receiving messages about clinical trials in order to become aware. Therefore, the peripheral route is preferred when processing advertisements meant to become familiar with the concept and company. Once interest is aroused, however, German students tend to process information through the central route. As involvement increases, more detailed information about clinical trials as well as the hosting company is required.

Sub-question 2.3: *Which persuasion principles are useful for PRA when communicating about participating in clinical trials to the target group online, according to German students?*

Though only 3 of Cialdini's (2000) persuasion principles (principle of commitment, social proof principle and the principle of authority) were recommended in the theoretical framework for PRA to use when trying to persuade German students to participate in a clinical trial, the focus group were shown all 6 principles, and were asked which principles they thought were relevant for persuading students to participate in a clinical trial. The students decided that the principle of liking, reciprocity principle and the principle of scarcity would not work for clinical trials, which confirms that the initial observation of the researcher to leave these principles out was right. The German students were then asked to rank the principle of commitment, social proof principle and principle of authority. The principle of commitment was ranked least important, the principle of authority second important and the social proof principle most important.

First the principle of commitment was discussed. All four students agree that this plays a role when first looking at participating in a clinical trial. They think that most people would prefer to do a short trial first to 'test the ice' with the company and the clinical process. There is however a difference between the opinion of Philipp and the other participants. Philipp says he would consider doing a longer more difficult trial if it were to pay very well, but the other participants say that they would never do a long trial the first time no matter how well it pays.

The second principle that was discussed was the authority principle. All four students agree that this principle could be very effective when trying to persuade German students as they believe Germans look up to figures of authority, and like to consult these for information. Katharina says that if she were to think about participating she would go to her own doctor and ask him if he has more information about the possible risks. She would trust her doctor more than the company hosting the trials as she feels like her doctor has her best interest. Jacqueline, Vivienne and Philipp both agree that they would trust the opinion of a doctor. They say it does not necessarily have to be their own doctor, but it could also be a doctor who works in the clinic or in a hospital. Jacqueline mentions that the doctor does have to come over as trustworthy and not as an actor playing a doctor. She says she would also like to have the option of looking up the reputation of the doctor on Google, for example.

The social proof principle was ranked number one by all of the students, and throughout the entire focus group discussion participants mentioned several times that they would trust the opinion of someone who has already participated in a clinical trial before. All four students agree that the social proof principle would be especially persuasive to them if they were not sure about participating in a clinical trial. They all agreed that they are most likely trust someone they feel connected to. This is most likely someone their age that they can identify with. Vivienne names another student like her as an example. When asked what they would like to hear from this person the following information was mentioned: their own doubts before participating in a clinical trial (such as the safety of the medication, is the company trustworthy?), their experiences in the clinic (do they care about the volunteers? did they experience any side effects from the medication?), and if they would want to participate again. Katharina also mentions that the information from former volunteers should be honest and transparent. She thinks it would be more trustworthy if both positive and negative (if any) experiences are shared. Jacqueline says that another option could be a patient that would be using the medication that is tested during the trial. This would confirm the feeling that with participating not only the pharmaceutical industry profits from it, but also patients who will use the medication.

Survey participants were also asked if anyone could convince them by informing them about the process, risks or benefits of participation in a clinical trial (figure 14). 39 people answered that a doctor could convince them, 94 a former volunteer, 2 a company representative, 2 someone from the pharmaceutical industry, 21 a patient who uses medication every day, and 6 people answered that no one could convince them.

Q7 Could any of the following people possibly convince you when informing you about the process/risks/benefits of participating in a clinical trial? Please select all that apply.
Multiple Choice

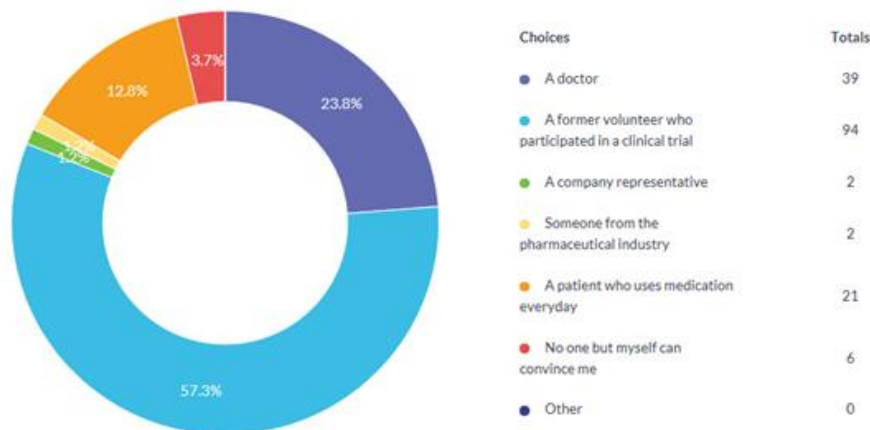


Figure 14 Online survey: Could any of the following people possibly convince you when informing you about the process/risks/benefits of participating in a clinical trial? Please select all that apply.

The survey respondents agree with the focus group participants that a previous volunteer is most likely to convince them, and therefore support the opinion that the social proof principle would be most useful to convince German students to participate in clinical trials. The authority principle is also voted as useful by survey respondents as many could be convinced by a doctor.

With these findings sub-question 2.3 “Which persuasion principles are useful for PRA when communicating about participating in clinical trials to the target group online, according to German students” can now be answered. Both focus group participants and survey respondents agree that the social proof principle, in the form of a former volunteer that German students can relate to, would be most successful in convincing them. Though not as convincing as the social proof principle, focus group participants and survey respondents do think that the principle of authority can be useful as well when trying to convince German students to participate in a clinical trial as Germans are likely to base their decisions on expert opinions. For clinical studies a reliable doctor is recommended as the figure of authority. Finally, the principle of commitment was voted a useful persuasion principle by the focus group as they believe most people would more likely sign up to participate in a short trial first, and then if the experience is positive, be more approachable for a longer trial.

With the sub-questions being answered, the research question “*What aspects, delineated from the theories reviewed on persuasion techniques, are relevant when trying to persuade German students to participate in a clinical trial, according to the target group?*” can now be answered as well. The main motivation German students have to participate in a clinical trial is the financial compensation, however, they also like the fact that they are helping people and contribute to research. In order for German students to have the motivation to apply for a clinical trial they should feel comfortable about the host company and the fact that taking the medication will not harm them. They should also be enough informed about the clinical process. The decision to apply for a trial will ultimately be their own, but students are likely to consult their parents and doctor as well. Another factor that plays a role when students decide whether or not to participate in a clinical trial is their school schedule. Focus group participants mentioned that students from a Hochschule often have required lectures as where University students mostly have optional lectures, and therefore University students are more likely able to participate in longer trials. When it comes to information processing it was found that the peripheral route is preferred by German students when they are made aware of clinical trials, and that once they are interested information will be processed through the central route. Finally, German students agree that the social proof principle, in the form of a former volunteer their age that talks about his or her experiences during the clinical trials and about the doubts they had before the clinical trial, would be most successful in convincing them. The authority principle in the form of a reliable doctor would also be convincing according to German students. Focus group participants also agree that the principle of commitment is applicable when it comes to clinical trials as most would want to start with a short trial and then, when the experience is positive, gradually participate in longer trials.

8.3 Research area 3: German culture

How do cultural aspects, delineated from Hofstede’s and Trompenaars & Hampden-Turner’s cultural dimensions, influence the opinion German students have towards participation in clinical trials, according to the target group?

Sub-question 3.1: *Which of Hofstede’s cultural dimensions play a role when German students form an opinion about participation in clinical trials?*

During the focus group discussion, it became clear that the participants are very high on uncertainty avoidance. It was mentioned many times that a lot of information about the company would be required for them to even think about participating in a clinical trial, as they assume it would be a scam. The participants also said several times that they would want to be greatly informed about the possible risks and side effects of the medication. PRA is currently in the process of translating their website into English, but not yet into German as German volunteers must speak English in the clinic. When the focus group participants were asked if they think this is a good idea in order to filter out Germans who do not speak English sufficiently they all disagreed. Katharina, Vivienne and Jacqueline said that they would probably not even read the website if the information was not available in German, though their English is very good. According to them this also has to do with the fact whether or not the host company seems trustworthy.

The survey respondents were also asked if the company that hosts the clinical trials would seem more trustworthy if the information was available in German besides English. 78 respondents answered yes, and 29 respondents answered no. These results confirm that the majority of survey respondents agree with the opinion of the focus group participants.



Figure 15 Online survey: Would the company seem more trustworthy to you when they offer all the information about clinical trials on their website in German (besides English)?

Survey respondents also responded to other questions that indicate that they would have safety concerns about the medication taken during a clinical trial, and the clinical process in general (figure 11). Another question was asked to survey respondents about which piece of information they would look for first in an online message about a clinical trial (see appendix 8.10) and respondents answered that they would look for which illness the medication will be tested for, and for possible side effects the medication might have. This indicates that survey respondents agree with the focus group respondents that uncertainty avoidance plays a role when German students make the decision to possibly apply for a clinical trial.

As focus group respondents mentioned that they are also concerned about their health and possible risks of the medication after participation in a clinical trial, the fact that Germans tend to be long-time oriented should also be taken into consideration when trying to convince German students to participate in a clinical trial. When informing German students about a particular trial, PRA can comfort them by telling them when the medication is expected to be completely worked out.

The fact that the focus group participants said that they make the final decision to participate in a clinical trial themselves, and that survey respondents confirmed this answer (figure 12) also confirms that Germans tend to make individual decisions rather than collective ones. No signs of any relevance in regard to clinical trials for the cultural dimensions; power distance, masculinity and the fact that Germans tend to be restraint were observed by both the focus group discussion or survey responses.

With these results sub-question 3.1 *“Which of Hofstede’s cultural dimensions play a role when German students form an opinion about participation in clinical trials?”* can now be answered. Through observations and discussions during the focus group it became clear that German students are very high on uncertainty avoidance when it comes to clinical trials. Especially in regard with the trustworthiness of the company hosting the clinical trial, and the safety and risks of the medication. For this reason, German students prefer a lot of detailed information about these subjects when forming an opinion about a clinical trial, and whether or not they would want to participate. The dimension of Germans being future oriented also plays a role, as German students do not only want to know about the possible risks taking medication has during the trial itself, but also that their current action of participating in a clinical trial will not hurt

their body in the future. German students also form their opinion and make a decision about participating in clinical trials individually. This means that the decision about participation will be made based on the opinion of the students, and not the opinions of family or friends, for example.

Sub-question 3.2: *Which of Trompenaars & Hampden-Turner's cultural dimensions play a role when German students form an opinion about participation in clinical trials?*

As the dimension of individualism vs. communitarianism and time orientation from Trompenaars & Hampden-Turner (1997) are the same as Hofstede's (1980) individualistic vs. collectivistic and time orientation dimension, it was already explained that these dimensions play a role when German students form an opinion about participating in clinical trials and why.

Focus group participants said that the decision to participate in clinical trials is a rational one. Katharina said that she would want to review lots of facts and figures to see how likely it is that participants experience any side effects based on information from previous trials. Philipp also mentioned that he would base his decision based on statistics and likeliness. The fact that German students from both the focus group and online survey mention the financial compensation as the most important reason to participate in a clinical trial, rather than helping others, also proves that rational aspects are more important than emotional ones when it comes to participating in clinical trials. Based on this information it can be concluded that the fact that Germany is a specific oriented culture plays a role when German students form an opinion about clinical trials. Specific oriented people analyze elements based on facts separately to put them all together again at a later time in order to consider the pros and cons. If German students see more pros than cons when participating in a clinical trial, they are more likely to apply for one.

The fact that Germany tends to be a universalistic society also plays a role, as both focus group participants and survey respondents say that they would want to make sure the clinical process is safe. Universalistic individuals highly value that rules are being followed, so German students expect that the rules that apply for the clinical process are followed. As PRA already has strict

rules that must be followed during the clinical process they could make these rules available to German students as well when presenting them with general information about clinical trials.

With these results the sub-question 3.2 “*Which of Trompenaars & Hampden-Turner’s cultural dimensions play a role when German students form an opinion about participation in clinical trials?*” can be answered. German students tend to make decisions individually, and base these on rational facts rather than feelings. German students are also universalistic and highly value rules, and the fact that these are being followed.

Now the sub-questions have been answered, the research question “*How do cultural aspects, delineated from Hofstede’s and Trompenaars & Hampden-Turner’s cultural dimensions, influence the opinion German students have towards participation in clinical trials, according to the target group?*” can be answered as well. German students tend to avoid situations that are unfamiliar to them. To overcome this, they need to be given a lot of information about the subject. The motivation for German students to participate in a clinical trial is rational rather than emotional. Therefore, information should include lots of facts, and if possible also figures, about the safety of the medication taken during the clinical trial, possible side effects that participants could experience and how likely the chance is that they will, and about the rules that should be followed by the staff and participants during the clinical process. As German students are also concerned what the consequences of participation in a clinical trial has for the future, PRA should also be able to reassure them that the medication does not have any long term (side) effects. Since German students tend to be very individualistic the decision will most likely be based on the information they collect themselves. Though external sources are consulted to collect this information, the decision of German students to participate in a trial is made independently.

Chapter 9: Conclusion and Recommendations

Based on the research results collected from the research objects through the focus group and online survey a final conclusion will be drawn. As there were several limitations to this research (see *limitations*, 7.2) the following conclusions may have been different if the limitations had not been there. Therefore, these conclusions are an indications of the opinions German students have regarding clinical trials based on the available research results and are not necessarily true for all German students. Recommendations will be made to PRA for the design of an online marketing communication strategy for German students that will raise awareness and convinces them to act by filling out a volunteer application to participate in clinical trials based on the final conclusion. Conclusions will first be made separately for each research area, and will then be interconnected with each other in a final conclusion. The recommendations will follow after the conclusion.

Online communication

The media richness theory by Daft & Lengel (1986), and the channel expansion theory Carlson and Zmud (1999) were used to find out which online communication channels are richest among German students. This information is necessary in order to create an effective online communication strategy that will attract German students to become interested in participating in clinical trials. The four zones model by Tuten & Solomon (2014) was consulted in order to get an overview of the different communication channels that can be used for creating awareness and involvement. According to the empirical research results that were obtained through the target group directly, German students are most likely to become aware through advertisements on Facebook or a website where jobs for students are offered. When German students are actually interested in participating in a trial and are looking for more information about the trial they are most likely to consult Google and the company website. As students might be worried that information that comes from the company that offers the clinical trial is slightly biased, German students also prefer content created by someone that has no direct ties to the host company.

Persuasion techniques

The planned behavior model (Fishbein & Ajzen, 1980) suggests that behavior is linked to beliefs that can be influenced by external factors. The external factor that most likely has a positive influence on the behavior beliefs of German students is the financial compensation. German students also like the fact that they are contributing to research and that they are helping other people. Safety concerns about the medication and clinical process is something German students worry about when it comes to participating in a clinical trial and should therefore be addressed and explained by PRA in order for the behavior beliefs toward clinical trials to be positive. German students are not highly influenced by external normative factors as they tend to be very independent and prefer to make decisions on their own. However, parents and doctors are likely to be consulted when German students are collecting information to base their opinion on. The external factor that has an influence on the control belief of German students is their school schedule. This is likely more prominent for students of a Hochschule (University of Applied Sciences) than for University students, though, as University students are more likely to have optional lectures, and the lectures at a Hochschule are often required. The Elaboration Likelihood model by Petty & Cacioppo (1986) suggests that information can be processed through either the central or peripheral route. German students are likely to prefer receiving information that is meant to create awareness through cues, such as catchy phrases and visuals, and therefore the peripheral route is preferred. Once interested, however, German students most likely prefer receiving specific information related to the clinical trial and hosting company through the central route. In order to persuade students that are doubting to participate in a clinical trial the social proof principle, principle of authority, and principle of commitment (Cialdini, 2000) could best be consulted. For the social proof principle, a former volunteer who German students can relate to and tells them about his or her experiences during the clinical trial would probably be most convincing. For the principle of authority, a doctor who explains something about the process is seen as most convincing. The principle of commitment is relevant as German students are most likely to participate in a shorter trial the first time, and only participate again if the first experience was positive.

German culture

From the cultural dimensions that Hofstede (1980) and Trompenaars & Hampden-Turner (1997) applied to the German culture, uncertainty avoidance, individuality, future oriented, specific, and universalism are most relevant when it comes to trying to convince German students to participate in a clinical trial. German students tend to avoid situations that are unfamiliar to them, and should therefore be supplied with information about the safety of the medication taken during the clinical trial, possible side effects that participants could experience and the likelihood of side effects occurring, and about the rules that should be followed by the staff and participants during the clinical process. PRA should also be able to reassure German students that the medication will not have any long-term side effects. As German students prefer rational information, the information presented to them should mainly consist of facts and, if possible, figures in order for them to put all the little pieces of information together where their final opinion will be based on.

Final conclusion

Based on the research results, it can be concluded that an online marketing communication strategy to make German students aware about clinical trials and convince them to sign up for one, should be divided into creating awareness about PRA and clinical trials, and informing and persuading students once they are interested. To create awareness PRA will be most successful when trying to reach the target group through Facebook and web pages where student jobs are advertised. Online messages to create awareness should include cues such as a visual and a phrase that catches attention. As the main trigger for German students to participate is most likely the financial compensation, this should be included in online messages to grab attention as well. As German students are likely to be hesitant about the trustworthiness of the company that hosts the clinical trials, PRA should also communicate relevant information about the company. When students are not yet aware they are most likely not interested enough to read or watch any in-depth material about the company. Therefore, PRA could create a short introduction video about who they are and what they do. This video can be shared on Facebook through a Facebook campaign in order to reach German students in Germany and the Netherlands. The online messages that include a short text with a picture to create awareness can be shared with the target group through the Facebook campaign as well. Even though most German students likely know

English, content seems to be more trustworthy to them when available in German. Content should also be culturally adapted. German students mentioned that content does not look trustworthy when everything looks too perfect. A doctor, for example, looks more credible when the person is older and looks like he or she has a lot of experience, according to German students.

Once the online awareness strategy has succeeded in creating actual interest, the marketing communication strategy should go more into depth. In order to find in-depth information about clinical trials, German students are most likely to consult Google or the company website. As German students can be made aware through Facebook, PRA could already include a link to their website in the Facebook messages. The same goes for any other advertisements PRA does on other websites where student jobs or experiences are promoted. The content on the website should include many facts and details regarding the safety and possible risks and side effects of the medication, and how exactly the clinical process works. It should also include experiences from other volunteers, as German students say that a former volunteer who had positive experiences with participating in clinical trials would be most likely to convince them to apply for one. To make sure German students will find the desirable information on Google, PRA could look into SEO (Search Engine Optimization). This means that when German students type in key words (such as clinical trial, medical research etc.) either the PRA website or other content controlled by PRA will pop up on the first page. All information on the website should be available in German as German students will view the information as more trustworthy.

Based on the research results and conclusion the following recommendations have been suggested:

- Set up a Facebook campaign that targets Germans between age 18-25 in German cities with high student populations to make German students aware of clinical trials by PRA.
- Create a separate Facebook page for Germany where all content is offered in German.
- Create different content about clinical trials and PRA that include a visual and a catchy phrase that emphasizes that a large amount of money can be made in a relatively short time, and that by doing this someone is helping other people and contributing to important research to catch the attention of German students and make them aware of clinical trials and PRA.
- Make a short introductory video about PRA to show German students that the company is real and cares about the safety and well-being of its volunteers.
- Invest in SEO optimization on Google in Germany for key words such as ‘clinical trial’ ‘medical research’ ‘company that does clinical trials’ ‘PRA Groningen clinical trials’.
- Create or collect volunteer testimonials for the website of student-aged individuals that include a picture and detailed description of fears and doubts these volunteers had before participating, and if they would participate again now that they have done it once.
- Use many facts and figures when communicating to German students online about the process of clinical trials and their safety.
- Hire a German speaking employee or intern for the online communication with German volunteers.

PRAHEALTHSCIENCES



Advisory report PRA

Word count: 4617

Chapter 1: Introduction

PRA Health Sciences Groningen wants to start recruiting German students as volunteers for clinical trials, but lack an online marketing communication strategy for this group in order to make German students aware of clinical trials by PRA and to convince them to participate. Therefore, the objective of this research was for the online marketing communication strategy to create both awareness among German students, and convince them to fill out a volunteer application to participate in clinical trials.

In this advisory report the findings and conclusion of the research areas online communication, persuasion techniques and German culture will be translated into a design of an online marketing communication strategy for German students. It was found that creating awareness about clinical trials among German students requires a different approach than convincing them to actually participate in a trial. Therefore, this report will first elaborate on creating awareness by advising on and implementing a Facebook campaign targeting German students, and will then elaborate on how to organize the website in order to convince German students to fill out a volunteer application to participate in a clinical.

Besides advising on how to use the recommended online media channels and about the content that should be placed on these channels, this report will also advice PRA how to communicate internally about policy changes related to the online marketing communication strategy and how to facilitate this. Finally, a realistic and feasible planning and budget overview will be provided.

As the research results lack some validity due to limitations to the focus group and survey method, the results and conclusion of the research report are an indications of the opinions of German students and are therefore not necessarily true for the whole target group. The advisory report, however, is only based on these outcomes as there was no time to perform additional research. If PRA wants more specific knowledge about the behavior of German students in regard to clinical trials, it is advised that additional research will be performed by the company.

Chapter 2: Online Marketing Communication Strategy

2.1 Facebook campaign

More and more public healthcare organizations are using social media as their main source of communication with their audience, as co-creating content and immediate interaction increases the authenticity of the organizations' content and does therefore seem more trustworthy (Schein et al., 2010). The research results and conclusion show that trustworthiness of both the company and the clinical process itself are very important for German students when they consider participating in a clinical trial. According to Carlson and Zmud (1999) people are more likely to use a communication channel that they have had positive user experience with. The research results and conclusion indicate that German students are most likely to become aware about a clinical trial by PRA through Facebook advertisements, which indicates that the majority of German students use Facebook. For this reason, a Facebook campaign was recommended to create the initial awareness about PRA and clinical trials, but also for already steering German students to apply for a clinical trial. As the research results and conclusion show that German students are more inclined to pay attention to content online and view information as more trustworthy when provided in German, it is advised that PRA creates a separate Facebook page for this campaign (PRA Deutschland) where all content is provided in German.

The structure of the Facebook campaign will follow the steps recommended by Facebook (2016).

Step 1: Set an objective

In order to measure whether the Facebook campaign has been successful, an objective must be set by PRA to know exactly what they want to achieve. As the online marketing communication strategy does not only have the goal to create awareness, but also to convince people to fill out a volunteer application, it is advised that PRA chooses either the objective of clicks to their website or website conversions (figure 16).

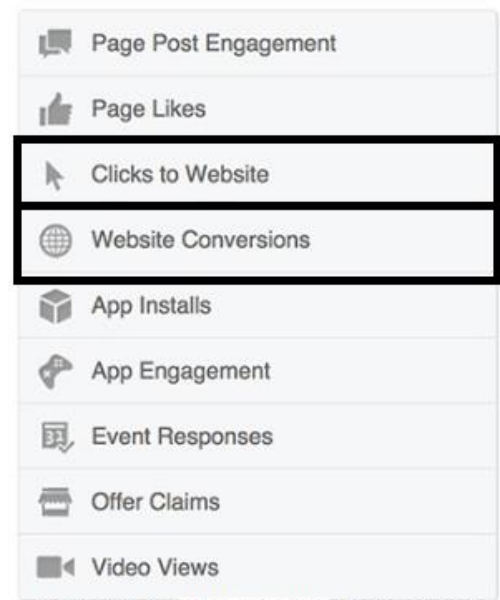


Figure 16: Possible objectives for Facebook Campaign

By setting the objective of being able to see the amount of clicks from a Facebook advertisement to the website, it can be monitored if the current content that is used to create awareness actually creates interest among German students. This way it can also be evaluated which type of ads are successful creating interest among clinical trials, and which not.

With website conversion it can be seen what actions are taken by people on the company website. This is very helpful for PRA as they can evaluate whether the Facebook campaign aids to their goal of getting German students to fill out a volunteer application for a clinical trial.

Step 2: Determine target audience

In order for the advertisements to show up on the Facebook timeline of the right people, a profile must be created of the audience who the advertisements will be shown to. As PRA is planning to specifically advertise to German students it is advised that besides age and gender, PRA also adds cities with high student populations or even specific universities to their target profile. As this will be PRA's first ever Facebook campaign targeting students in Germany, it is advised that they try out both a profile for an ad that only includes the city, and one that includes both the city and specific universities in that city. When the target audience is just set on age, gender and city the benefit is that it will reach a lot more people. However, the reason that PRA is specifically targeting German students is because they are more likely to speak and understand English which is necessary for German volunteers to participate. Therefore, adding a university to the search as well will probably generate in more students responding. If PRA, however, already generates just as much student responses when the target audience is set on gender, age and city it is advised to just use this as the target profile for all the ads in the campaign as there is a chance that not every student lists their school in their personal information on Facebook.

During a client meeting where the preliminary results were presented to PRA, a target profile for a Facebook campaign was shortly discussed. PRA stated not to know which German cities have which Universities and therefore a list of German cities with their universities was requested by marketing director Arnaud Hoving. Since a target profile that includes universities is still an experiment, the list currently only includes university cities that are in closest in proximity to Groningen as it is believed that these people would be more likely to try a clinical trial. The following list only includes Universities and Hochschulen, and does not include all the separate faculties that are part of these.

City	Universities	Total student population
Bremen	University of Bremen, Hochschule Bremen, Jacobs University Bremen	27.244
Hamburg	University of Hamburg, Hamburg University of Technology, Hamburg University of Applied Sciences, HafenCity University Hamburg	70.000
Hannover	Leibniz University Hannover, Hochschule Hannover, Hochschule für Musik, GISMA Business School	35.288
Düsseldorf	Heinrich Heine University, Hochschule Düsseldorf, Robert Schumann Hochschule,	30.321
Köln	University of Cologne, Cologne University of Applied Sciences, German Sport University Cologne, Academy of Media Arts Cologne	72.000

Since the Facebook campaign will experiment with multiple ads with different content, the target audience will have to be adjusted to each ad (e.g. gender, city, University or Hochschule). Age is the only thing that is always the same. The age that should be applied to the target profile is 18-25 as this is the average age of college students who per sue an undergraduate or graduate degree in Germany.

Step 3: Bidding

Not all advertisers are able to get to advertise their ads to their target audience on Facebook. As Facebook is trying to balance creating value for advertisers by exposing their ads to their target audience, and at the same time provide a positive user experience for people to not be overwhelmed with advertisements, Facebook holds auctions where advertisers bid ads against other advertisers who are targeting the same audience (Facebook, 2016). The factors that determine which advertiser wins the auction are; the advertiser bid, the quality and relevance of the ad for the target audience and the estimated action rates. In order for PRA to be successful while bidding against other advertisers, it is advised that they work together on this with a professional marketing agency that is familiar with Facebook campaigns designed to target German audiences.

PRA currently works together with the marketing agency Zuiver digitaal on their Facebook campaigns in the Netherlands. On their website Zuiver digitaal states to have a strong

international network and that for international campaigns they work closely together with their partners in other countries (Zuiver digitaal, 2016). As PRA's marketing director Arnaud Hoving said during the client meeting that they have had very positive experiences with Zuiver digitaal while working together on online campaigns so far, it is recommended that PRA continues to work with and take advice from Zuiver digitaal when bidding during auctions for their Facebook campaign targeting German students.

Step 4: Try different ads with different content

In order to find out which type of messages work best to create interest about clinical trials among German students, it is advised that in the beginning of the campaign different message contents will be tested to determine which generates the most responses. The successfulness of each message content will be measured by the amount of clicks to website and website conversions.

The results and conclusion of the research report indicate that German students are likely to process information through the peripheral route as explained by Petty & Cacioppo (1986) in the Elaboration Likelihood model when they are not yet aware of clinical trials. However, the goal of the Facebook campaign is not only to make German students aware but also for them to take action by clicking to the website, and then eventually apply for a clinical trial. Research results and conclusions also show that once German students are aware they process information about clinical trials through the central route. the type of information they are looking for are rational messages that include facts.

Victor Yucco (2014) advises how the model can be applied to design. In order to put the Elaboration Likelihood Model into practice to persuade people through online marketing, Yucco mentions that the following elements should be used effectively:

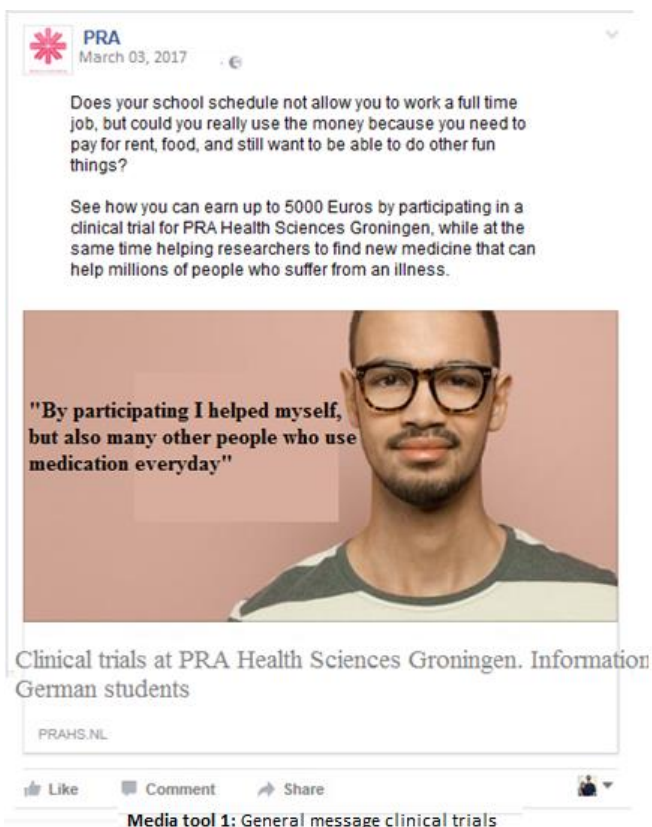
- Message: Information, what's being said, content, marketing efforts
- Design: Visuals, navigation, and layout
- Delivery: user experience, speed, rewards

First, the type of information should be decided on. Once this is known, a visual and layout should be created that complements the message content. The research results show that German students are more likely to notice a Facebook advertisement when a visual is included. It is

therefore important that the visual is appealing to German students so they are encouraged to read the rest of the message.

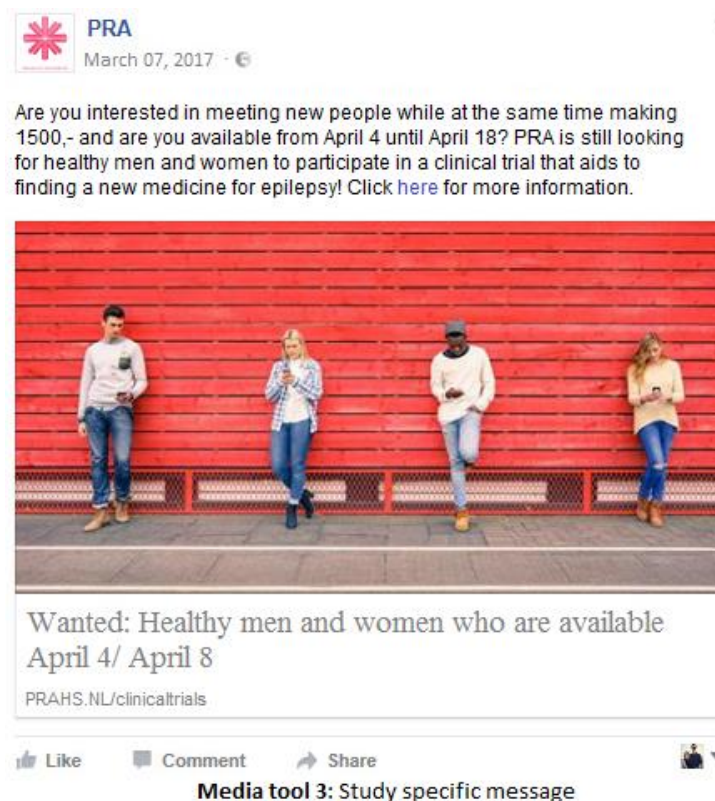
It is recommended that PRA creates 4 different type of messages for Facebook ads relating to clinical trials in order to test which content generates the most positive responses.

The first ad is introduced to provoke interest among German students about clinical trials in general (see media tool 1). These type of messages should include some rational cues such as the fact that money can be made and that at the same time something good is being done and should include content German students can relate to. As not a lot of information is being provided, students are more likely to read the short message and since the information is attractive and reliable it is expected that they will click on the link to the website, which means the objective of the Facebook campaign will be achieved. The visual should also create interest. For this message a neutral photo of someone who students can relate to (based on age) is recommended accompanied by a phrase that is meant to evoke people to read the written message.



The second ad (see media tool 2) is advised because the research results and conclusion showed that German students are more likely to do something if someone they can relate to has done it too.

The third type of ad that is advised is one that PRA is already familiar with, as this is how they primarily advertise through Facebook in the Netherlands. Namely, promoting specific trials individually (see media tool 3). The main reason PRA focuses on this so much, according to marketing director Arnaud Hoving, is because the sponsors of these trials provide a marketing budget. The big pro of advertising trials individually is that it does not cost PRA any money, however, the con is that German students who are not familiar with clinical trials in the first place might not be interested as the advertisement lacks a proper introduction to clinical trials and does not include any reliable information. In order to make these advertisements somewhat relatable, PRA could provide a visual of someone who is student aged and include an aspect that students like such as meeting new people, for example.



Media tool 3: Study specific message

The fourth type of ad that is advised is one that introduces PRA as hosting company since the research results show that many German students are likely to have a distrust to the company. A short introductory video is therefore recommended. Yoav Hornung (2014) who produces video marketing content for companies, says that introduction videos are most successful when they last less than a minute. According to his analysis, introductory videos will receive most views when they are between 0 and 30 seconds long. As the research results and conclusion show that Cialdini's (2000) authority principle is relevant, most likely in the form of an older doctor, it is advised that one of the older doctors of PRA gives a short introduction about clinical trials and shows some aspects of the clinical process.

2.2 Website

The research results and conclusion show that once awareness is established about both PRA and clinical trials, most German students would look for more information on the company website or on Google in order to find the company website. Research shows that successful websites are usually organized in a particular manner and contain specific aspects (Price, 2010). These are; relevant and helpful information, a summary on the most important pages, high SEO capacity, content is adjusted on frequent times, content is available in more than one language, easy to navigate, offers the possibility to collect information and submit applications online, high level of interactivity, integration of website in back-office databases, and has links available to social networks. PRA's website already includes all of these except for high SEO capacity and that content is available in more than one language.

PRA currently only has their website available in Dutch, and only focuses on the needs of Dutch (potential) volunteers. It is therefore important that the current website will be adapted to the needs of German students as well.

When this was discussed with marketing director Arnaud Hoving he mentioned that it is not feasible to create a separate website, or even separate content on the current website for German students alone. The website can be translated, and therefore a language can be chosen that suits the particular users need, but the content will be the exact same for each language. It was therefore decided that only the most important aspects that can also be helpful to persuade

potential Dutch and Belgian volunteers will be added to the website in order to persuade German students to apply for clinical trials. During the client meeting Arnaud Hoving agreed on adding the following to the website to cater to German students' needs; former volunteer recommendations, adding more scientific facts and figures to the page that explains about safety of the medication, translating all content on the website to German.

Former volunteer recommendations

The research results and conclusion found that hearing about experiences from former volunteers are most likely to convince German students to decide to participate in a clinical trial. This is especially true when this person is someone they can connect with. Therefore, it was recommended that PRA should have former volunteer testimonials available on their website. As volunteer experiences are a very persuasive tool it is advised that an entire page on the website will be devoted to this. It can best be put under the section 'participate' on the website menu (see figure 17) as recommendations are most likely to be used by German students who already consider to participate.

Cialdini (2000) mentions that the social proof principle is most effective when people are unsure of something, and it is therefore recommended that a testimonial should include detailed description of fears and doubts the former volunteer had had before participating for the first time, and if those were necessary and if they would participate again now that they have done it once. The research results also show that students feel more comfortable if the recommendation comes from someone they can relate to. Students also mentioned that they would want to be able to see an image of the person who wrote the testimonial to ensure trustworthiness.

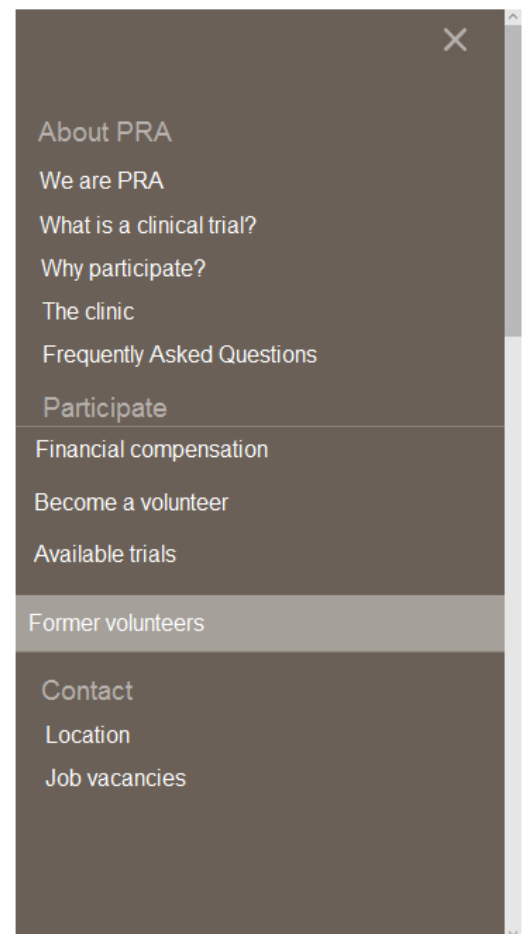
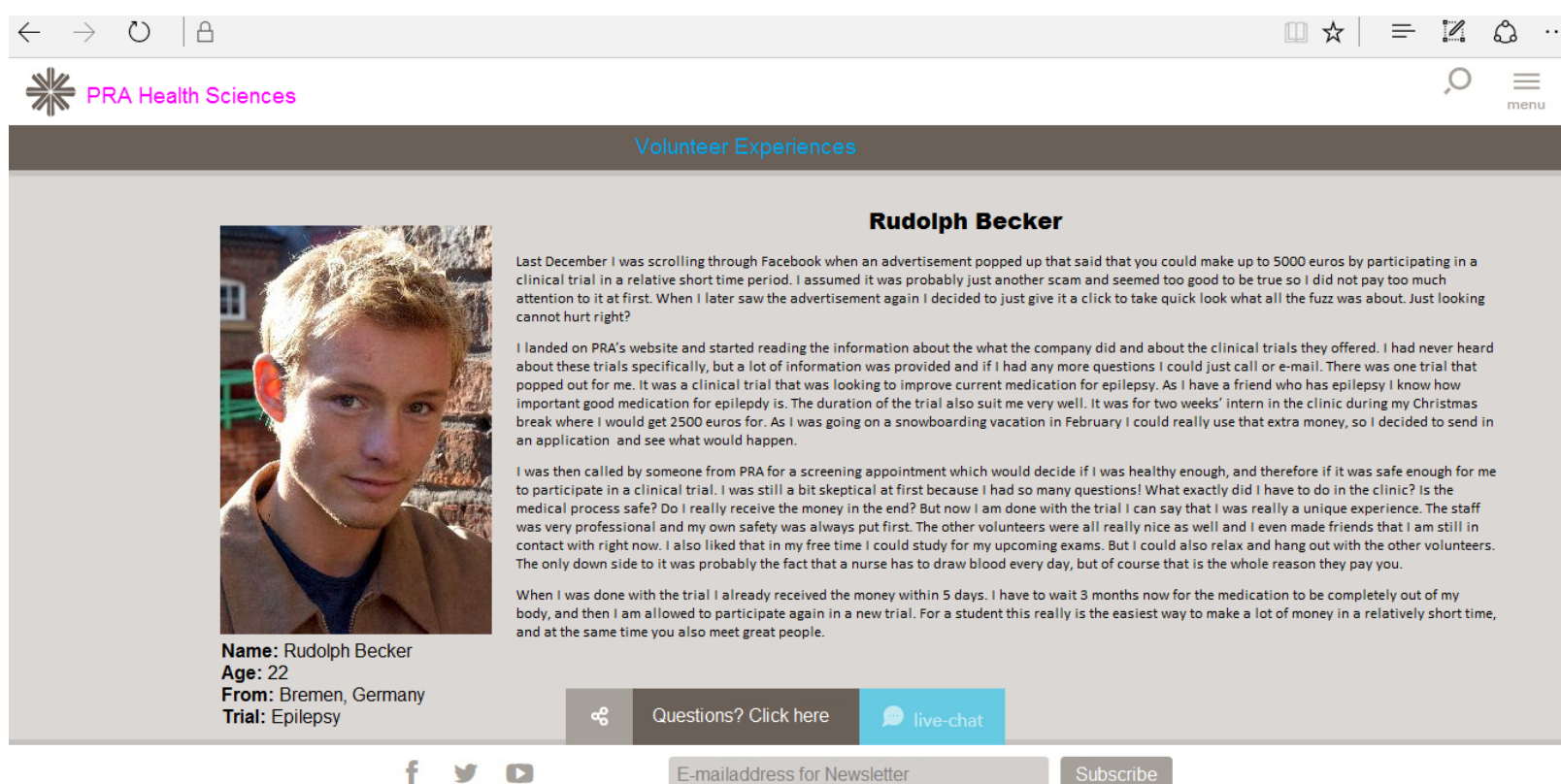


Figure 17: Former volunteers website menu

In order to collect the former volunteer testimonials PRA has 2 options: asking real former volunteers to write about their experiences (including a photo), or writing the testimonials themselves and using a photo of a model. The pro about the first option is that PRA does not have to put any effort into making the testimonials except for maybe adding the content a little bit. The information will also be truthful as real former volunteers can point out exactly what they liked about participating and what they did not like. The con about this option is that, according to the PRA volunteer database, there are no former German volunteers who actually finished a trial that are student aged. This means that all the testimonials would be from Dutch students, which may not be as relatable as Dutch students might see different benefits and concerns in participating based on different cultural values. The pro about PRA writing their own testimonials that include a picture of a model is that they can include testimonials of German volunteers that are student aged, and base their 'experience' on the research findings to appeal to actual German students (see media tool 4).



The screenshot shows a web browser displaying the 'PRA Health Sciences' website. The page is titled 'Volunteer Experiences' and features a testimonial from Rudolph Becker. On the left is a portrait of a young man. To his right, the text of his testimonial is displayed in three paragraphs. Below the portrait, his name, age, location, and trial type are listed. At the bottom of the testimonial section are links for 'Questions? Click here' and a 'live-chat' button. Below the entire testimonial section are social media icons for Facebook, Twitter, and YouTube, followed by a newsletter sign-up field and a 'Subscribe' button.

PRA Health Sciences

Volunteer Experiences

Rudolph Becker

Last December I was scrolling through Facebook when an advertisement popped up that said that you could make up to 5000 euros by participating in a clinical trial in a relative short time period. I assumed it was probably just another scam and seemed too good to be true so I did not pay too much attention to it at first. When I later saw the advertisement again I decided to just give it a click to take quick look what all the fuzz was about. Just looking cannot hurt right?

I landed on PRA's website and started reading the information about the what the company did and about the clinical trials they offered. I had never heard about these trials specifically, but a lot of information was provided and if I had any more questions I could just call or e-mail. There was one trial that popped out for me. It was a clinical trial that was looking to improve current medication for epilepsy. As I have a friend who has epilepsy I know how important good medication for epilepsy is. The duration of the trial also suit me very well. It was for two weeks' intern in the clinic during my Christmas break where I would get 2500 euros for. As I was going on a snowboarding vacation in February I could really use that extra money, so I decided to send in an application and see what would happen.

I was then called by someone from PRA for a screening appointment which would decide if I was healthy enough, and therefore if it was safe enough for me to participate in a clinical trial. I was still a bit skeptical at first because I had so many questions! What exactly did I have to do in the clinic? Is the medical process safe? Do I really receive the money in the end? But now I am done with the trial I can say that I was really a unique experience. The staff was very professional and my own safety was always put first. The other volunteers were all really nice as well and I even made friends that I am still in contact with right now. I also liked that in my free time I could study for my upcoming exams. But I could also relax and hang out with the other volunteers. The only down side to it was probably the fact that a nurse has to draw blood every day, but of course that is the whole reason they pay you.

When I was done with the trial I already received the money within 5 days. I have to wait 3 months now for the medication to be completely out of my body, and then I am allowed to participate again in a new trial. For a student this really is the easiest way to make a lot of money in a relatively short time, and at the same time you also meet great people.

Name: Rudolph Becker
Age: 22
From: Bremen, Germany
Trial: Epilepsy

[Questions? Click here](#) [live-chat](#)

[f](#) [t](#) [v](#)

Media tool 4: Volunteer Experiences PRA Website

Facts and figures

As the research findings and conclusion suggest that German students process information based on rational cues, facts and figures should be prevalent throughout the website. PRA already has a Frequently Asked Questions (FAQ) section on their website, which also includes the question about the safety of the medication and possible side effects. For more information, PRA has a separate page where people from can be redirected to if they chose through the FAQ, with a lot of information about the safety of testing medication where the risks, benefits, rules, regulations and laws explained. There are also links available to websites and documents with very specific information about different aspects of clinical testing. For German students to access this information it should simply be translated to German by a professional translator. The only thing that is still missing on this page, and what German students said it important information to them, are graphs and statistics. Therefore, it is recommended that PRA (if allowed to be made public) includes figures where can be seen what percentage of volunteers experienced side effects in the clinic (based on trials performed in the last 2 years) and what percentage did not experience any side effects, and whether these side effects were mild or extreme.

Translation to German

As the research results suggest that most German students view an organization more trustworthy when information is provided in their mother language it was recommended that PRA translate their website to German. Marketing director Arnaud Hoving said to agree with this measure and requested the estimated costs of translating the entire website to German. Almost all translation companies ask for a quote to be requested in order to give an estimated price. This quote can only be requested by PRA itself. The only company that could give a rough estimate, however, was Translation Kings, where 0,06 cents is charged per word. As PRA's website consist of 15 pages (including links and the home page) with an average of 150 words per page, a translation of the website possibly costs €135 ($15 \times 150 \times 0,06 = 135$).

Translation Company	Website	Price
Translation Kings	https://www.translationkings.nl/	0,06 per word

Search Engine Optimization (SEO)

The research results and conclusion show that most German students would use Google in order to find the company website. Orlando Meulens (2010) says that in order to make the website easy to find companies should invest in search engine optimization (SEO) which means that when people type in keywords on Google a link to the company website will pop-up higher than similar websites. As the process of SEO is quite complicated, especially when applying it to the German market where PRA is not familiar, it is advised that PRA hires the SEO services of a company that has a lot of experience with SEO on the German market. Research has been performed to find companies that would have PRA's best interest, and the following two are recommended:

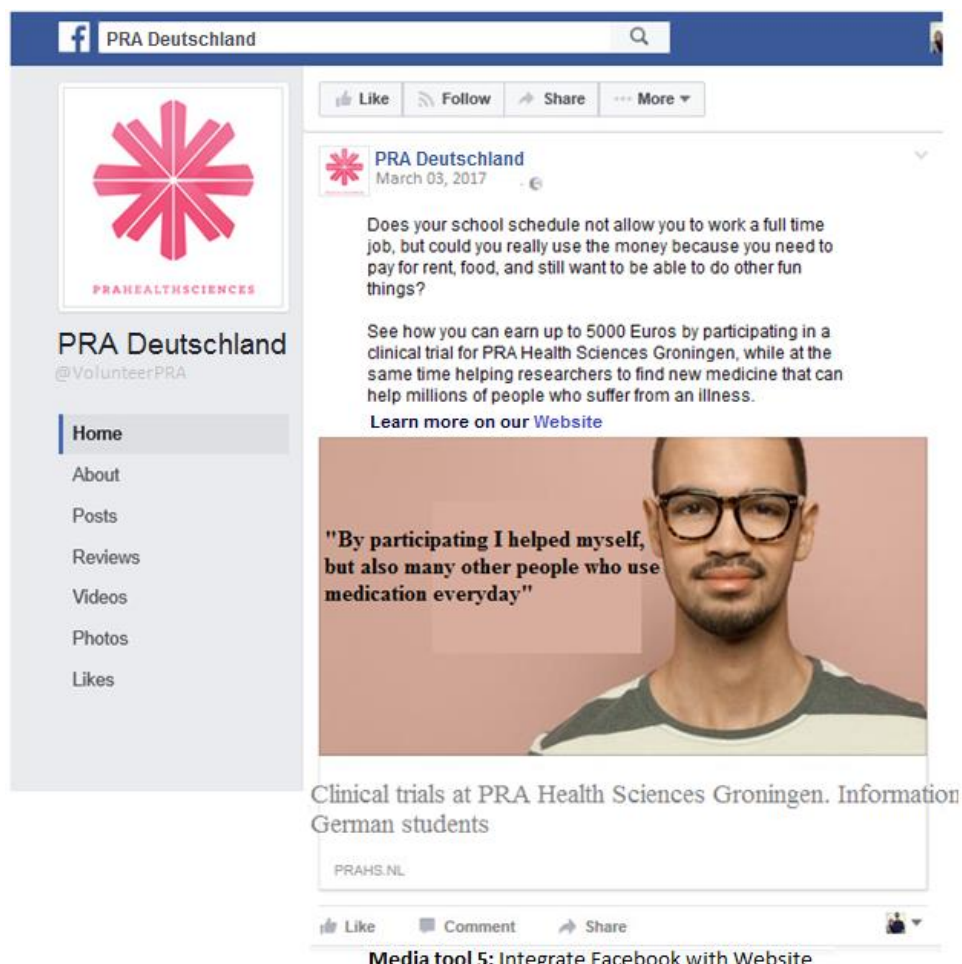
Company	Website	Price
Duitse Website	https://duitsewebsite.nl/	N.A.
Golden Dutch	http://uwwebsiteinduits.nl/	N.A.

It is recommended that PRA sets a monthly budget for SEO in order to measure its effectiveness. As this is the first time PRA tries this in Germany they can experiment with different budgets to see which generates the highest position.

Chapter 3: Implementation

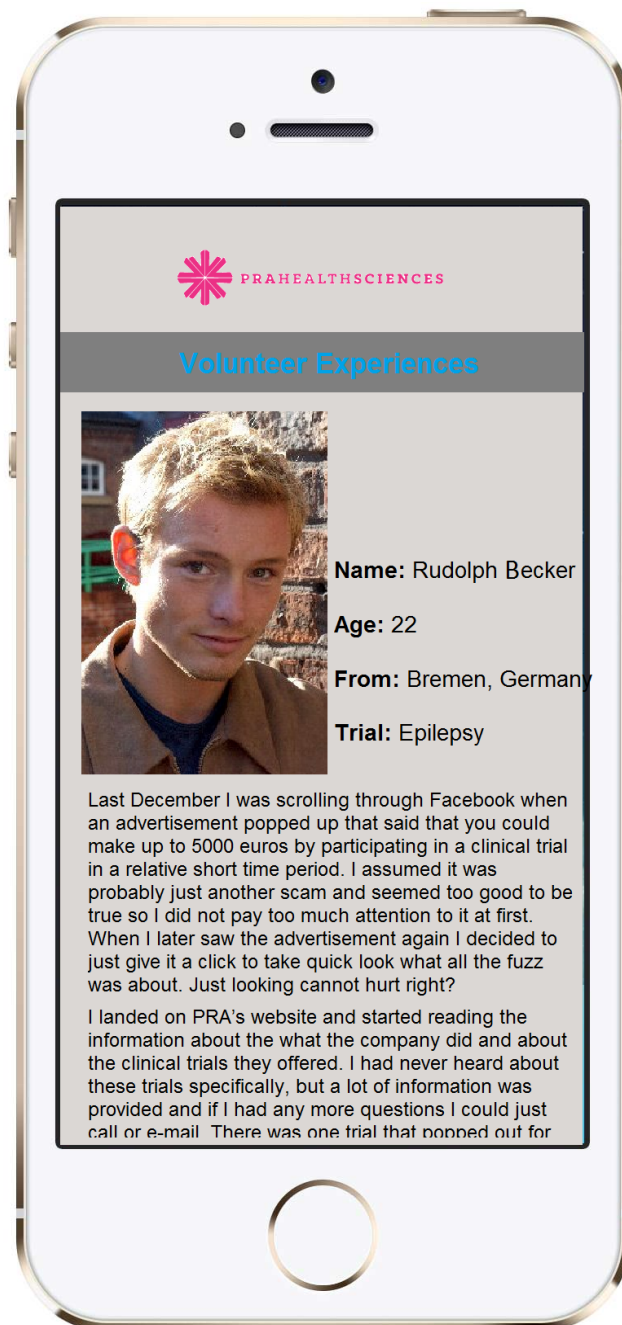
3.1 Integrating Channels

As the goal of the online communication marketing strategy is to create awareness about clinical trials by PRA and for German students to fill out a volunteer application, it is important that all communication channels recommended for the online marketing communication strategy are synchronized and interconnected with each other. The objective of the Facebook campaign is that German students click on the link to the website and perform an action while on the website. In order to integrate these channels with each other it is important that every Facebook ad has a link available to the page on the website where more in-depth information about the content of the ad is available (see media tool 5). The website should contain a link to the Facebook page as well.



Media tool 5: Integrate Facebook with Website

As the research findings suggest that German students use the Facebook app on their phone, it is important that the website can also translate to usage on a mobile device to make the integration of the channels more user friendly. This means that some content should be designed differently to make it fit. Media tool 6 is an example of the adaption from a volunteer recommendation on the website (media tool 4) to a mobile device.



Media tool 6: Adaption volunteer recommendation

3.2 Barriers

The communication interventions that were chosen aid to facilitate PRA's goal of creating awareness among German students and convince them to apply for a clinical trial. In order to make sure the online marketing communication strategy would be feasible for PRA, a client meeting was held with PRA's marketing director Arnaud Hoving where the research results were presented and to find out which ideas would be feasible and which would not in terms of channel usage, budget, staff and planning. Though these have all been taken into account to make sure the strategy will be feasible for PRA to effectuate, there are still some possible barriers.

First, in order for the campaign to be carried out, the plan must be accepted by a board that must approve of the campaign in terms of planning and budget. The plan is more easily accepted when measurements of previous campaigns are included. As this is the first time this type of campaign is carried out to target German students there are no previous measurements yet, and therefore it could be harder to convince the board that this campaign will result in an increase of volunteer applications for clinical trials. Also, though it is advised that PRA works together with external companies to perform certain campaign activities, this also means that PRA is not fully in control. It is therefore important that the preferable outcomes of these activities are very well discussed and communicated in advance.

3.3 Communicating about Policy

PRA's global policy for medical testing is: "Bringing new drugs to the people who need them through our global reach and using our innovative technologies, flexible approach and scientific expertise by skillfully executing complex, global studies across a range of therapeutic areas." (PRAHS, 2016). As PRA Groningen is mainly specialized in performing clinical trials it is part of their specific policy to recruit the number of volunteers that are requested by the sponsor to get the desired research results for a specific study. As PRA is looking to recruit German students specifically in order to have a better chance of having enough healthy volunteers to fill a trial, it is important that this change will be communicated to the staff and management in order to prepare them for this change. It is therefore recommended that a meeting is organized in order

to brief all of those who will be affected by this change, and inform them about what exactly will change. The most important change is probably the fact that staff will have to switch languages more often as English will be spoken with the German volunteers. In order to inform staff more into detail about the behavior and needs of German students, a workshop based on the results of the research report can be organized as well.

3.4 Facilitation of Communication

In order to facilitate the communication a distinction has been made between external and internal communication.

External communication:

- In order for PRA to communicate the right information to the right people, detailed advice has been provided on how to communicate to the target group through Facebook (chapter 2.1) and the website (chapter 2.2).
- As the research findings indicate that German students are likely to find an organization more trustworthy when they are communicated to directly, and also in German, it is advised that PRA hires an employee or an intern who is fluent in German, who can respond directly to Facebook messages on PRA's Facebook page for German students.

Internal communication:

- To inform the staff that works closely with the volunteers (recruitment, marketing, front desk, doctors, nurses), and who are therefore most affected by the change of a possible increase of German volunteers, a meeting and a workshop are advised (chapter 3.3).
- A detailed planning (chapter 4) will facilitate the communication as both staff and management are aware of the campaign activities and when the desired outcomes are expected.

Chapter 4: Planning and Budget

4.1 Planning

In order to organize, perform, and evaluate all campaign activities that are advised for PRA in order to increase awareness about clinical trials among German students, and have them act by filling out a volunteer application, it is recommended that the duration of this first campaign should be at least 4 months. During these 4 months the campaign will be divided into the following stages:

Stage 1: Preparation

1.	Preparation Stage
	Contact media and translation/SEO agencies
	Create volunteer testimonials
	Translate website to German
	Create media tools for Facebook
	Create video about PRA
	Inform staff about campaign
	Organize workshop
	Hire German speaking employee/intern

Figure 18: Stage 1: Preparation stage

During the preparation stage, PRA must make the final decision with which media and translation/SEO agencies they want to work together with on certain aspects of the campaign. As Arnaud Hoving is the marketing director it is advised that he makes the final decisions. During this time, volunteer testimonials can be created in Dutch by either asking former volunteers to write about their experiences, or for PRA to write this and include a picture of a model. Once this is ready it can be put on the website, and the website can now be translated to German. Different media tools should be created to see which generate the best responses, including a video. Once the campaign is set up, the staff should be informed about campaign activities and a German employee/intern could be hired. The deadline to perform all activities in the preparation stage is 02-28-2017.

Stage 2: Execution of Communication campaign

2.	Execution Stage
	Facebook Campaign
	Chose objective
	Try different ads
	- General information clinical trials
	- Former volunteer testimonial
	- Specific clinical trial
	- Introductory video PRA
	Try different target profiles
	- Include city/school
	- Do not include city/school
	Evaluate which ads and target profile work best
	Create more content for type of ad that generates most attention
	Bid on target profile that generates most attention

Figure 19: Stage 2: Execution stage

During the execution stage the campaign will be executed as advised in chapter 2. As it is not known yet which content and target profiles are most successful for PRA to make German students aware of clinical trials, and click the link to their website different ads and target profiles will be tested during the first month of the Facebook campaign. These will then be evaluated and based on the results of the evaluation it will be decided what type of ads will be created more of and on which target profiles PRA should bid on. The evaluation of ads and target profiles will be on 03-31-2017. The deadline for the Facebook campaign after new content has been created and applied will be 04-30-2017.

Stage 3: Evaluation

3.	Evaluation Stage
	Measure awareness (clicks to website)
	Measure actions (website conversions)
	Discuss outcomes with management
	Conclusion

Figure 20: Stage 3: Evaluation stage

After the Facebook campaign ends it should be evaluated if the campaign has met PRA's objective of creating awareness and convince German students to apply for clinical trials. The

results will have been collected by the media company, so it is advised that these will be sent to marketing director Arnaud Hoving so he can compare and measure the results to determine whether the campaign has been successful. These outcomes should then be discussed with management in order to see if a similar campaign could be implemented again, or if the strategy should change. Finally, a conclusion should be drawn and based on this conclusion PRA can decide on future communication policies. The deadline of the campaign is set on 05-31-2017.

Figure 21 is a full overview of the planning and contains all necessary milestones and deadlines.

Campaign Planning																
Activity		February				March				April				May		
		W. 06	W. 07	W. 08	W. 09	W. 10	W. 11	W. 12	W. 13	W. 14	W. 15	W. 16	W. 17	W. 18	W. 19	W. 20
1.	Preparation Stage															
	Contact media and translation/SEO agencies															
	Create volunteer testimonials															
	Translate website to German															
	Create media tools for Facebook															
	Create video about PRA															
	Inform staff about campaign															
	Organize workshop															
	Hire German speaking employee/intern															
2.	Execution Stage															
	Facebook Campaign															
	Chose objective															
	Try different ads															
	- General information clinical trials															
	- Former volunteer testimonials															
	- Specific clinical trial															
	- Introductory video PRA															
	Try different target profiles															
	- Include city/school															
	- Do not include city/school															
	Evaluate which ads and target profile work best															
	Create more content for successful ads															
	Bid on target profiles that generates most interest															
3.	Evaluation Stage															
	Measure awareness															
	Measure actions															
	Discuss outcomes with management															
	Conclusion (end of campaign)															

Figure 21: Campaign Planning

4.2 Budget

According to marketing director Arnaud Hoving PRA does not have a maximum marketing budget, but marketing plans have better chances of being approved when all different options have been analyzed and the cheapest has been chosen. Most sponsors also have a marketing budget for their trials. By comparing the marketing budgets of the last 6 sponsors, the average budget sponsors make available for marketing is €18.000, -. If PRA promotes the trials of sponsors who gives them a marketing budget during the campaign, part of the campaign can be funded with this money and could therefore even be cheaper than the suggested €5.389, -.

Product/ Activity	Price per quantity	Necessary quantity	Total costs
Facebook campaign:			
Marketing agency	€250 per month	1 per month	€1000, -
Bidding (price per click)	€0,6	500 per month	€1200, -
Bidding (website conversion)	€1,27	50 per month	€254, -
Video camera	€350	1	€350, -
Actor/ Doctor for video	€50	1	€50, -
German speaking employee/intern	€350 per month	1	€1400, -
Website:			
Translation	€0,06 per word	2250	€135, -
SEO	€250 per month	1 per month	€1000, -
Total campaign costs			€5.389, -

Figure 22: Budget

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Appendix

1. Preliminary research

1.1 Intake interview client

Name: Arnaud Hoving

Position: Marketing communication specialist/ Marketing director

Place: PRA Health Sciences, Groningen

Date: September 1, 2016

Q: *What is, according to you, the biggest communication problem PRA faces at the moment?*

A: I would say that at the moment we do not have very big problems. However, we have several minor communication problems. I would say that the most important issues we are facing all relate to the recruitment of volunteers for studies. We have a marketing strategy, and this strategy is quite effective, but there are always ways we can improve it. We still face situations where we are almost not able to fill a research group.

Q: *Can you tell me more about the current marketing strategy?*

A: The tools we use for our marketing strategy are both online and offline. For offline we use posters and flyers, that we place by universities in Groningen and through the city of Groningen. For online marketing we mainly use Facebook and the website. We use Facebook to attract people and if the message interests them they can click on a link that will send them to the particular study on the website. We pay for Facebook advertisements that will pop up on people's timeline. The age group that gets these advertisements are people between the age of 18 and 25. We found that most participants are attracted to the money they can make by participating in the study, so each Facebook advertisement contains this information. People are also more likely to be interested when the study is short. We mainly advertise the short studies, or longer studies of course when the amount of money that can be made with it is very high, but by advertising short studies, people are more likely to show interest and once they are on the website they can decide to participate in a different study as well. The website has recently been updated. Because information about medical studies can be very complicated I tried to put the information on the website as much in 'Jip & Janneke' (easy) language as possible. When people still have further questions they can always e-mail or call. Since we feel like online communication is becoming more and more important to attract attention from the target group, we are slowly trying to decrease the offline marketing. This way we will have a bigger budget to invest in online marketing.

Q: Have you tried any other forms of online marketing besides Facebook and the website?

A: Yes. We have a Twitter, Instagram and YouTube account, but these were not very successful so we do not really use these for advertising anymore as it is kind of a waste of time and energy. We also tried Spotify and advertising on other websites, but this also did not generate a lot of responses. What also proves that these channels are not successful are the answers to the question ‘How did you hear about us?’ on the volunteer application form. Most people hear about us through Facebook, Website advertisements or word of mouth.

Q: Who exactly is the target group for clinical trials?

A: The target group mainly consist of people who have a lot of time, and I would say usually not a fixed income. The biggest group is students, but we also have volunteers from low income households, world travelers, flex workers, and during the crisis we had lots of entrepreneurs. Since the economy is better the last group has drastically decreased, so I would say this group is mainly included when the economy is not thriving. We also occasionally have patient students where we look for patients with specific conditions. The majority of patient studies are for people who have diabetes.

Q: So people who are unemployed are not part of the target group? as this seems like a group with lots of time who can use the money.

A: Well, the money that people make by participating in a clinical trial is generated as income, so officially people who are unemployed are not allowed to participate as they can lose their social welfare. However, we do occasionally have people who are unemployed participating in studies. We do not tell the government, but when we are asked we do have to give their names. So participating while unemployed is on their own risk.

Q: Are only people from the Netherlands allowed to participate in clinical trials?

A: No, people from Belgium and Germany can participate as well. It used to be people from all EU countries, but this was sometimes difficult as we need medical records and not all countries send these with the same urgency as the Netherlands. Another problem was that studies can be cancelled at any time, and sometimes also the day before or the day that the study was going to start. This was very inconvenient for people who came from far away as they would often already be in the Netherlands. This is why the decision was made to only let people from the Netherlands, Belgium and Germany participate as volunteers. The reason we also still allow volunteers from Belgium and Germany is because these countries are still in relatively close proximity to the Netherlands and from experience we know that these are often very reliable volunteers.

Q: Do you use the same marketing strategy for all these countries?

A: At the moment we do. I would say the current marketing strategy is actually only focused on the Netherlands and not so much on Belgium and Germany. It is probably a bit focused on Belgium as well since everything is in Dutch, but we do not do any advertising in German or English.

Q: Would you like to recruit more people from these countries as volunteers?

A: Yes, that would be very nice. We are always in need for volunteer so the more people in our database the better. Especially Germany would be good to look into as I think there is very much potential here. I think the main problem we also have at the moment is that the website is not in German but I would like to have the website available in other languages soon. It is, however, a requirement that German volunteers can speak and read English, as all the information they get and forms they have to sign are all in English and in the clinic everything will be in English. We know that if Germans only speak very little English it can be very frustrating for both them and those working in the clinic.

Q: Have you thought about targeting German students, as these are likely to speak English?

A: That is actually a very good idea. I agree I think German students would be a good group to focus on when focusing on Germany.

Q: Many German students are also studying in the Netherlands. Would you like to target both German students in the Netherlands and Germany?

A: Yes, that would be very good.

Q: What things would you like to know when developing a marketing communication strategy for German students?

A: Well, I think the most important thing is to know what online communication channels they use as we would like to have our marketing strategy focus on online communication as much as possible. So I think it is important to know what channels they use and where they get information from. It would also be nice to know if things are similar for German and Dutch students, such as where they look for in messages about studies or which channels they use, because if these are more or less the same we do not have to change much about our strategy except for the language and region. I know that Dutch students are very focused on the money and the time when looking for studies. They also like to spend their free time in the clinic watching movies and playing games. I would like to know what is important for German students when they are intern.

Q: Would the main goal of the marketing communication strategy be to create awareness?

A: Well yes and no. The strategy should create awareness, but the most important thing is that people fill out the volunteer application. That is our goal. Therefore, I would say the goal of the strategy is to both create awareness and have people act.

1.2 Database: How did people hear of PRA since January 2015

	A	B	C
1	Heard of PRA	Volunteers in database since 01jan2015	Opmerking
2	Vrienden/Familie	1124	Hier zit waarschijnlijk ook een groot deel 'tagging' op Facebook in. M.a.w. je wordt door vriend of familie getagt op Facebook,
3	Facebook	950	
4	Google	525	
5	Advertentie op website	250	
6	Poster of reclamebord	93	
7	Advertentie in krant	78	
8	Radio / Televisie	21	
9	Al vrijwilliger bij PRA	16	
10	Advertentie in tijdschrift	7	
11	Studenten.net/studentenbaan.nl	6	
12	Studentenvereniging	0	Deze keuze staat sinds 17oct16 in de lijst
13	E-mailing	0	Deze keuze staat sinds aug16 in de lijst
14			
15			
16	Niet meer in de lijst:		Om de lijst actueel te houden haal ik keuzes die niet meer worden gebruikt eruit.
17	Flyer	24	
18	Spotify	25	
19	Youtube	3	
20	Twitter	0	
21	Donar sponsoring	0	
22	Dinox	2	
23	Medians	14	
24	Proefpersonen.nl	18	
25			
26			

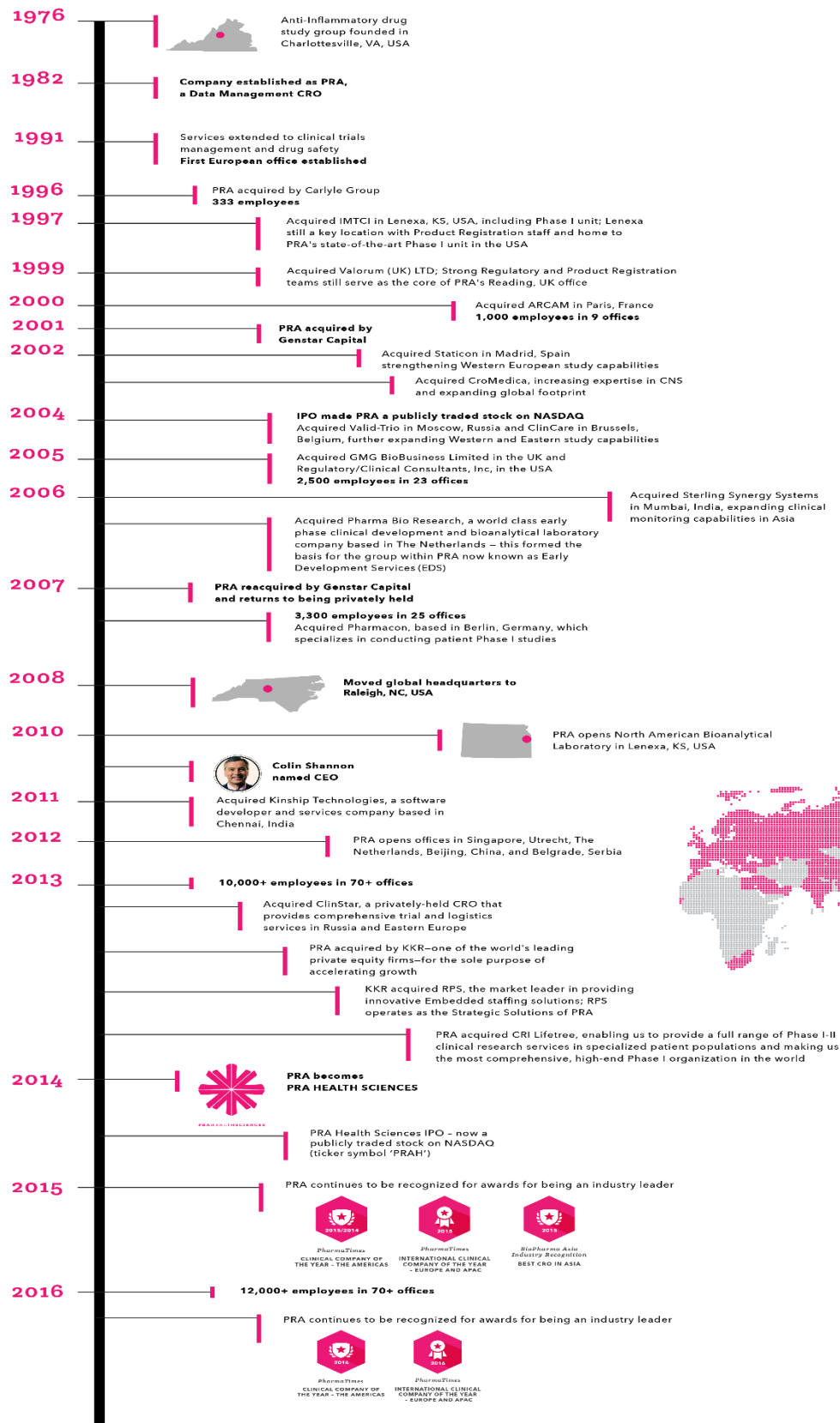
Source: PRA database, provided by Arnaud Hoving

English summary of database 'How did you hear of PRA' (original pictured above):

In the first row (A) it gives the possibilities how people have heard of PRA. These are in order from high to low: Friends/ Family (a comment is added in row C for the Friends/ Family option. this comment says: it is likely that many of these people have been tagged in a Facebook post from PRA by a friend of family member), Facebook, Google, Advertisements on website, Poster of billboards, Advertisements in newspapers, Radio/ Television, already a volunteer at PRA, Advertisements in magazine, Student.net/ Studentenbaan.nl, Student association (a comment is added in row C for the student association option. this comment says: This option is available since October 17th 2016), E-mailing (a comment is added in row C for the e-mailing option. this comment says: This option is available since August 16th 2016). In row B it has the number of volunteers who have said how they heard of PRA.

All the options below e-mailing have been taken out of the list as these methods were unsuccessful.

PRA TIMELINE



1.4 Organization and management PRA

Business development	Business development is in charge of recruiting clients (sponsors) who want to use PRA as the organizations to test their medication. Business development managers go to international fairs and congresses and are responsible for creating quotations.
Program management	Program managers are responsible for the design, preparation, planning and supervision of the clinical trials or laboratory tests. Project managers are the primary point of contact for PRA's clients. They write the study protocols, coordinate the entire implementation and lead the multidisciplinary team consisting of employees from different departments working on the particular study.
Clinical operations (before approval)	Throughout the entire process of recruitment to leaving the clinic after testing, the volunteers are under the care of the staff of PRA AME clinical operations. Clinical operations is by far the largest business unit of PRA.
Recruitment office and marketing department	The Recruitment Office is responsible for recruiting enough volunteers to participate in clinical trials. For publicity the marketing department organizes campaigns and meetings, aimed at different audiences. Once a volunteer fills out an application the recruiters add the volunteer to the volunteer database and make an appointment for when the volunteer can come to the clinic for inspection.
Clinical operations (after approval)	Once a volunteer is approved, he or she goes to one of the clinics to participate in the actual research. During the stay, the volunteer is taken care of by a team of staff who accompany them and keep their health in mind. Doctors and MRA's monitor how the volunteer responds to the drug and test them regularly. They do this by monitoring blood pressure and temperature, make ECGs (heart videos) and do interviews with the volunteers about their welfare.
Pharmacy	All drug formulations are made or stored here for the Phase 1 / 2A drug research. This is all done under GMP controlled conditions in which the study drug is eventually released by a Qualified Person for use in the study.
Laboratory	The Laboratory for Clinical Chemistry and Hematology is responsible for the examination of blood and urine samples taken from volunteers during the testing and clinical phase.
Data support	The studies generate a wealth of information. This information (data) must be processed, analyzed and presented. In addition, conclusions are drawn there from the research. In PRA EDS work many employees in one way or another with that data. Some build the databases where the data should be recorded. Others enter the data. The next step is that the data are statistically tested and that ultimately a whole report and is drawn based on this data.

Source: <http://prahs.com/careers/job-opportunities/careers-at-eds-nl/>

2. Theoretical Framework

2.1 Geert Hofstede: Cultural dimensions

Power Distance

Power distance relates to how the less powerful members in a society interact with their inferiors. It also says something on how a society handles inequality among people. In societies where the power distance is low people strive to be more egalitarian and equalize the power distribution. In societies where the power distance is high, however, subordinates are expected to obey and respect their inferiors.

Individualism versus Collectivism

This relates to whether people see themselves as individuals or as part from a group. In individualistic societies someone is expected to take care of only him-/herself or their immediate family members. In collective societies, on the other hand, everyone is looking after everyone's needs and there is always an exchange for unquestioning loyalty.

Masculinity versus Femininity

Masculinity stands for a preference in a society, which is marked by heroism, assertiveness, material rewards and achievement. Hence, it is very competitive. The opposite of masculinity is femininity. This stands for modesty, caring for the weak a quality as corporation. Also, feminism cultures are rather consensus oriented

Uncertainty Avoidance

Uncertainty avoidance relates to how societies deal with uncertainty. It is about dealing with the fact that the future cannot be predicted accurately and how members of a society react to it. Societies with high uncertainty avoidance will do everything they can to prepare in advance, as where societies with low uncertainty avoidance will just let things happen without thinking about it too much.

Long term Orientation versus Short Term Orientation

Long versus short term orientation relates to how people in a society value time. When a society is short term oriented it means that they live in the now and the actions they take are relevant for the present and are not focused on how these actions will affect the future. Long term oriented societies are the opposite and always consider how actions they take today will affect the future.

Indulgence versus Restraint

This dimension relates to whether a society is raised by being let free and explore things for themselves or if this is decided by strict social norms. Indulgence is when a society has relatively free gratification of natural and basic human needs, which relates to enjoying life and having fun. Restraints stands for a society that suppresses all gratification because it will be regulated by strict social norms.

2.2 Trompenaars and Hampden-Turner: Cultural dimensions

1. Universalism vs. Particularism

This dimension relates to how relationships are measured. Universalist societies use general rules and obligations as guidelines, and tend to follow the rules no matter the situation. They also assume that their standards are the correct standards and attempt to change the attitudes of others to match theirs. In particularistic societies circumstances and relationships are more important than rules. Responses to a situation likely changes according to the circumstances and the people involved.

2. Individualism vs. Communitarianism

This dimension related to if individuals view themselves as an individual or as part of a group. In an individualistic culture, people make their own decisions and only take care of their own (and maybe their direct family) needs. Decisions are often made without consultation. Communitarian view themselves as part of a group and believe that an individual's quality of life improves when they take care of each other.

3. Specific vs. Diffuse

Generally, specific-oriented cultures analyze elements separately, then put them back together and make their decision based on the number of positives and negatives. Decisions are usually only made positively when hard facts are presented. Diffuse-oriented cultures see each element in the perspective of the complete picture where all elements are related to each other. Decisions are usually made based on the 'greater good' for the whole group.

4. Neutral vs. Emotional

This dimension focuses on how people express emotions. Neutral people tend to not openly show their emotions as where emotional people clearly express and show their emotions openly.

5. Achievement vs. Ascription

This dimension focuses on how personal status is assigned. Societies that base a person's worth on achievement look at the individual achievements of people and the more someone has achieved on their own, the higher they are valued. In societies where a person's worth is based on ascription it matters where the person comes from, who their family is, who their friends are, and based on this a person is high (or low) in status.

6. Sequential time vs. Synchronous time

This dimension relates to whether a society past, present, or future oriented. If a society is oriented towards the past, the future is often seen as a repetition of past experiences. If a society is present oriented, day-by-day experiences tend to direct people's lives. In a future-oriented society, most human activities are directed toward future prospects. In this case, the past is not considered to be vitally significant to the future.

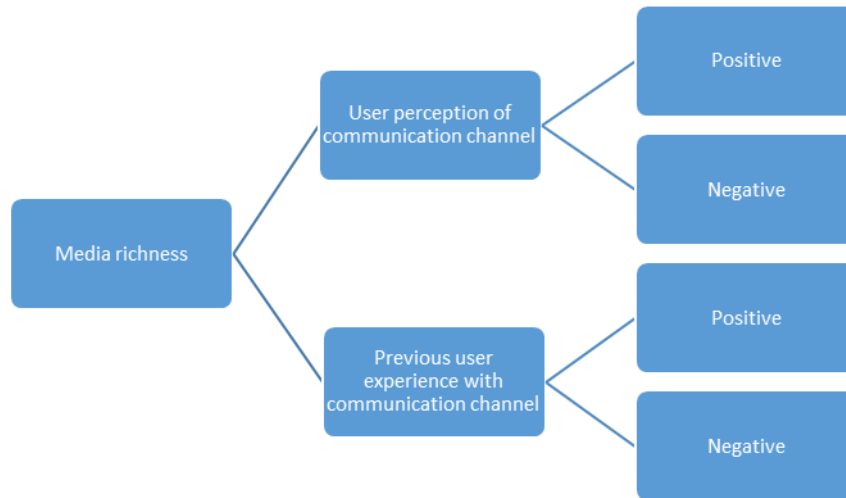
7. Internal direction vs. Outer direction

this dimension relates to how people view themselves and their environments. People who tend to have internal directions view that they can dominate their environment by taking certain actions or procedures. On the other hand, people tend to have outer directions think that they cannot control their environment, but that in fact their environment controls them. Therefore, they focus more on their environment than on themselves.

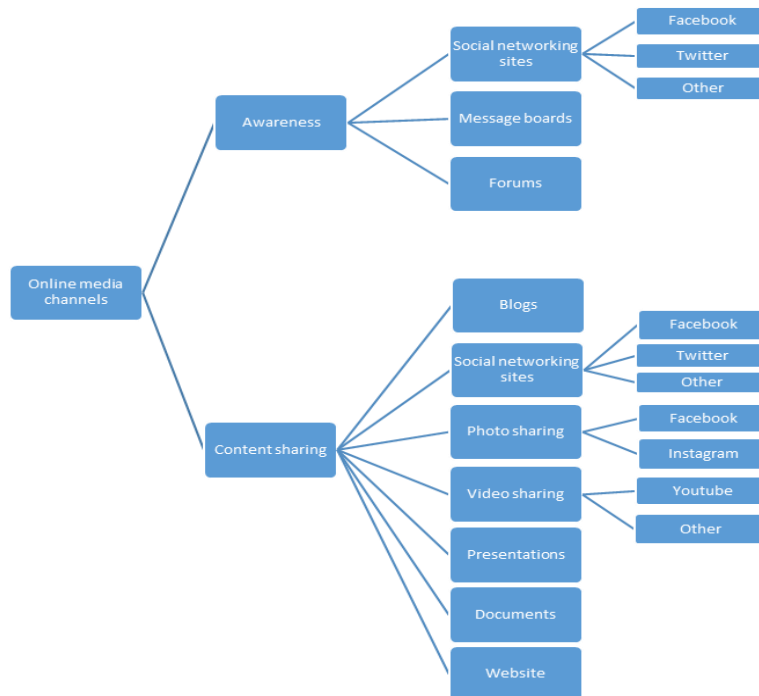
3. Unraveled key concepts

Theoretical area: Online communication

- Media richness

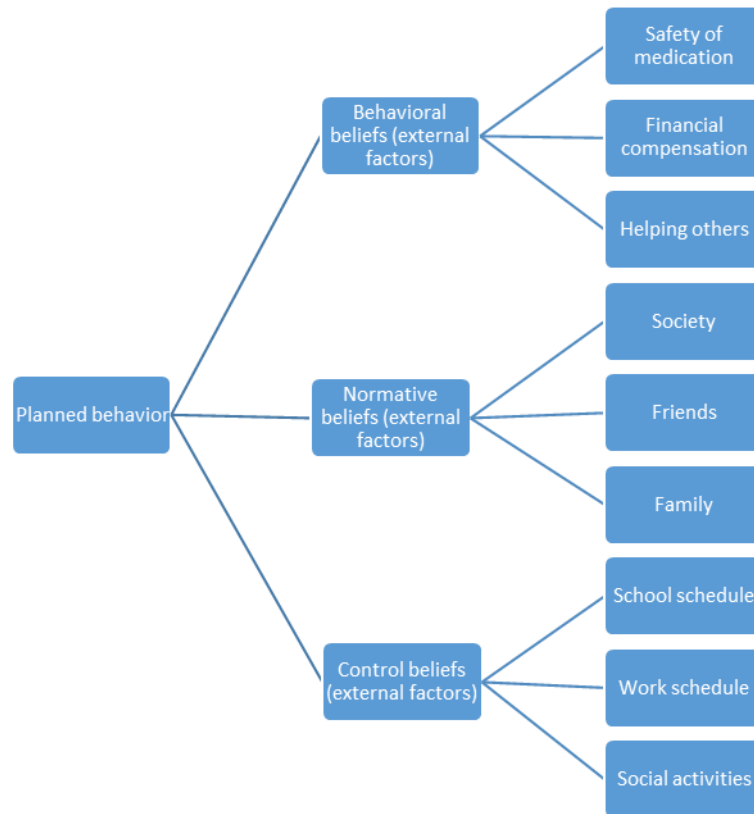


- Online media channels

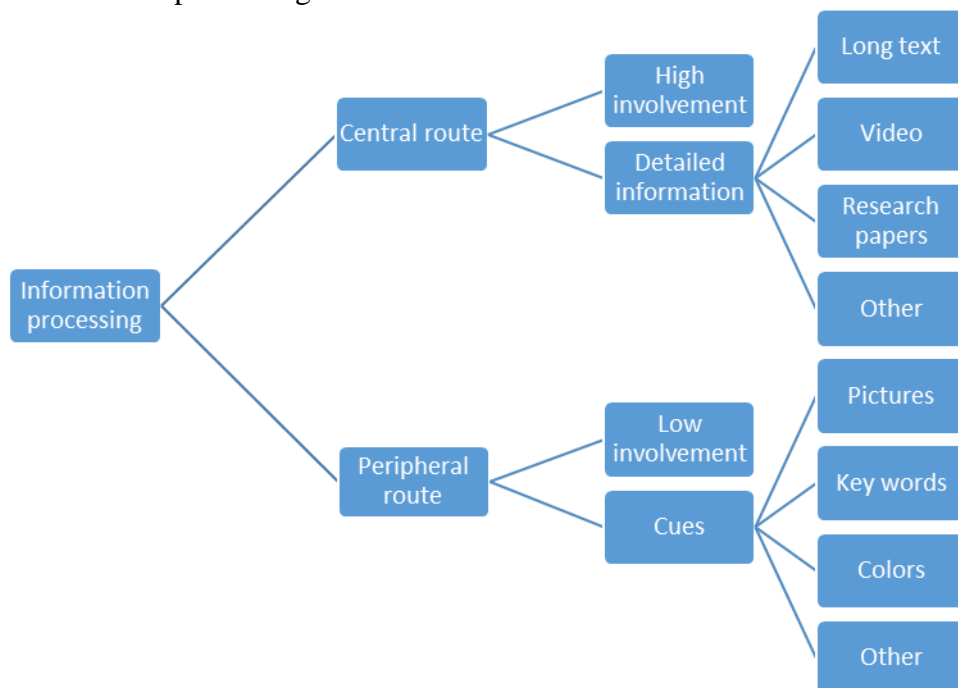


Theoretical area: Persuasion techniques

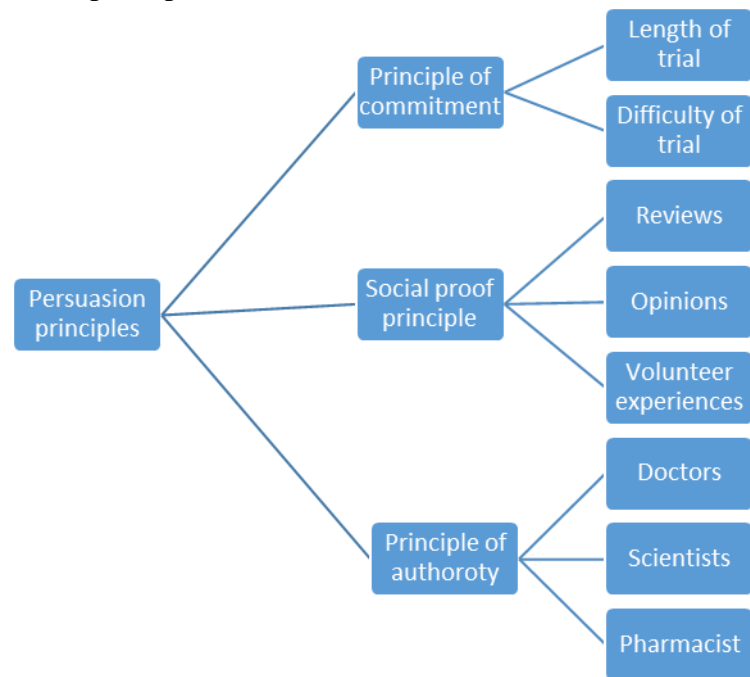
- Planned behavior



- Information processing

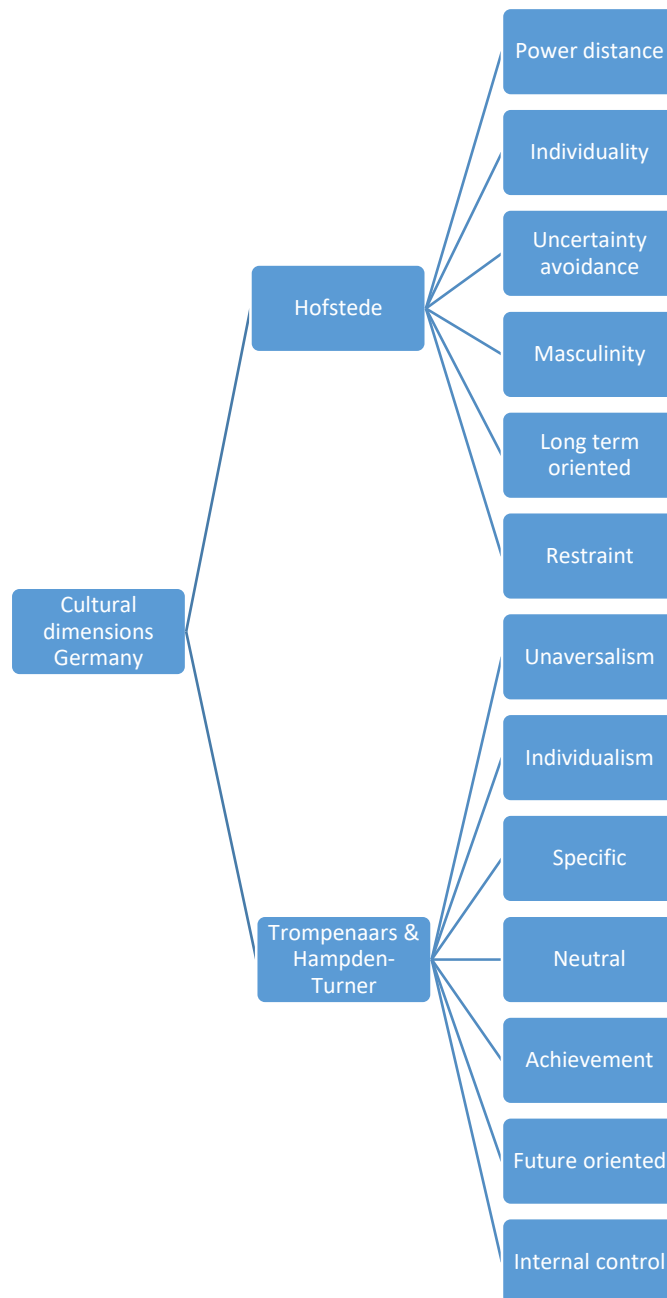


- Persuasion principles



Theoretical area: German culture

- German culture



4. Focus group questions

Note: Questions could be changed or adjusted according to the answers of the focus group discussion.

Questions about online communication

1. Which online communication channels do you use the most in your everyday life?
2. What is the reason you use these online communication channels instead of other (similar) alternatives? (please explain per communication channel you listed in question 1)
3. On which online communication channels do you think you would notice an advertisement about clinical trials (if you would notice it at all)?
4. If you knew what a clinical trial was, and were interested to participate in one, which online media channels would you use to obtain more information and why?

Questions about persuasion

1. What would be reasons for you willing to participate in a clinical trial?
2. What would be reasons for you to not want to participate in a clinical trial?
3. Would the opinion of people close to you (e.g. family, friends) play a role with your decision to participate in a clinical trial? And if yes whose opinion and why?
4. If you are not familiar with clinical trials and you first receive information about it, would you prefer this to be short with few details or long with many details? Why?
5. When do you think an advertisement about clinical trials would catch your attention (not yet your interest) when it was to pop up on an online communication channel you use? (ex. It is nice and colorful, the information contains something that looks interesting or weird/shocking, includes pictures etc.)

Questions related to the German culture

1. What are important things for you to consider whether or not you would be interested to participate in a clinical trial?
2. Do you think aspects of the culture you grew up in influences your personal opinion of participating in clinical trials? Why or why not?

5. Focus group summary

Date: Thursday December 1st, 2016

Facilitator: Marlou Schutte

Participant 1: Jacqueline Schmitz

Participant 2: Katharina Blenk

Participant 3: Vivienne Duensing

Participant 4: Philipp Santos de Oliveira

Total time of focus group: 47 minutes and 45 seconds

The focus group was conducted with four German students who are currently in their 4th year of their study international communication at the Hanze University of Applied sciences in Groningen. The questions were based on the three research areas; online communication, persuasion techniques, and German culture. Before the focus group took place an information sheet with an explanation about clinical trials and how exactly the focus group would be conducted was sent to each participant in order for all participants to feel comfortable and prepared. Another reason for this was that the participants only had a limited amount of time due to their school schedule, and the sheet enabled to make the main introduction, and introduction to each topic during the focus group shorter.

Introduction:

Marlou tells more detailed information about the phases of medical testing and about the clinical trials of PRA. The process is explained from the very beginning of making a screening appointment to the very end of leaving the clinic and having the last doctor's appointment.

Part 1: Discussion on online communication

Marlou: Which online media channels do you guys use on a daily basis and why?

Jacqueline: Facebook, Instagram, LinkedIn, Email. Mainly to share things like photos and videos with friends, and LinkedIn and e-mail I use for work and school related purposes.

Katharina: I use WhatsApp to talk to my friends, Snapchat and Instagram to send and upload pictures, Facebook to stay in touch with my friends and just people I know and Google I use as an encyclopedia to look stuff up.

Vivienne: I use WhatsApp, Facebook, Snapchat, Email and Instagram as well for the same reasons Jacqueline and Katharina do.

Philip: I also use WhatsApp, Facebook, Instagram and linked in for those reasons. I also use WeChat though so I can stay in touch with my friends in Asia and Skype and FaceTime/I Message to have face-to-face contact with my friends everywhere.

Marlou: At the moment PRA mainly uses Facebook as this works best to make Dutch people aware of clinical trials. On which channels do you guys think you would notice an advertisement about clinical trials?

Jacqueline: I would probably notice it on Facebook and other random websites.

Vivienne: Yeah also Facebook and probably Instagram.

Katharina: Do you just mean social media or all online media? Because besides Facebook I usually also look at Google ads advertisements.

Marlou: Both social and online media.

Katharina: Oh good. I use google for a lot of stuff and when I see something interesting on their advertisements I usually click on it. Also when a website ranks very high I will click on it. I would never click on a website that is on the third page or something because I never look there. When I type in key words on Google I would click on the first few things to pop up.

Marlou: Jaqueline, said you would notice an advertisement about clinical trials on random websites. What exactly do you mean with that?

Jacqueline: Ehm, with that I mean mainly websites where you look to make money I guess. Like blogs and websites that advertise jobs. Oh and I also think student websites are a very good platform where I would notice an advertisement like this. Like websites where they advertise student jobs.

Vivienne: Yes, or student clubs at universities. There are many student clubs and associations that have newsletters and promote jobs and experiences in here. Most newsletters are published but can also be found online. I would probably notice an interview with someone who already participated in a clinical trial, and if I needed money I would probably want to know more about this. I also think it is smart to contact faculties of universities that have health majors to say something about clinical trials during courses maybe, because I think those people would be interested in the medical field and therefore maybe more interested to participate.

Katharina: Yes, I think so too, but when it says you can make a lot of money I always think it is a scam. I would want to know if the company is trustworthy before taking it serious.

Marlou: Do you guys use search engines as well?

Philipp: Yes. haha I am kind of a nerd so I use different ones than Google, especially startpage.com, but I do not know if others use these too. I think most student use Google.

(the other participants say that they do not use this, but only use Google)

Marlou: Would you use a search engine to find the website of the company that offers the trials or to find more information about clinical trials in general?

Katharina: Probably both, but especially to find the company that offers the trial to find out if the company is trustworthy and not a scam. I think the easiest way would be if the website was on top in Google search. I only ever look on the first page of Google so it should be on the first

page. This makes it also more trustworthy. I would also like it if website was attached to a Facebook advertisement.

Philipp: Yeah, I would definitely want the link to the website to be in a Facebook post.

Marlou: Okay. And when you are on the website where would you search for information? There will be sections that have information about clinical trials of course, but what kind of information would you want and what would you do if the information is not clear to you? At the moment you can send them an e-mail, but you all said you use WhatsApp as well, so would you like to communicate through Whatsapp about clinical trials with an employee for example?

Philipp: More and more businesses use WhatsApp. I can make a doctor's appointment via WhatsApp. I have not tried it yet but I know that it is possible. You can just add a number from the business and then you just app with them.

Katharina: Yeah Hanze has it too. When I came to study here there was a number you could send questions too. But I think I would only use it for questions like how much money do I get and what are the side effects of the medication. Maybe these question can already be answered in a FAQ (Frequently Asked Questions) on the website and then e-mail would be enough to ask any specific questions that have not yet been answered in the FAQ.

Philipp: Yeah I agree, and if the questions that I have concerns about are already answered I would also have the feeling that the company cares about me and concerns about my health, so I would think they are more trustworthy as well. So I would say a WhatsApp service is only necessary if the FAQ is not there. The company just has to know which the general questions are that most German students will ask I think.

Vivienne: Yes, I agree as well and I think that a chat box where you can ask an employee questions immediately helps as well, because then you know that real people work there and that it is not a robot or something.

Part 2: Discussion about persuasion techniques

Marlou: What would be the most important reason to participate in a clinical trial?

Jacqueline: Probably to help other people.

Philip: For me it is definitely the financial compensation.

Katharina & Vivienne: For me too.

Jacqueline: Honestly I would probably not participate for that reason (helping others) if I would not get any financial compensation. So I would say my reason would be helping people if I wanted to participate, but the financial compensation would cross me over the border. That is if I would know that it is safe.

Vivienne: Yeah, I would of course go for the financial compensation in the first place, but I would also like to be part of a future product.

Katharina: I agree with that. I would like to follow the whole process of the medication that I tested until it is approved. And if not I would like to know why. But I would not participate for this reason only, that would be the financial compensation if I needed money.

Philipp: Haha I just want the money really.

Marlou: And the main reason not to participate?

Katarina: Safety reasons. Yeah well I would want to know all the information about the medication. And for me I would also want to know if a lot of blood samples have to be taken because I am scared of needles haha. But that is just for me personally. If I wasn't it would just be the unknown of the medication.

Vivienne: Yeah I would be hesitant to put medication in a healthy body. So I should really be convinced that it won't harm me.

Jacqueline: Yes, I have the same concerns as Vivienne. Taking medication when I'm healthy is something I am usually against.

Philipp: I have antipathy to the pharmaceutical industry and medication in general, because I feel like they just want to make money and do not care too much about the people they make the medication for. But I would probably participate anyways for the money. I also do not know if I would be healthy enough and if it would work with my school schedule. How long is a trial generally?

Marlou: It really depends. There can be a trial that lasts a few days and there are trials that last a few months.

Philipp: Yeah I would want to see if it would all work with school then. It should probably be during a break or a weekend then.

Jacqueline: Or sometimes we are free in our schedule. So those days could work as well.

Vivienne: I think there is also a difference between Hochschule and university. The Hochschule often has a classes that students are required to go to as where the universities often have lecture hall classes that are optional. I know of university students that do not go to school for 3 months but just study at home and follow their lectures online. These students would have a lot of time.

Marlou: That is true. When a clinical trial requires a long time inside the clinic PRA could maybe focus more on university students.

Vivienne: Yes. Or both still but I think mainly university students respond to a longer trial.

Marlou: Would opinions from outside, your parents or friends for example, influence your opinion of participating?

Philipp: I wouldn't say their opinion is actually important, but it would be nice to consult them. However, if their opinion is different from mine then I would say I'm sorry but I am going to do it anyways.

Katharina: Yeah. My mom is a nurse for example and if she told me absolutely not to do it I would probably take her opinion very serious. But if I know someone who has already done it before and has positive experiences I would still consider it. I would also consult my doctor and if he says that I should not do it I probably wouldn't do it.

Jacqueline: My dad has had different medical conditions in the past and has a lot of experience with doctors and medication, so I would ask him what he thinks about taking medication for research. If he would say nah don't do that I would trust him, but in the end I would make my own decision, so the opinion of my parents would not be as important as my own opinion.

Vivienne: In my family there is not much illness, so they do not have a lot of experience with it and therefore I am very careful with taking medication in general because I don't know what it does. So if I would have medication tested on me I would need someone else to tell me who has already done it that it is not dangerous and that it was a good experience. If I would read about it, I would also be afraid that it is a scam. Like you take a pill, chill there for a few hours and they send you home with money. So only someone who has already done it before can tell me if it is really like that or if it is more professional.

****Marlou takes out cards with the 6 six persuasion principles of Cialdini. They are shortly discussed and the students are asked to rank them. The students soon decide that the principle of liking, reciprocity principle and the principle of scarcity would not work for clinical trials. This confirms that the principles that were also chosen as useful for PRA in the theoretical framework are indeed useful. The principle of commitment was ranked least important, the principle of authority second important and the social proof principle most important. ****

The principle of commitment: All four students agree that this plays a role when first looking at participating in a clinical trial. However, they do not rank it as important as the principle of authority and the social proof principle. They think that most people would want to do a short trial first to 'test the ice' and to make sure that they are not 'trapped' in the clinic for a long time. There is however a difference between the three girls and Philipp. The girls say that they would never do a long trial to begin with, but Philipp says he would consider doing a longer more difficult trial if it were to pay very well.

The authority principle: All four students agree that this principle could be very effective when trying to persuade German students as they believe Germans look up to figures of authority, and like to consult these for information. Vivienne says that she thinks that PRA could look into who is an important person in different areas in Germany so they can ask politicians or doctors of hospitals in the area to say something about the importance and process of clinical trials. Katharina says that if she were thinking about participating she would go to her own doctor and ask him if he has more information about the possible risks. She would trust her doctor more than the company hosting the trials, so she advises that the company informs doctors about their process. Jacqueline and Philipp both agree that they would trust the opinion of a doctor. They say it does not necessarily have to be their own doctor, but it could also be a doctor who works in the clinic or in a hospital. Jacqueline mentions that the doctor does have to come over as trustworthy though. "You often see those American commercials where the doctors look like perfect models

with perfect teeth and stuff. Most Germans would not believe this. I would probably prefer an older doctor because then I would think he or she has more experience. I would also want to be able to look up the reputation of the doctor on Google for example so I could see how long this person has been working and where, so I know it is a real doctor and not just a paid actor.”

The social proof principle: All four students agree that the social proof principle would be most persuasive to them if they were not sure about participating in a clinical trial. Vivienne says that she would likely trust someone she feels connected to that has already participated in a clinical trial before. Especially if these people can tell her that they also had doubts before they participated and that those were the same fears she has (such as the safety of the medication, is the company trustworthy and do they care about the volunteers or do they treat you like a lab rat, how was it in the clinic, did they experience any side effects from the medication, and if they would want to participate again). Katharina agrees, but says she would want honest reviews. “If it is only positives and they say it was so awesome and everyone should do it I would not believe it. I would want to know the positives but also the negatives. I think if it was on the website it would also not be as trustworthy because I would think the company only puts up the positive things. Maybe there could be a blog or a forum where participants can share experiences.” Philipp says that he would prefer the reviews on the website, because he believes that everyone can write on a forum and therefore you do not know for sure if the people participated. He thinks this is the best way to do it: People who are interested in volunteering can make a profile. With this profile there is a forum on the company website that is only accessible for people who signed up on the website where they communicate with other volunteers who already participated. He says that when a volunteer finishes a trial they should get a check mark from the company so others can see that these people have indeed already participated and that these people can answer any questions. He also says that for the people who do not want to make a profile there should be testimonials on the website with pictures of the volunteers. “I would want the picture there so I know it is a real person.” Philipp says. Jacqueline adds that this principle would work best if she knew the person personally, and also mentions that she thinks a person who uses medication everyday will be able to convince her, because she will know she is helping other people and not just the pharmaceutical industry.

Marlou: How would you like to receive information about clinical trials if you were completely unaware of what a trial was? Through a short message with cues such as pictures, or through a detailed text?

Katharina: I would more likely to become aware through a short message but when I’m interested I prefer a detailed text.

(all other participants agree)

Katharina: A catch phrase would catch my attention. Like helping people and making money with it.

Philipp: Yes, and a picture should be included as well, otherwise I don’t look at it. And I think the financial compensation should be mentioned in key words.

(Jacqueline and Vivienne agree)

Marlou: I wonder which form of communication you all prefer. A text or a video? Or something else?

Philipp: A video message would be nice so I can see the face expressions and hear the tone of voice, and I can see the environment. But on the other hand I also want text so I can look back and I think I could find more details there. Maybe a video message works better to catch my attention and then a text for more information. A short message with a nice picture would work as well, but I don't think the picture should be medical.

Marlou: Do you have any idea what kind of picture it could be maybe?

Philipp: I'm not really sure but maybe just of people that I can connect with so I maybe think 'hey maybe that's something for me.'

Katharina: I would prefer a text, because I think it is more reliable and it is easier for me to go back to than having to watch part of a video again.

Vivienne: I think a video can be dangerous because everything can look too perfect and that creates a distrust. Or it can work too actually because you can see the company maybe and see that it is real and trustworthy, but it should be culturally adapted.

Jaqueline: A video is nice but it should contain a lot of information as well, not just nice visuals. Unless the video is only there to create awareness and to show what the company looks like, but I would also like a text.

Part 3: German culture

Marlou: From the conversation it sounds like Germans are high on uncertainty avoidance and that they are rational and independent. Do you find this to be true?

Katharina: Yes, definitely. I would want lots of facts and figures. For example, percentages of people who do experience side effects and those who don't. I would also want to know exactly what the side effects and other dangers could be before I would even apply. I know other people can be helped with this and that I can earn a lot of money but my health goes before that so unless I know for sure there are no risks I would not participate.

Philipp: But in a way there is always a risk if getting headaches and other side effects. That's why they are testing the medication.

Katharina: Yes, but I mean that I should know to what extent. Like is it just a light headache or a heavy migraine. And how long does it last. And I don't want to get any scary side effects later on.

Vivienne: I think uncertainty avoidance is most important. I would want to know the following things; is the medication safe, what are the side effects and how bad are those, will it harm my body, and I would want to know what exactly happens when I am in the clinic.

Philipp: Of course I want to know if it is safe but I would also appreciate honesty. I am sure they have to mention all the possibilities because of legal reasons, but it would help if there is a scale of likeliness for example.

Katharina: It would also make a difference for me if it is the first time the medication is tested on people or if it is already existing medication that is improved.

Jacqueline: I think I would also like to be involved in the process. I would like to know what happens with the medication I tested. Like, was it a successful trial and does the medicine goes to the next stage? Or does it have to go back to the lab and do they have to improve it because there were issues during the clinical trial. I would also be concerned about my health after the trial, so I would like to know the medication is out of my body.

Marlou: PRA is now in the process of translating their website from Dutch into English. Germans have to speak sufficient English in order to go to the clinic, but do you think the website should be translated into German as well? Or do you think that if the website is only in English it will already filter the Germans who already speak English.

Katharina: I would say the website should definitely be in German. Many of my friends in Germany speak good English but they would never read a website if it was only in English.

Vivienne: I don't think I would even read it if it was only in English and my English would be perfect for the clinic. I would also trust the company more if the website was in German because when they ask for Germans students to participate, I would assume they could at least make an effort to make it easy for Germans to access important information. I think most people will read all the information so if it says that in the clinic you can only speak English because not all the nurses speak English the Germans that cannot speak English won't sign up.

Jacqueline: Yes, I agree. It would make me feel the company understands that it is important information and that I would like to read that in my mother language. You said that they call you for a screening right? If they just so that in English, they can filter out the people who do not speak English well enough to come to the clinic.

Philipp: I must emphasize that they should find a good and professional translation company and probably not do it themselves. If the translation is not hundred percent right, I would probably not trust the company.

Vivienne: Oh yeah I agree with that. If the text did not look professional I would not be interested anymore.

Marlou: I was wondering if students in Germany usually have a job on the side and if there is a government organization that helps student pay for their studies?

Jacqueline: You can get a loan from the government depending on how much money your parents make, but this loan has to be paid back. Most German students have a job on the side I think.

Vivienne: Yeah in Germany I know most students have a job. In the Netherlands I do not know many students who work because we don't speak the language.

Philipp: I know a lot of German students who just get money from their parents and don't have to work.

Marlou: Do you think that German students would be interested in participating in clinical trials? and has your opinion about participating in a clinical trial changed after this focus group?

Philipp: Yes, I think so. It sounds like an easy way to make a lot of money in a short time which I think many German students like. And my opinion hasn't changed much. I am still interested if there is a trial that suits me.

Katharina: I think as long as the safety concerns are addressed about the medication, and if the company looks trustworthy German students would be interested. My opinion has not changed that much. I think if I would not have to draw blood I would be interested.

Vivienne: I agree. I think the design of the website should look professional, and the content should be what people want to know about the trials. My opinion changed a little bit. I think If I have all the information about the safety and side effects I could probably be interested because I would not be so scared anymore.

Jacqueline: I think there is definitely a group in Germany that would like to make a lot of money in a short time like Philipp said. I still don't know if I would be interested, but information about safety would help.

6. Survey questions

The survey consisted of 13 questions and was conducted through www.surveypplanet.nl. The questions were all multiple-choice and by some it was possible to choose more than one answer. For some questions survey participants also had the opportunity to choose 'other' where they could add an answer that was not already one of the answer possibilities.

Introduction of the survey:

For my graduation thesis I do research in order to create an online marketing communication strategy to make German students aware, and hopefully interested to participate in Clinical Trials at PRA Health Sciences. In the survey there will be a short explanation of what a Clinical Trial is for those who are not familiar with it. This survey contains 13 questions and should take about 2 minutes to fill out.

Thank you very much!

Survey questions:

1. Gender
 - Male
 - Female

2. Have you ever heard about clinical trials for medical research?
 - Yes
 - No

3. A clinical trial is the first phase where medication is tested. In this phase a very small dose of a medicine is given to healthy volunteers to test if the medication would have possible side effects (such as headaches, nausea etc.). During a clinical trial it is usually not tested whether the medicine cures a specific illness, but only on possible side effects. Once a medical trial is over, those who participated receive a financial compensation for their participation anywhere between €100 to €5000 depending on the length and difficulty of the trial.
Based on this information, would you be interested to participate in a clinical trial?
 - Yes
 - No

4. What would be the most important reason for you willing to participate in a clinical trial?
Please select all that apply
 - Financial compensation
 - Helping other people
 - New experience
 - Other

5. What would be the most important reason for you not willing to participate in a clinical trial? Please select all that apply.
- Safety concerns about the medication
 - Safety concerns about the clinical process
 - Concerns about hygiene during the clinical process
 - Not enough time
 - Other
6. Would the opinion of others be a factor when you decide to participate in a clinical trial or not? Please select all that apply.
- Yes, the opinion of my parents
 - Yes, the opinion of my friends
 - Yes, the opinion of my doctor
 - No, only my own opinion is important when making this decision
 - Other
7. Could any of the following possibly convince you when informing you about the process/risks/benefits of participation in a clinical trial? Please select all that apply.
- A doctor
 - A former volunteer who participated in a clinical trial
 - My own doctor
 - A company representative
 - Someone from the pharmaceutical industry
 - A patient who uses medication everyday
 - No one can convince me
 - Other
8. On which online communication channel(s) do you think you would notice an advertisement about clinical trials? Please select all that apply.
- Facebook
 - Instagram
 - Google ads
 - Twitter
 - YouTube
 - Website for student jobs
 - Other
9. Which online communication channel(s) would you consult to get more information about a medical trial? Please select all that apply.
- Facebook
 - Company website
 - Google
 - Yahoo
 - YouTube

- Blogs
- Startpage.com
- Other

10. What information would you look for **first** in an online message about a clinical trial?

- How much money I receive for participating
- The length of the trial
- Which illness the medication that will be tested during the trial is for
- How the medication will be applied (oral, needle, band aid etc.)
- The possible side effects the medication may have
- Other

11. In what form would you like to get more (detailed) information about clinical trials?

- Informative text
- Informative video
- Other

12. Would the design of the website influence whether or not you would view the company that offers the clinical trial as a trustworthy company?

- Yes
- No

13. Would the company seem more trustworthy to you when they offer all the information about clinical trials on their website in German (besides English)?

- Yes
- No

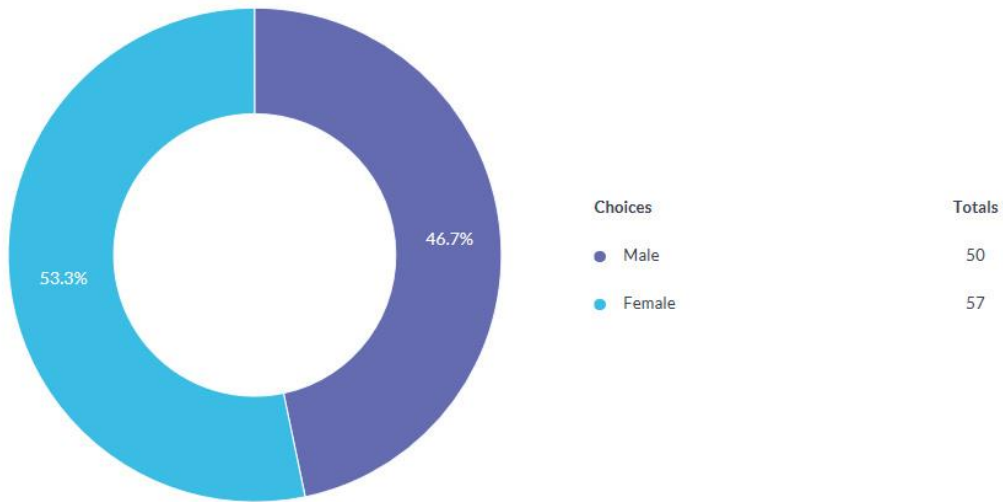
End of survey.

7. Survey results

Between the period of December 6th and December 15th the survey was taken by a total of 107 participants. All questions were required to fill out in order to complete the survey. Therefore, no questions were unanswered.

8.1

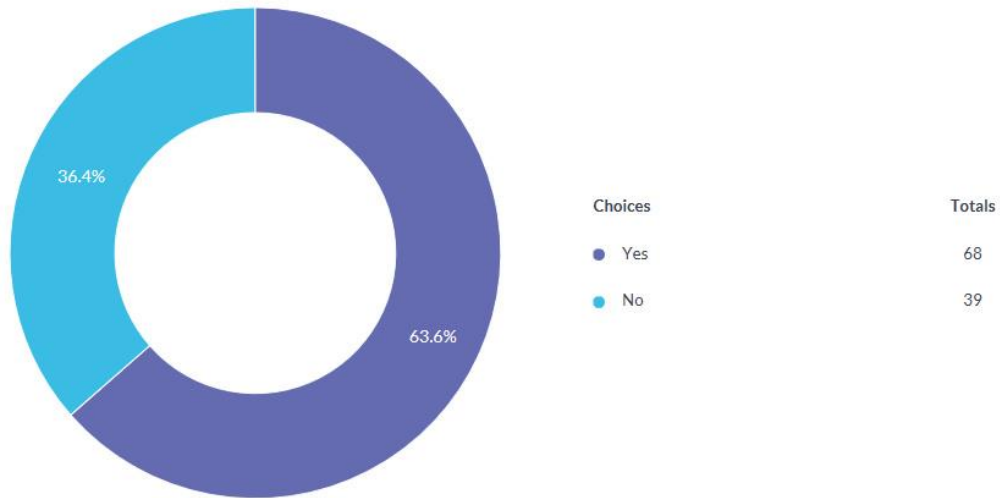
Q1 Gender
Multiple Choice



8.2

Q2

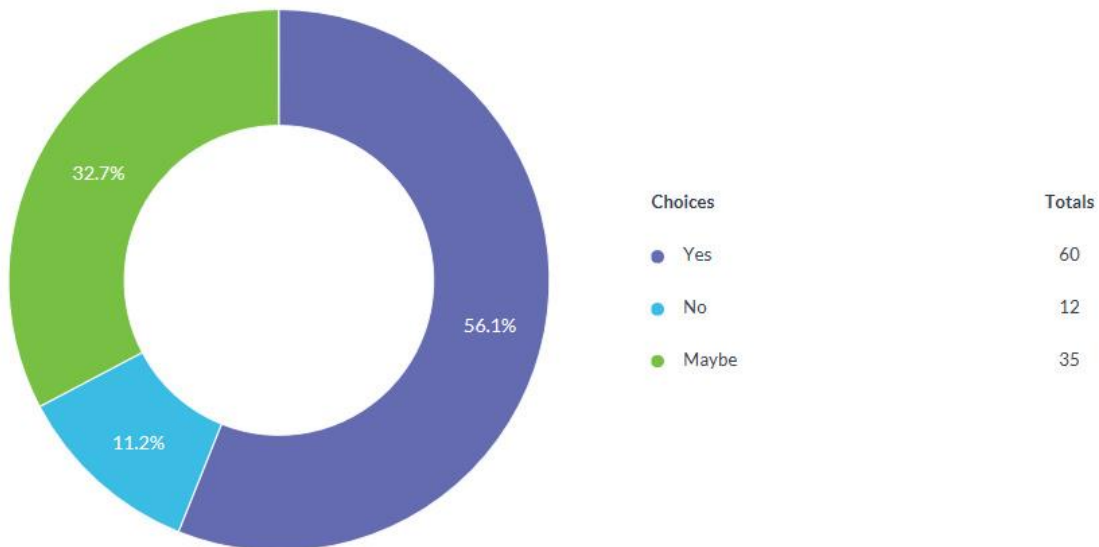
Have you ever heard about clinical trials for medical research?
Multiple Choice



8.3

Q3

A clinical trial is the first phase where medication is tested. In this phase a very small dose of a medicine is given to healthy volunteers to test if the medication would have possible side effects...
Multiple Choice

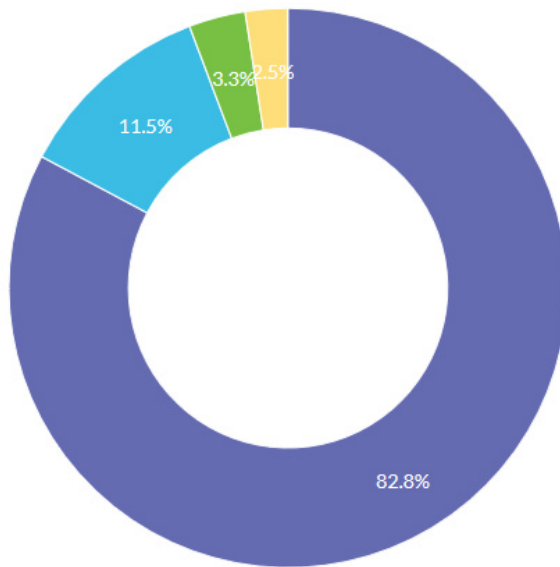


8.4

Q4

What would be the reason(s) for you willing to participate in a clinical trial? Please select all that apply.

Multiple Choice



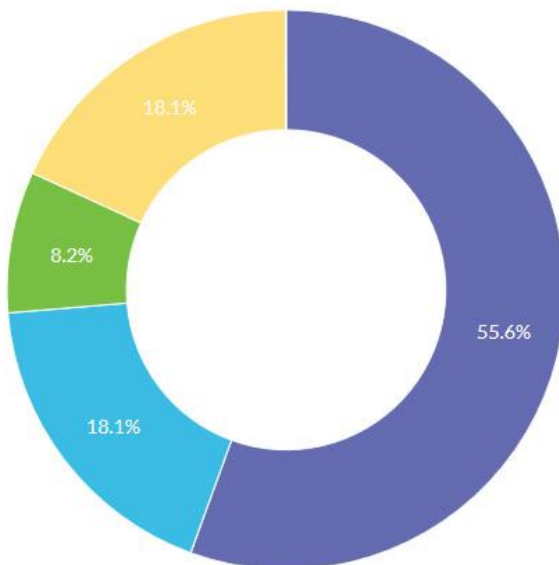
Choices	Totals
Financial compensation	101
Helping others	14
New experience	4
Other	3

8.5

Q5

What would be the reason(s) for you not willing to participate in clinical trials? Please select all that apply.

Multiple Choice



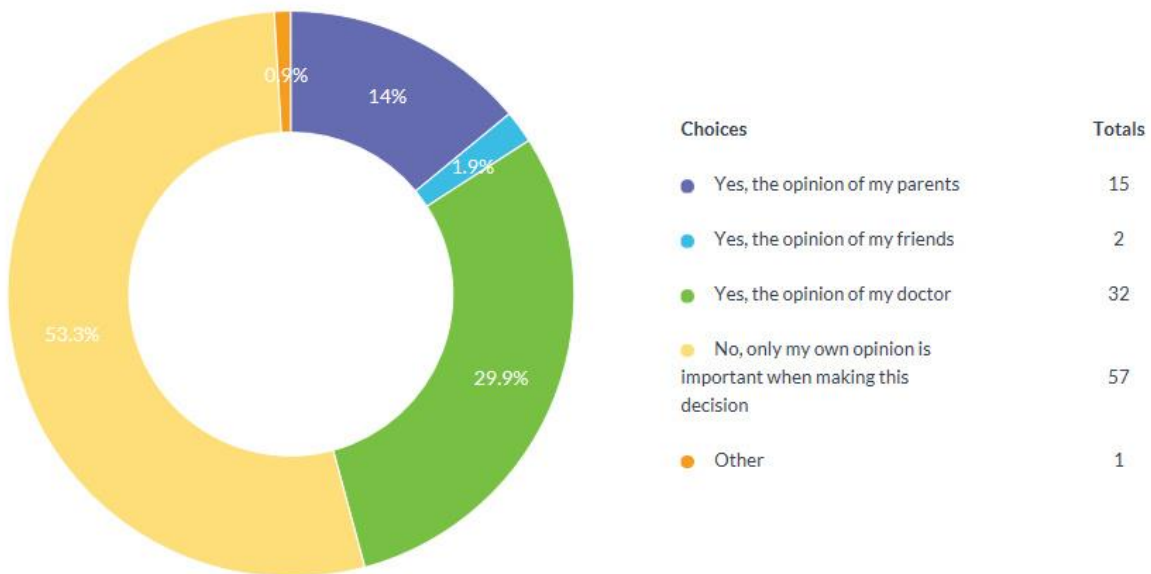
Choices	Totals
Safety concerns about the medication	95
Safety concerns about the clinical process	31
Concerns about hygiene during the clinical process	14
Not enough time	31
Other	0

8.6

Q6

Would the opinion of others be a factor when you decide to participate in a clinical trial or not?

Multiple Choice

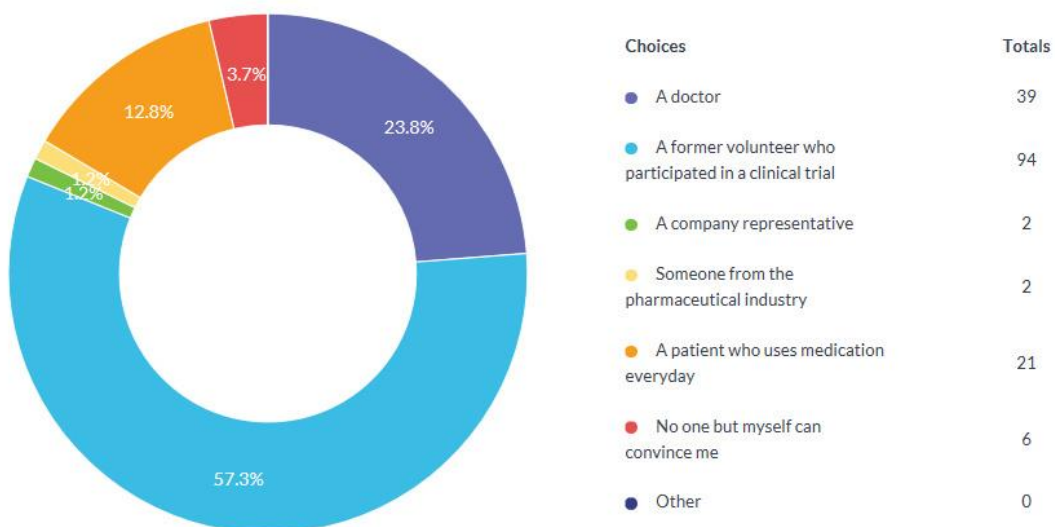


8.7

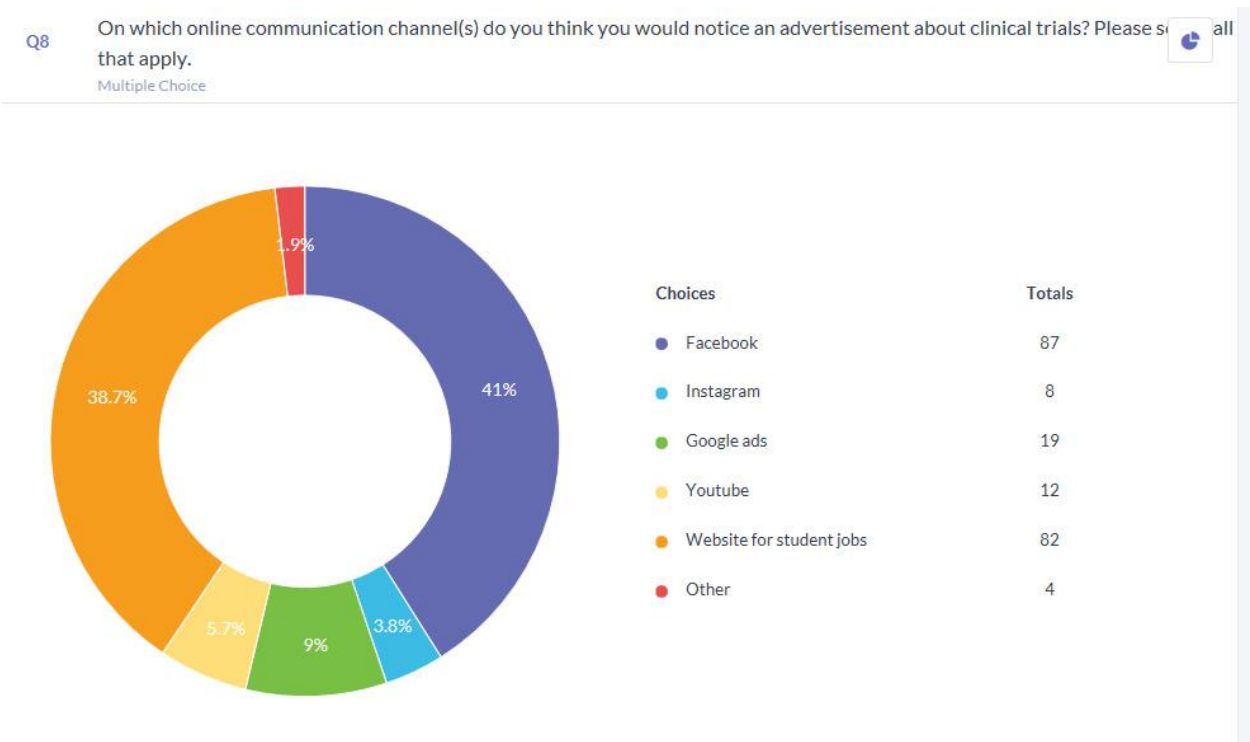
Q7

Could any of the following people possibly convince you when informing you about the process/risks/benefits of participating in a clinical trial? Please select all that apply.

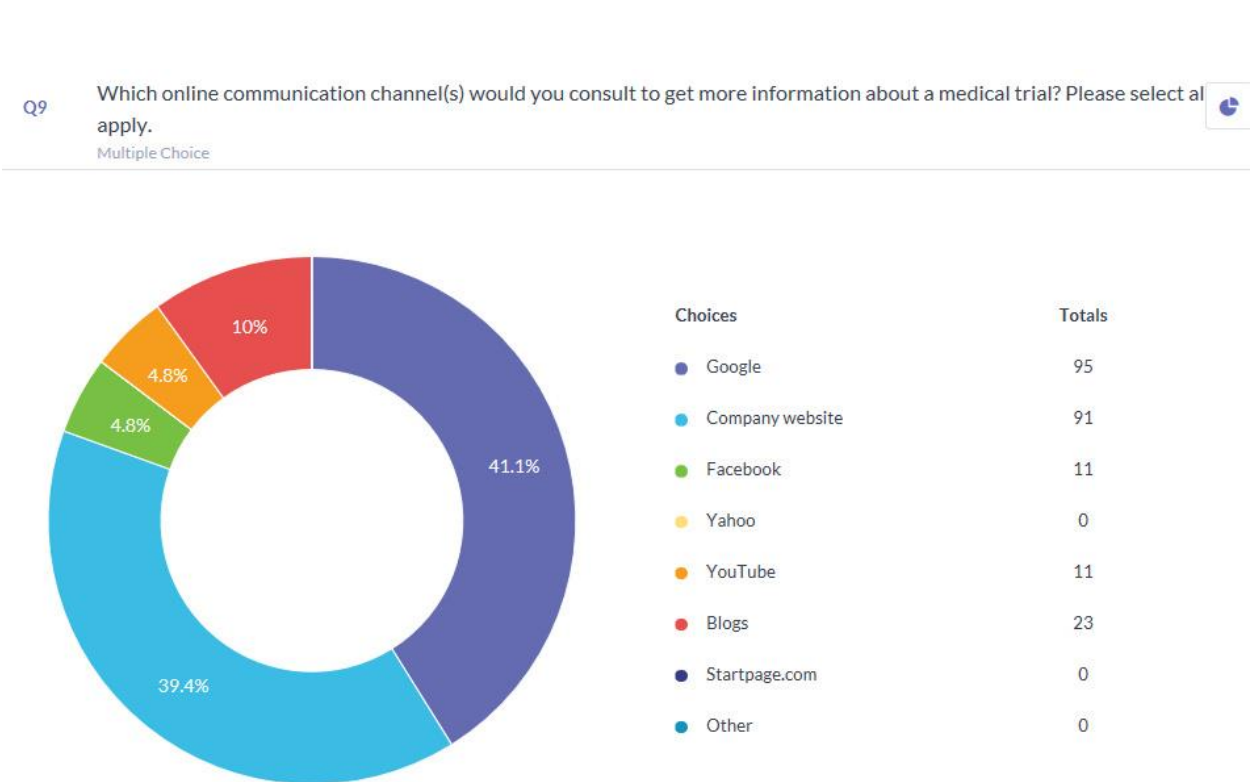
Multiple Choice



8.8



8.9

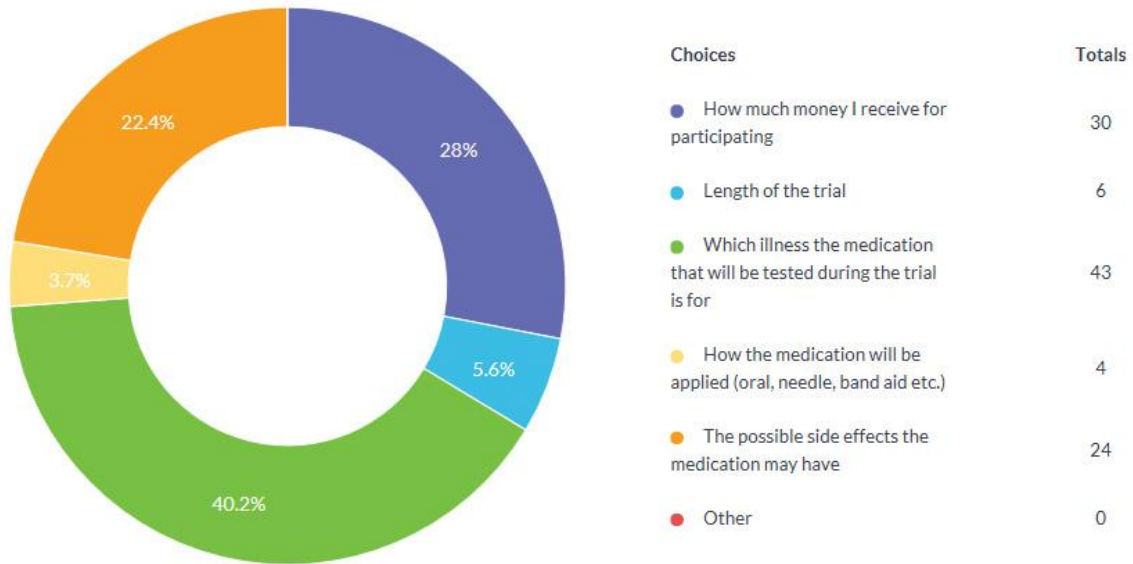


8.10

Q10

What information would you look for first in an online message about a clinical trial?

Multiple Choice



8.11

Q11

In what form would you like to get more (detailed) information about clinical trials?

Multiple Choice

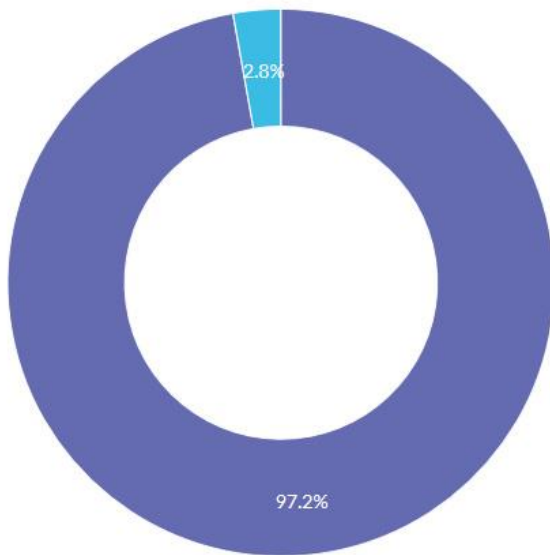


8.12

Q12

Would the design of the website influence whether or not you would view the company that offers the clinical trial as a trustworthy company?

Multiple Choice



Choices

Yes

No

Totals

104

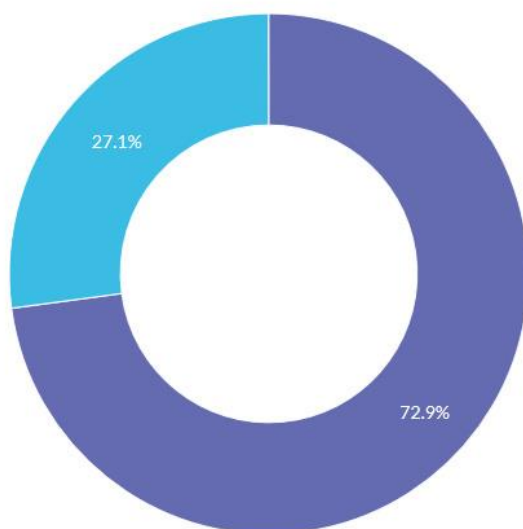
3

8.13

Q13

Would the company seem more trustworthy to you when they offer all the information about clinical trials on their website in German (besides English)?

Multiple Choice



Choices

Yes

No

Totals

78

29