

PROBLEMS OF EXPERIMENTAL RESEARCHES CONDUCTED WITH  
THE USE OF THE INTERNET BASED ON A FAILED EXPERIMENT  
ON THE ATTITUDE OF POLISH PEOPLE TOWARDS SOME  
NEIGHBORING NATIONS.

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ABSTRACT

The contemporary visual culture suggests to a modern person that a visual content has dominant influence on the information we acquire and it is largely responsible for shaping our attitudes and opinions of others. The experiment that is described here is entitled: "A research on the attitude of Polish people towards some neighboring nations" and its aim was to evaluate this theory. There were two experimental attempts, both withheld because in both cases the research groups stopped sending their responses. This drew the researcher's attention to difficulties occurring when using the Internet as a research tool. The final part of the article contains advantages, and disadvantages of doing a research by the Internet as well as conclusions based on personal experience.

**Keywords:** pedagogical experiment, information, image, research, change of the attitude, polls, visual culture, the Internet.

The Modern world - unlike in the past - is represented most of all by image. In the past, image was just one of the components of a culture, nowadays we have a visual culture represented mainly by film and photography - usually online photography. The pedagogical experiment that was conducted in June/July 2013 and then repeated in November 2013 was supposed to prove that today it is the image that has the most influence on the information people acquire.

An experiment itself (latin *experimentum* - an attempt, a test) is "a method of observing a phenomenon purposefully induced by a researcher, in an environment with conditions controlled by the researcher with a goal of finding the answers to questions concerning the results of introduced changes" (Maszke, 2008, p. 176). To be even more precise, a pedagogical experiment, according to Mieczysław Łobocki, is "a method of researching phenomena connected with upbringing and education, induced purposefully by a researcher in a controlled environment in order to study them" (Łobocki, 2003a, p. 106). Monitoring of an Internet experiment is a compulsory condition of a successful research using this method. Władysław Zaczyński states that "an experiment is a method of scientific research of a specific part of an



educational reality by introducing new processes or by changing some aspect of them and observing the results" (Zaczyński, in: Pilch, 1998, p. 43).

The aim of the experiment was to demonstrate if and how information influences a person's opinion if there was additional, visual content. The kind and form of information depends on the media it goes through: television (sounds and pictures), radio (sounds and voices - traditional radio, not the Internet one), newspapers (printed texts usually with photographs), and the Internet (all those mentioned options are available).

With different media, there are different methods of manipulating information, especially if there are visual, commentating materials attached to written information. Those materials may be considered the proof of authenticity of presented texts and may reinforce, modify, change or create an opinion. Our attitude to other nations and our self-esteem depends on the information we get as well as the means we get it from.

#### THE EXPERIMENT – TWO ATTEMPTS

A study group was introduced to the topic "A research on the attitude of Polish people towards some neighboring nations". Materials that were used consisted of historical texts of various origins, mostly from mainstream history magazines, which depicted drastic experiences of Polish people during the second world war as a result of actions of neighboring countries: Germany, Russia and Ukraine.

The thesis that was introduced before the research was: *Information (descriptions of the second war crimes) with visual content (pictures of victims) causes of the change of opinion of Polish people about countries which committed those war crimes.*

The independent variable "X" is a visual content (graphic photographs of Polish war victims from the second world war) and the dependent variable "Y" is attitudes (positive, negative or neutral) towards some neighboring nations in the context of presented visual material.

The Internet was used during the research - materials were sent by emails. The first target group consisted of volunteers who responded to a posting on Facebook. One experimental design with one control group was used as well as initial and final measurement of the dependent variable. In the first research the age of the study group was from 17 to 32 years and education and history lore levels were varied. The number of male and female participants was more balanced in the first experiment than in the second.

The key to the experiment was to modify the independent variable, which came in two forms:

- fragments of historical texts
- fragments of the same historical texts accompanied by photographs of Polish war casualties

The experiment was to show how an independent variable affects a dependent variable - people's attitudes. In the first stage of the experiment, participants were sent a pretest along with information that the research is anonymous, divided into 3 parts and that the answers are not graded but calculated and saved as numbers or

percentages. The pretest was to determine participants' attitude towards neighboring nations and their prediction of those nations' attitudes towards Poland.

In the second stage of the experiment, 3 research groups were randomly formed: 2 experimental groups and one control group and each group consisted of the same number of people. Each group received specific sets of materials: the first experimental group received only written materials, the second group received the same written materials along with visual content (photographs). The second group had been warned that the visual content was graphic and there was a possibility to withdraw from the experiment - one person took that option. The third, control group received neutral, historical materials about everyday life in the Republic of Poland at the time of war. Each group also received three short corresponding questions whose purpose was to check if the participants had read the texts.

There was a final measurement in the last part of experiment - the same questions about attitude towards neighboring nations and their supposed attitude towards Poland were used in a pretest and in an evaluation test. The results were analyzed, presented in figures or percentages, and final conclusions were drawn to establish how participants' attitudes changed after being introduced to the materials and content.

The main research problem was: How do historical texts with and without visual content affect people's opinions?

There were also additional objects of study. The researcher wanted to find out if the nature of photographs (photos of war casualties) affect participants attitude. There were also specific questions about the course of the research such as whether the amount of text affects participants' involvement, if the lack of personal contact with the researcher (lack of direct control) affects the results, if the use of the Internet as a research tool affects the results.

The first pedagogical experiment was a failure because participants withdrew from the experiment. There were 36 people in it initially and the results of the pretest showed that Polish people's attitude towards neighboring nations was mostly neutral, except concerning Germans - most participants chose "I am sometimes annoyed by them", Russians - most participants chose "I do not trust them, I believe we must be cautious with them" and "I am afraid of them, they are a threat to us" and concerning Czechs - most participants chose "I like them".

It seemed that participants believed that most neighboring nations also have a neutral attitude towards Polish people except for Germans who, according to them, "consider us a helpless nation and cheap manpower" and "despise us and feel superior" and Russians who "despise us and feel superior" or even "hate us" and Czechs who are supposed to "like and respect us".

Unfortunately the results were inconclusive and cannot confirm or refute the thesis as participants gradually withdrew from the experiment and stopped sending their answers. Only some additional research problems found their answers. The most logical explanations for this situation are:

- lack of participants' involvement in the experiment fuelled by large quantities of material to read (26 pages devoted to materials about three countries - however those materials were scans of newspaper articles and relatively occupied only some parts of pages)

- probable low interest in history of average people (as common perception suggests)
- lack of involvement due to the use of the Internet as a research tool
- no direct researcher's control as the research was done by via the Internet which may have diminished motivation
- probably too much time was given to participants to read the materials (2 days) and send their answers (2 days, 4 days total). When the research was conducted on the spot, with direct contact between the researcher and participants, the researcher was able to monitor and control the experiment more thoroughly. Participants were also more concentrated on the task as there was a time limit. During the experiment on the Internet, the lack of direct supervision resulted in only 6 people remaining in the third stage out of the initial 36.

The second experiment was done in a different way. The researcher announced to students during her classes that she was looking for willing participants in an experiment. She explained what the experiment was about, how long it was supposed to take and that there were to be 3 stages. A list of volunteers was established and their email addresses collected. After the first stage of the experiment, the participants were randomly selected for two groups, with no control group whatsoever. The rest of the experiment detail was left unchanged although the amount of materials was decreased and the time was shortened.

The study group of the second experiment consisted of 26 people, age from 22 to 25, with 70% of participants living in a city.

**Table 1. The characteristic of the participants**

Gender	Polish citizenship	Self assessed history knowledge level
22 females 4 males	All participants	- I remember selected facts: 27 - I am good at history: 3 - I am very interested in history: 1 - No answer: 1

Source: Own research.

**Table 2. Attitude towards neighboring countries**

Neighboring country	I am fascinated by their culture and nation	I consider them to be a great country	I like them	There are things I appreciate in their country	I am indifferent	They sometimes annoy me	I do not trust them, I believe we should be vigilant when contacting them	I fear them, I consider them a threat	I hate them
Germany	2	2	-	8	1	6	4	1	2
Czech Rep.	1	-	15	3	2	2	1	-	-
Slovakia	1	-	7	1	9	1	-	-	-
Ukraine	1	-	4	1	15	1	-	-	-
Belarus	-	-	2	2	12	2	-	-	-
Lithuania	-	1	4	1	14	1	1	-	-
Russia	1	4	-	1	3	4	10	6	-

Source: Own research.

Similar to the first research, there were most answers "I like them" and "I am indifferent" about Czechs and Slovaks; most answers "There are things I appreciate in their country", "They sometimes annoy me" and "I do not trust them, I believe we should be vigilant when contacting them" about Germany (from most popular answer to less popular). With Russia, again similar to the first research, most answers were "I do not trust them, I believe we should be vigilant when contacting them", "I fear them, I consider them a threat" and equal number of "They sometimes annoy me" and "I consider them to be a great country".

**Table 3. Attitude of neighboring countries toward Poland**

Neighboring country	They like and respect us	They consider us to be a brave nation and admire our achievements	They want to help us become a better country	They appreciate some of our traits	They are indifferent	They are sometimes annoyed by us	They consider us a helpless nation and cheap manpower	They despise us and feel superior	They hate us
Germany	-	-	2	3	9	6	3	3	-
Czech	6	2	5	4	1	1	-	-	-
Slovakia	6	-	5	2	6	2	-	-	-
Ukraine	2	2	3	3	6	3	-	-	-
Belarus	1	-	1	2	10	3	-	-	-
Lithuania	1	2	2	1	9	1	-	-	-
Russia	1	-	2	1	4	13	2	3	-

Source: Own research.

These results suggest that most countries are indifferent to Polish people except for Czechs and Slovaks who "want to help us become a better country" and "like and respect us", and Germany and Russia who "are sometimes annoyed by us".

The results are different in some parts from the results from the first research. One of the differences is a different attitude towards Ukraine<sup>8</sup> due to more historic awareness (as it was explained by the participants) and the most popular answer was "I do not trust them, I believe we should be vigilant when contacting them". There are also differences in supposed opinions of other nations of Poland. In the first research, the dominant opinions were that Germany "consider us to be a brave nation and admire our achievements" and "despise us and feel superior", that Russia "despise us and feel superior" or even "hate us" and that Lithuania "despise us and feel superior" and is "sometimes annoyed by us". The results of the second - repeated experiment are less evident, less brutal. This mitigation of opinions may be caused by unbalanced gender proportions and less diversity of age among the participants and as result less diversity in experience. In the second research there were only 4 men and 22 women while in the first there were 15 men and 21 women. There was also less anonymity as participants were the researcher's students.

<sup>8</sup> The first research was done in June and July 2013 so the present situation in Ukraine had no effect on it.

During the second research, the study groups were more willing to justify their answers e.g. "I am fascinated by Russia and I would like to learn more about it and visit this country but at the same time I consider it a big and powerful country that frightens me a little (.) and I distrust Ukraine and Belarus. I am not fond of Germans – I am annoyed by their sense of superiority and I feel threatened by their proximity. (.) In my opinion, Germans consider us inferior and do not like us. Czechs are not very fond of us either and it can be seen when Polish people visit their country but they are not hostile. (.) Russians have a great impact on what is going on in my country" or "I was impressed by Russians' firm stance against islamization". And another justification of an answer, this time from a man: "Russia and Germany are two superpowers which have an interesting history. One must remember that hatred leads to destruction" (Own research, 2013).

The aspect that was similar in both researches - with anonymous volunteers from Facebook and student volunteers - is the rate at which answers were sent back. Although the time given was optimized in the second research, it was again impossible to acquire enough answers to draw valid conclusions whether a description accompanied by pictures is more persuasive than a description alone. The few answers that were sent seem to indicate that a description has a greater effect than pictures as it more effectively stimulates imagination. In the first research, out of 6 people that took part in the third stage, 5 participants favored descriptions. In this stage, they were to answer an open question: "Which made a greater impression on you, descriptions or pictures?" Their answers were: "descriptions because they stimulated my imagination to a greater extent", "descriptions, as pictures present only one shot seen at a specific time, whereas descriptions let us see the whole situation", "descriptions, as each one of them is a detailed report" etc. In the second, repeated research, 5 participants out of 26 took part in the third stage and 2 of those people sent their answers after the deadline. All 5 people chose descriptions as "they give a detailed account of what happened". Answers given in the first and the second research lead to believe that the knowledge of war crimes committed by neighboring countries increased during the researches, have no effect on participants' attitude towards those countries. This conclusion cannot be entirely valid as the number of participants in the third stage was too low.

#### PROBLEMS WITH A RESEARCH DONE BY THE INTERNET

The Internet was used at all stages of the research: looking for volunteers and acquiring their email addresses (in the first research), sending instructions and clarifications, sending pretests, materials, evaluation tests etc, answering specific questions about the experiment.

Disadvantages as well as problems that occurred during the experiment are mainly the lack of direct control over the participants - the specific nature of the Internet may have affected their commitment. The researcher could not be certain if given materials were read by the participants or whether the participants tried to communicate with one another. It might have caused the generalization of opinions (one of the participants admitted in her evaluating test to contacting others about

the research). Lack of control over the time which demotivated participants, although they were informed about time limits before hand. Another problem was a large amount of time devoted to preparing materials and research disproportionate to the results - materials could not be sent simultaneously, the researcher had to wait for individual participants to send their responses to continue with next stages of the research. There were difficulties with understanding instructions during the first research, it is not possible to efficiently correct any misconceptions. It would not be an issue with participants and the researcher converged. Insufficient feedback - although participants were instructed to contact the researcher in case of any doubts and were given two methods of communicating (email, Facebook and in the case of the second research, on the spot in the classroom). Out of 36 people, only 1 person in the first research contacted the researcher for explanations although there were 4 questionnaires with errors in stage I, 3 questionnaires in stage II and no errors in stage III. In the second research the participants were instructed face to face in a classroom and given a set time and there were no mistakes in the papers. Another problem was that there was no opportunity to pressure the participants who passed their deadline to send back their questionnaires although all participants were volunteers recruited through a Facebook announcement. A similar situation happened with students in the second research who also failed to fulfill the voluntary obligation. To sum up: the control of most external and distorting variables proved difficult when using the Internet as a research tool and without researcher's presence. It is difficult to carry out the experiment to the end and maintain a valid study group, especially if the research has multiple stages (this one had three stages) since there is little control over the participants.

There are many disadvantages of the research done by the Internet which may cause the experiment to fail and yet there are some advantages. The research can be nationwide, it is not confined to one city, institution, school (class) which was proved in the first research as participants were from Bielsko-Biała, Kraków, Wrocław etc. There are lower costs which in the Internet experiment consist only of researcher's work. Therefore, more materials like photographs or films may be sent (in the case of this experiment, there were many color photos and printing them would be expensive). A research by the Internet also allows the participants to familiarize themselves with the materials more thoroughly and provides more time to think over the answers than in a research done on a spot with a set time limit.

When comparing my own research and its advantages and disadvantages to the experience of other researches, there are some common conclusions about experiments conducted on the Internet. Other researchers point out some advantages such as reduction of research costs, possibility and simplicity in contacting many people at the same time, providing greater anonymity to participants. Exemplary disadvantages are: no possibility of checking who is really answering a questionnaire and if the person is truthful (one person can fill a few questionnaires from the same computer), possible low quality of hardware and problems with the access to the Internet, problems with computer skills (this disadvantage excludes elderly people the most), the Internet does not allow us to observe the reactions of participants, only the results of their actions and choices, the number of questionnaires

that are sent back is low (Siuda, 2009; Parzuchowski, 2006), the percentage of participants that withdraw is high despite researches being voluntary - in some researches that percentage is as high as 87% (Siuda, 2009, p. 164). According to Piotr Siuda "abandonment of the research may be the result of the lack of motivating stimuli like payment or other form of reward". This behavioral pattern was confirmed in the second research when one of the volunteers asked "What kind of benefits can we expect if we participate in the research?". This shows that a kind of reward was expected. Other explanations that are mentioned by Piotr Siuda are the lack of social pressure and obligation to participate (which are present when employees of a firm or institution are questioned directly, i.e. not via Internet) and unattractiveness and difficulty of a research (Siuda, 2009, p. 164).

The nature of the research might have been little attractive for both study groups (as it was mentioned earlier, unattractiveness might have been caused by low interest in history) but at least for the second group (only students) it could not have been difficult as materials were taken mostly from mainstream, history magazines. Some researchers suggest that participants might be motivated to stay until the end of a research by increasing the attractiveness or safety of a research web site. This advice could not be taken as the communication was done by emails. Other forms of motivations such as personal contact with the researcher, informing participants at which stage they are at or how long it would take, were utilized during both experiments and yet proved ineffective and did not produce valid results.

Another suggested form of decreasing resignation rate - payment for participation - is hard to take by an individual and independent researcher (that is not supported by an institution which can provide funding) who has limited possibilities of offering benefits, both monetary or other. This also eliminates one of the advantages of the Internet experiment - low costs. In the case of the second, repeated research it was possible for the researcher to offer the participants some positive marks for volunteering but the experiment was not examining the level of knowledge but rather opinions and so this procedure would have been unfair to active students not willing to volunteer and highly unethical as well.

Advantages and disadvantages described by other researches are given different values and a feature that is an advantage according to one researcher is not always an advantage in other researcher's opinion. This evaluation sometimes depends on the method used, for example on-line questionnaire (most popular method).

The research would probably be more popular and test groups would be more persistent if participation was rewarded with money or some other valuable gratification. There is a risk with this approach that participants would try to "match" their answers to the "expectations" of the researcher. A more controversial topic of experiment that would tackle issues like unemployment, limiting freedoms, evaluating certain politicians or parties, might persuade more people to participate and send their answers. It seems however there is no safe method of running an Internet research. Despite our preparations, predictions and planned attractions it might not work since we deal with a randomly selected group of people with different views and motivations.

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