

## CONCEPTION OF AN IMPROVED EDUCATION SYSTEM INCLUDING SURVEY OF VERIFICATION DATA

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### ABSTRACT

The dissertation describes the conception of a new education system that takes more account of the individual strengths of the learners. The focus is very much on intrinsic motivation, so that the population wants to solve a problem of its own accord and is supported as much as possible by the education system. Nevertheless, there are limits, such as a basic knowledge that must be adhered to. The system will be designed in the course of the dissertation based on various principles and then verified by means of surveys. Since this is a new concept, the questions were individually tailored to the education system. Nevertheless, key factors were determined that provide information about the quality of the system. The result of the dissertation showed that the population would accept the new concept and that the improvements would make sense. This was also confirmed by the surveys. The surveys were all conducted independently and in person. This took up a large part of the work of this dissertation. However, this ensures that the data collected is true and up-to-date. In the end, the dissertation can be considered a success, as it provides a basis for a modern education system. Although it is a long way to go to renew an entire education system and certain marginal discussions still need to be conducted, the dissertation offers a good basis for this, also because it touches on many topics that need to be taken into consideration. In summary, there is a need for some adjustment when looking at the survey results and the designed system could be used as a basis for this, so that the education system is up to date with the modern times and offers the greatest possible added value for the learners.

**Keywords:** Education system, digitalisation, modernisation.

### INTRODUCTION

Bildung ist nicht Wissen, sondern  
Interesse am Wissen. Hans Margolius

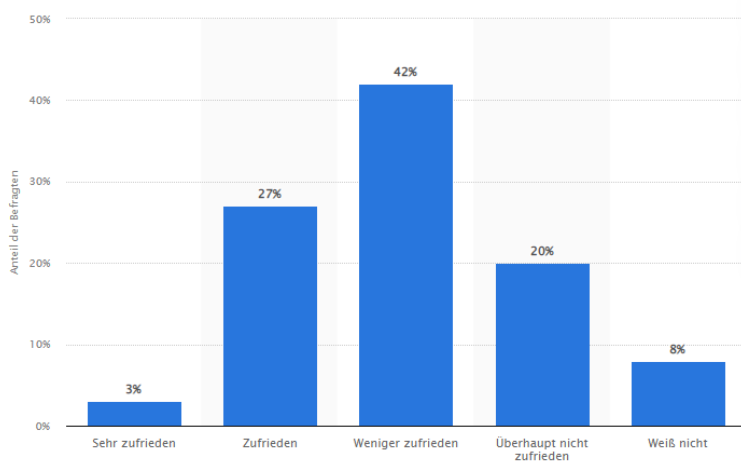


**Figure 1: Quote from Hans Margolius**

By quoting Hans Margolius (eng.: “Education is not knowledge, but interest in knowledge”), who was born in 1902, the core topic of the dissertation should be directly revealed. The aim of this is to design an educational system that is to be verified on the basis of statistical evaluation. The main aspects of the evaluation should be a wide variety of factors. Factors such as the efficiency of the new system as well as the learners' intrinsic desire to learn play a role. To return to Hans Margolius - the interest in knowledge should also be promoted. In order to achieve this goal, attention is also paid to learner satisfaction and a mood survey is conducted so that possible key factors that have a negative impact on intrinsic motivation are eliminated.

In the end, it is always better to act on one's own motivation than to always follow rules. Also with regard to life after completing the apprenticeship, it makes sense to be able to make independent decisions, or to know which path lies ahead, which strengths are present, but also which weaknesses.

Figure 2 shows satisfaction with the German school system.



**Figure 2: Satisfaction with the school system (Statista, 2022)**

As can be seen in the figure, only 30% of respondents are satisfied with the German school system. (Statista, 2022) This figure needs to be increased so that the majority of votes are "satisfied" or even "very satisfied". The happier learners are, the better they can learn. In addition, it is assumed that a person who can pursue his or her own learning interests more strongly is considered more satisfied, since intrinsic motivation leads to positive effects. (DHBW, 2022) Thus, the topic of the dissertation is very important because a large proportion of learners are dissatisfied. (DHBW, 2022). Another important factor is the search for identity after education. As described in the dissertation, many young adults are still looking for what is really fun and arouses their interest. (DHBW, 2022) This question should be discussed at school and solved in a playful way. Thus, more respondents would also be satisfied with the education system. Furthermore, an argument for this dissertation is that there are gaps between the different educational institutions in the current education system. A closed system should also be aimed at here, so that the transition from school to university or working life is ultimately only a change of location, but the learners feel and are well prepared for the change. This preparation can be achieved by slowly leading them towards working life. This will be described in more detail in the course of the dissertation, as this is precisely the content of the newly designed system.

**Hypothesis and aim of the work:**

The hypothesis described in this chapter lays the foundation for the thesis. A model is described here, which is then specified in the dissertation based on the data collected. Fundamentally, the model is a centralised education system that offers learners the opportunity to develop themselves. Centralisation is a very important point in this regard, as it is the only way to enable the greatest possible diversity of educational opportunities. For example, it would not be possible to teach mathematics in 10 different forms at an educational institution with 40 students per year. This would not be possible due to the number of teachers, and the aspect of cohesion in classes/courses would also not be possible. Thus, centralisation is necessary to make such a system possible. Another solution to the problem would be to digitise the schools better so that the teachers are relieved. The possible concepts are discussed in detail in the dissertation.

A further prerequisite for the emerging education system is that learners participate in and shape lessons out of intrinsic motivation. Learners should always be encouraged in their subject strengths, but a certain general knowledge should still be taught, otherwise only subject experts will result who have no overarching competences.

Furthermore, the dissertation attempts to design an education system that replaces all levels of education. Thus, when the model is applied, there should ultimately be one educational institution that ranges from primary school to a profession. In this way, gaps between the various institutions can be minimised. The goal is therefore not, for example, to take the Abitur at the Gymnasium, but to achieve qualification X at the educational institution. Here, current degrees could be used in order to be able to continue to serve internationally recognised structures. (e.g. Bachelor/Master). Another possibility here would be for the education system to lead to a direct profession, so that the connection is also created here. Ultimately, each learner should have the opportunity to find his or her own path. Subject choices are introduced early on. For example, the choice whether instead of 4 hours of maths there are now 5 in the curriculum. In this way, each learner has an individual curriculum, which is specified from year to year in order to finally reach a goal. Since the current level of knowledge of a Bachelor's degree (exemplary - applies to all degrees) can be achieved earlier, it is not a problem if the learner realises in an apprenticeship year that a subject was not the right one after all - then this subject is reduced again somewhat in the following year. However, this model is explained in more detail in the dissertation. In advance the only thing that is important for the hypothesis is that each learner designs an individual curriculum for him- or herself. However, there are also certain framework conditions. In the course of the dissertation, further topics will be examined that affect the education system and could have a significant influence on it. Examples are the unconditional income, the increase of social competences, digitalisation and homeschooling. Such diverse topics also flow into the generation of the recommendation for action, depending on the statistical result of the different topics.

It is fundamentally important that in the subject of education it should not be neglected that there will always be jobs that have to be done, even if they are not particularly satisfying. This problem will also be addressed in the course of the dissertation, that there are areas of expertise that must be carried out in order to maintain the existence of society. It is important

that there is enough personnel available or that these professions are attractive enough so that enough students will choose this path. In this context, the question is also addressed whether a lack of skilled workers in a certain field creates an intrinsic motivation to retrain afterwards. To give an example:

The population notices that there is little or no high-quality bread available because the number of good bakers has become very small. If the retraining were free of charge and there were no financial setbacks due to an unconditional income or something similar, certain parts of the population would solve the problem of the shortage of skilled workers on their own, because there is no disadvantage in retraining, but the goal can be achieved that there is enough bread again. Thus, the solution to the skilled labour problem would be based on intrinsic motivation. To generalise the example, it needs to be clarified how many professions are not carried out only because of remuneration/social recognition. - Even if the need has been recognised.

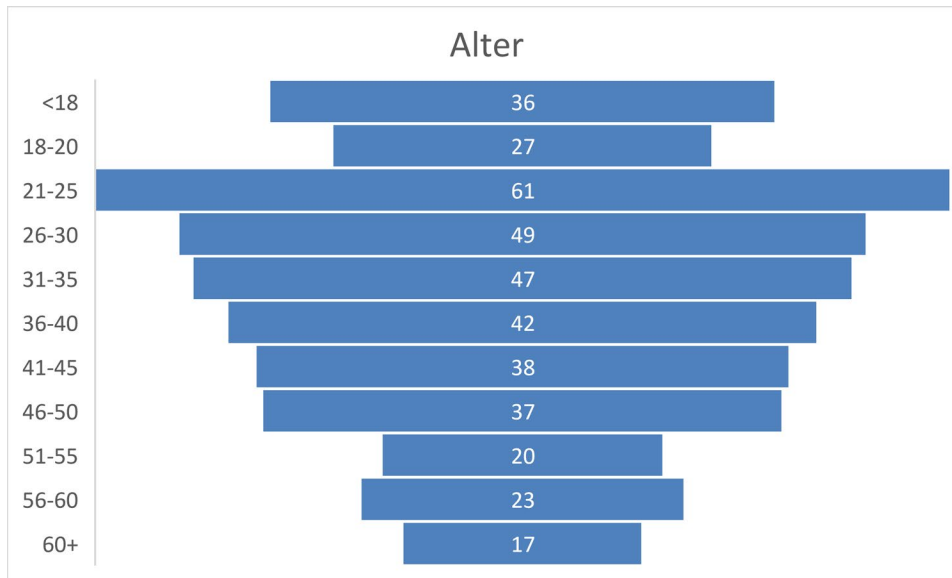
In summary, the hypothesis to be verified or falsified in the conclusion is the following:

"A centralised, intrinsically motivated education system is the best solution to achieve good and satisfying education in a modern, digital world"

### **Methods**

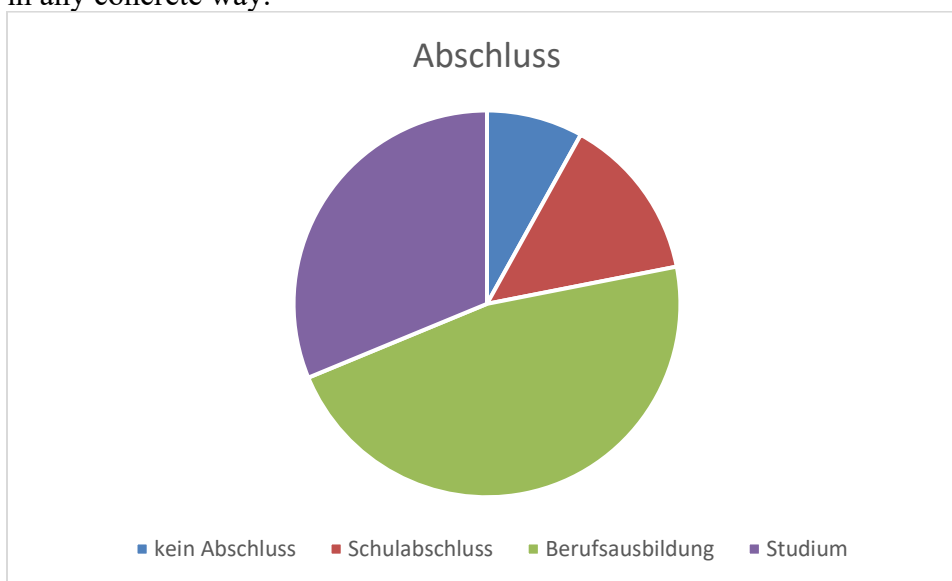
The method section describes the general procedure of the surveys, as well as the breakdown by age, degree and gender. All surveys conducted in the course of the dissertation were conducted in the period from 01.10.2022 to 23.10.2022. The weekends were used for this, i.e. 1, 2, 8, 9, 15, 16, 22 and 23 October 2022.

The surveys were not conducted digitally in order to talk directly about the topic with the 397 respondents who answered all the questions. The surveys were conducted in Stuttgart's city centre in order to obtain as broad a spectrum of age, gender and degree as possible. A total of about 850 people were approached. Understandably, not everyone had time for a survey. The results were documented in an Excel spreadsheet. This was also used to generate the diagrams of the dissertation, which were based on the data from the survey. Figure 3 shows the age distribution of the respondents.



**Figure 3: Age of respondents**

It can be seen that in the course of the survey, an attempt was made to represent as broad a spectrum of ages as possible. The highest number of 61 respondents was between the ages of 21 and 25. The trend has fallen in the direction of higher age. There were two reasons for this: There were more younger people available at the survey location, and they were also more enthusiastic about the topic and more open to disclosing their opinions and conducting the survey. Nevertheless, the possibilities were used and a broad spectrum was generated. It was more difficult to ensure that a broad spectrum of the various degrees could be achieved, as this was not roughly assigned to the respondents from the outset. Thus, the distribution shown in Figure 4 resulted rather than being influenced in any concrete way.

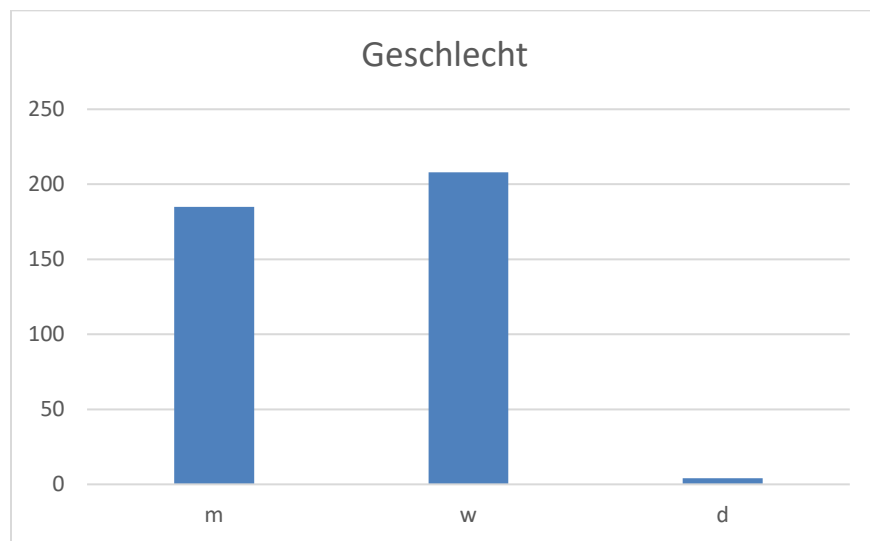


**Figure 4: Respondents' degree**

It can be seen here that a large proportion of respondents have completed vocational training, with a total of 47% of the votes cast. This is followed by studies with 31% of the

votes. The sector "no degree" has to be seen in relative terms, as a certain part of the respondents are still at school and thus did not have the opportunity for a degree. Finally, it was important that the entire spectrum could be represented in order to obtain as many different opinions as possible on the designed system. Or to be able to compare their opinions with the system.

The last characteristic that was collected in the course of the survey was gender. An attempt was also made to find a balance between the genders so that an equal picture could emerge. In the end, however, more women were interviewed. Among the four diverse people, there are not only people who are listed as diverse, but also those who do not feel assigned to the other two genders. With their consent, no new gender was listed, but they were added to the diverse group.



**Figure 5: Gender of respondents**

Figure 5 shows the exact gender distribution of the respondents. Here, women predominate with 208 votes, while 185 male respondents were interviewed.

## Results & Surveys:

### Surveys:

Overall, what can be said about the surveys is that much more research is needed, It is not enough to get a detailed picture of all the issues, but it provides a good basis, which was created through random interviews.

The method of interviewing random respondents in one city was deliberately chosen, as the education system affects all people, from all walks of life. This was the most effective method to get the broadest possible picture of opinions.

In addition to the surveys, there were many exciting discussions and conversations about education, society and the future of Germany. It was noticeable that many people are afraid of the future, no matter what class they come from. The fears are similar and very often concern capital and prosperity. Many people look at our systems and society and radiate a great dissatisfaction. It seemed that many subjects were unhappy. This made us even more

excited to be able to contribute to the future of education, so that future learners are more satisfied and the differences in education and social status offer a smaller advantage. Respondents seemed confident about the design of the new education system. However, many were concerned that the voice of this dissertation will never be heard. However, the attempt must be made to improve the education system and provide an advantage. Seeing that there are people who want to improve things, for the sake of society and fellow human beings, seemed to give hope to the subjects. They appeared confident and enthusiastic in spite of the worries they spoke about.

Seeing that the subjects are behind the concept shows in itself that the concept would offer an advantage if this could be established based on the marginal factors. The concrete proposals will be dealt with in the course of the dissertation.

### **Result**

The survey and elaboration show that an improvement of the education system is demanded by the population. (Survey, 2022)

Moreover, the concept was largely confirmed by the respondents. This is also shown by the interviews. The questions that led to the conception of the improved system were asked. Since the results of the surveys were positive, the population is basically convinced of the concept. (Survey, 2022)

Nevertheless, certain discussions need to be held in the follow-up and issues need to be monitored in the follow-up and in the long term.

As there is no further survey due to the fact that it is a new concept, no comparisons can be made here. If necessary, another survey should be conducted on an even larger scale. In addition, a survey in another country would be conceivable to confirm that it is an internationally applicable concept.

### **Discussion**

In the work, a lot of basic data was newly collected, so that the accuracy can be guaranteed. In summary, the data show that the designed system would offer great added value and that the population would be more satisfied with it than with the current approach to education. (Survey, 2022)

In order to introduce the system, certain issues would still have to be discussed, such as the financing of the conception. This is due to the fact that new IT systems have to be created and central educational institutions have to be established. This is ultimately associated with costs. The operation of the facility should not differ fundamentally in terms of cost. - Only the one-time expense has to be paid.

In the course of the dissertation, various suggestions and recommendations are made which would be useful to implement and would offer added value.

The recommendations are based on the findings of the survey conducted in the course of the

dissertation. Care was taken to ensure that the respondents could be open with their opinions. This and the expertise in teaching influenced the conception and thus also the recommendations. The goal was to create a concept that is verified with the help of test data and offers the learners the most intrinsic and stress-free progression possible. Care was also taken to ensure that the learners still receive a good education. (DHBW, 2022) (Survey, 2022).

## **CONCLUSION**

As this is a new conception of an education system, there are many marginal issues that still need to be discussed, but the dissertation provides a good overview of the issues and touches on various marginal factors.

As the world is changing faster and faster, the school system should also be made more adaptable. The conception could form a good basis for this.

In summary, however, it can be said that many people in the interviews believe in the system and are convinced that it would offer added value.

The aim of the dissertation was to design a system and to verify it by means of surveys. This goal was achieved. Whether the system is introduced in its entirety or in parts is up to the decision of the respective countries, but in the end it must be said that the dissertation shows that statistically better systems are possible and that a change in the education system is necessary.

The hypothesis put forward at the beginning is therefore confirmed.

"A centralised, intrinsically motivated education system is the best solution to achieve good and satisfying education in a modern, digital world"

In line with Mahatma Gandhi's quote, this dissertation is intended to be a first attempt to bring about change, no matter what hurdles have to be overcome.

"Be yourself the change you wish to see in this world" Mahatma Gandhi

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