Section 1 - Summary

1.1 Author(s)

Güler, Çörekci, state school, Physics teacher

1.2 Background

I have taught physics at education levels such as high school and secondary school for years and now I am teaching physics at ECA elginkan High School. I was the head of the physics department of my school and city many times before, and I prepared the annual coursework plans, and although the plans seem good and effective on paper, I saw that during the implementation phase of these, a system that pushes students to passivity and cannot support their learning processes. I have never had any difficulties in correcting the deficiencies in my school and in the region and seeking solutions for these deficiencies with the higher authorities, so I think I can successfully carry out this project.

1.3 Descriptive title

With the steam applications integrated into the course, effective, confident and knowledgeable students will be able to grow in the course.

1.4 Abstract

In the first two weeks before the schools open, we plan to give workshops tailored to branch teachers. We will select experts to introduce the digital tools to be used for workshops. For two weeks, we will hold a workshop for ten days, five days a week, for four hours a day. The contents will be processed synchronously with the subject of the courses.

I guess that the number of supporters will be low at first, but in my country, we already have a 2-week update seminar period before the schools open, and in this period, the current curriculum is a bit lacking for teachers and I think it would be more acceptable for teachers to fill this missing part with steam training. After seeing the benefits that the training will provide on the students, I think that the teachers will participate and support these trainings more willingly.

Section 2 – Goals

2.1 General goal

The problem I want to address is that in education, students remain very passive in the face of the curriculum and are insufficient in expressing themselves.

The solution I envisaged is to increase the use of steam tools and simulations in the lessons and encourage students to participate more actively in the lessons.

2.2 General goal description

My goal is to enable children to participate more actively in lessons by using simulations and STEA(M)-based education methods that provide better lectures to children and to contribute to children's more self-confidence. According to the Turkish research institute, the participation rate of students in live classes during the covid period is 47% and the active participation rate is 11%. One of the biggest reasons for this is that students are becoming more withdrawn during the covid period and they have great difficulties in attending classes. Thanks to the project I will do, I aim to ensure that children take an active role in the lesson with their phones and adapt to the lesson better.

2.3 Strategic goals

Time Strategies

As a time target, my plan is to implement this plan in my school next year by having the school give expert seminars on the digitization and steam compatibility of school courses with my teacher group I have established until the next academic year, and by obtaining the necessary permissions, if I can get the success I expect from the plan, by 2023, by obtaining permission from the ministry of education for the plan. I aim to establish project schools in the surrounding provinces and expand the system.

financial strategies

Although our school is a public school financially, it was founded primarily by the ECA foundation and the ECA foundation is one of the largest foundations in Turkey. Therefore, first of all, I aim to present my project to them and to see the difference it will create. In addition, we have an opportunity in Turkey. Turkish student parents are very self-sacrificing for the success of their students and they can donate a lot for various school needs. I can introduce my project to them with a seminar I will do.

In addition, we have a state institution called TUBITAK that supports science in Turkey, and I can apply for financial resources related to the project.

Communication goals

For the promotion of my project, I can first tell the teachers of my school and the principal of my school in the first year, and what Simulation and digital education will add to the students.

Necessary permissions can be obtained from the Ministry of Education through our Education Communication Officer.

Section 3 – Targets

3.1 Beneficiaries

The group that will benefit the most from the policy I propose is the students. Because in the current education system, students are only buyers and they have serious problems in expressing themselves and attending classes. The majority of current students talk on the phone a lot, play games on the phone, but very few use the phone as a teaching tool. In our schools, there is a smart board in every classroom, and I think that showing the simulations on these boards, children's participation in the lessons via their phones, and the use of their phones online or offline everywhere in the home studies given to the children over the simulation, by removing the education from the boundaries of the school and spreading it into the student's life will increase success. kahoot at my previous school!

On the application, I constantly explained the subjects of physics to the students through entertaining reminder competitions and the simulation that he prepared the project, and I saw an increase in my students' participation in the course and their success in the end-of-year exams compared to last year's education year.

3.2 Recipients

I do not think the recipients of the policy and beneficiaries will be separate

3.3 Special needs

My policy aims to increase the success of the general student population and to create more active students with telephone and simulation applications.

Section 4 – Value Proposal

4.1 Value proposal

We can ensure that students participate more actively in lessons and use technology more educationally.

4.2 Results

Teachers at my school are introduced to the STE(A)M educational approach.

4.3 Impact

In the long term, I plan that simulation and STEA(M)-based learning will be applicable for the next academic year, especially in physics, chemistry and biology courses.

Section 5 – Costs

5.1 Cost structure

- External consultants
- Administrative costs
- Financial costs (interests on loans, etc.)
- Travel & Accomodations
- Furnishing
- Software
- Miscellaneous services

5.2 Funding opportunities

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Section 6 – Action Plan

6.1 Activities

Introductory Presentations to Teachers

permission from the ministry of education

Sponsorship activities

Teacher training presentations

Adaptation stages of students

Section 7 - Risks

7.1 – Risks/Competition

a. Risk description

Introductory Presentations to Teachers

Sponsorship activities

Teacher training presentations.

b. Probability

1

c. Severity

2

d.   Mitigation strategy

Presentations to teachers should be well prepared and explained in a way that is not incomplete in the process.

Regarding sponsors, it can be solved by explaining the stages and benefits of the project well.

7.2 – Risks/Opposition

a.   Risk description

permission from the ministry of education

b.   Probability

1

c.   Severity

1

d.   Mitigation strategy

In order for the ministry of education to accept the project, the effectiveness of the project can be demonstrated by bringing the officials to the school and enabling them to see what has changed in the school.

7.3 – Risks/External Menace

a.   Risk description

change of teacher and principal in charge of the project at school

b.   Probability

2

c.   Severity

1

d.   Mitigation strategy

If the operational stages and objectives of the project are established regularly, the possibility of the missing persons in the project operation group to be felt in the completion of the project can be reduced.