Short Essay on Planning and Implementing EdTech Projects in Germany

IDE 772-Educational Technology in Instructional Settings

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Context

The Educational Technology (EdTech) market in the world today is growing at a rapid pace. The ability to implement EdTech effectively and efficiently across the globe is becoming increasingly critical. There is a growing need to incorporate EdTech in existing instructional practices to enhance the educational experience and learning outcomes. From an international perspective, every global region has a unique set of circumstances that paves the way for how EdTech is implemented within its educational system. Whether you are talking K-12 or higher education learning, each region must conduct the analysis necessary to effectively implement this technology within its classrooms. Good analysis ensures each education system can compete within the global EdTech market. This short essay will look at some of the analysis that should be conducted by the country of Germany, in the European region, to implement EdTech projects efficiently and effectively within its education system.

State of Germany's EdTech

EdTech is becoming increasingly popular in the European Region and especially in Germany. Over the past few years, it has grown but the recent pandemic has caused a push in this capability in a rapid fashion. For many years prior to the pandemic, the digital age efforts of the country of Germany were subpar. A recent article I read by (Uling, S, 2013) stated that "German schools are reluctant to go 'digital, and that Smartphones, notebooks and tablet computers are an integral part of daily life for most young Germans these days but, the use of digital media in the classroom isn't catching on as fast as one might expect." As this was the thought back in 2013, a lot has changed in the world since then. New discussions must exist when looking at the capabilities of EdTech in German classrooms.

For Germany, the increased need for EdTech has kicked into high gear. According to (Trines, S., 2021) a Quality Assurance Director and Editor at World Education News and Review, "the German federal government has promoted "digital competencies" as a central concept in education for several years—as recently as 2019, it committed €5billion euros (US$5.8 billion) for the modernization of its internet infrastructure and the increased supply of digital devices in Germany's 43,000 schools." As you can see a "need" has been determined during a detailed needs analysis, and now moving forward the right planning and implementation will be needed to ensure EdTech is efficiently and effectively implemented in this region of the globe.

EdTech Planning and Implementation

There are several factors that must be considered to ensure that the planning and implementation of EdTech within the classroom is successful. For the purpose of this short essay, I will look to focus on what I see as the two most important factors.

The first factor that should be considered is connectivity. Wireless abilities throughout the globe are an issue and the country of Germany is not an exception. Germany must be able to incorporate the right logistics and resources into its EdTech capabilities. Connectivity must ensure that it is easily accessible in all parts of the education system for all students. Just handing out a device or platform will not help its students achieve success in their learning

outcomes. With the increased funding implemented in the EdTech capability by the Ministry of Education, it needs to ensure the money spent in broadband is utilized properly to support learning objectives. The Ministry of Infrastructure's website indicates a program named the Broadband Atlas exists. According to the Germany Ministry of Infrastructure:

> "the Broadband Atlas is the central information medium of current broadband coverage in Germany. The broadband atlas is regularly updated and is available free of charge to all interested parties. Interactive maps are used to show which bandwidths and techniques are available for data transmission. Broadband availability is represented as a percentage of the households to be supplied by the staining of grid cells."

This information shows us that the broadband capabilities exist within the country. The Ministry of Education should help guide and ensure the capabilities are resourced broadly and fairly across the region within its education system. Subsequently educational institutions should ensure the broadband capabilities are layered properly to provide educational experiences that are personalized to meet streamlined learning goals and objectives.

The next factor that should be considered is the training needed for the systems' educators who will be implementing the EdTech programs and capabilities in the classroom. As we learned from this recent global pandemic, there is both a need now, and in the future, for remote learning. The ability to leverage EdTech within the asynchronous environment will be critical. A trained and certified educator in EdTech will not only make them comfortable with the user interface, but it will also allow the educational institutions to emplace qualified users that can help the capability reach its maximum potential. According to an article by (Isenson, N., 2018), as recently as 2018 " Germany is desperate for teachers. German schools are short by nearly 40,000 in total, the teachers' association says." The ability to just get teachers in the classroom is already challenging enough. Asking this already low number of overworked educators to incorporate a technology they are not trained in or comfortable with, seems like a recipe to not effectively and efficiently use the total capabilities of EdTech. The need for trained teachers within the EdTech arena is vital for this region of the globe.

The need to incorporate the right training for educators can be solved in many ways. First the larger vision must be shared with the educators, so they understand the future of education and why EdTech is so important. The ability to get teachers to "buy in" to the importance and capabilities of EdTech will go a long ways in ensuring it is implemented properly. The educational institutions must communicate the benefits of EdTech and provide its purpose for the future. Training must involve a variety of educational methods to include workshops, lectures, gamification, application implementation, job aides etc.… all aimed at increasing the educator's ability to use the technology. Afterall, if the educators are trained in EdTech's capabilities and techniques, they will be more inclined to be positive when implementing the technology within the classroom.

Conclusion

During this short essay we have looked at just a couple of the many factors that Germany must look at, when implementing effective and efficient EdTech within its educational institutions. Although there are many other factors, the two discussed during this short essay give a great foundation in understanding the importance of planning and implementing EdTech within Germany. If planned and implemented correctly, EdTech can help to enhance creativity, increase student learning engagements, improve digital literacy, improve grading procedures, enrich classroom experiences, and provide academic modernization for future German students. Implementing EdTech for any country is difficult. I am confident that Germany understands the need for and importance of EdTech. I am also confident that Germany will not only find a way to ensure EdTech's success, but it will eventually be a global model for many other countries to follow.

References

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