

UDC 37.02

https://doi.org/10.33619/2414-2948/61/52

TEACHING WITH TECHNOLOGY, LEARNING BY DESIGN

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ОБУЧЕНИЕ ТЕХНОЛОГИИ, ОБУЧЕНИЕ ДИЗАЙНУ

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Abstract. I decided to write this article after attending a three-week workshop on “Teaching Technology, learning by Design” organized by the Ministry of Education and the Ministry of Foreign Affairs of Malaysia. Basically, taking a look at the above topic throws up quite a number of conflicting and complex thoughts in the mind of the average teacher but considering what evolution has come into the teaching profession in recent, modern times, it is only expedient to look deeply into the subject. Technology as it were, does not literarily suggest the mere use of a Computer or a certain computer program just for the benefit of using a modern, pedagogical teaching method but a goal-driven, well-measured ideology to achieve specific results that go far beyond the four walls of the classroom. The concept of Teaching with Technology Learning by Design is a well-defined idea meant to dissect and treat real-life problems in the classroom and offer possible solutions to such problems with the use of modern technology which creates a near-real life learning and development experience not only for the students involved but also the tutors.

Аннотация. Анализ в статье проведен после посещения трехнедельного семинара на тему «Технологии преподавания, обучение по дизайну», организованного Министерством образования и Министерством иностранных дел Малайзии. По сути, рассмотрение вышеупомянутой темы вызывает ряд противоречивых и сложных мыслей в сознании любого учителя, но, учитывая, что эволюция произошла в профессии учителя в последнее время, целесообразно только глубже изучить предмет. Технологии как бы не предполагают в буквальном смысле простое использование компьютера или определенной компьютерной программы только с целью использования современного педагогического метода обучения, но целенаправленную, хорошо продуманную идеологию для достижения конкретных результатов, выходящих далеко за рамки четырех стен классной комнаты. Концепция обучения с использованием технологий Learning by Design — это четко определенная идея, предназначенная для анализа и решения реальных проблем в классе и предложения возможных решений таких проблем с использованием современных технологий, которые создают практически реальное обучение и развитие. Опыт не только для учащихся, но и для преподавателей.

Keywords: technology, design, integration, real-life problems, transfer, experience.

Ключевые слова: технология, дизайн, интеграция, реальные проблемы, передача, опыт.

Technology in modern-day teaching

In the 21st century, the term “technology” is an important issue in many fields including education. This is because technology has become the knowledge transfer highway in most countries. Technology integration nowadays has gone through innovations and transformed our societies that has totally changed the way people think, work and live (2, p. 175-176).



Technology does not only define to mean the use of Computer as it might have been conceived by many, it is a method that explains the use of a methodology of practical teaching which the students could easily relate with based on their prior experiences and which provides them a platform of having a better grasp of real-life, practical issues in the classroom and helping them come up with possible solutions to such.

A whole lot of tutors or teachers who were not Computer savvy tend to be concerned about their inability to maneuver their way around the use of computer and as a result tend to become discouraged or agitated. Though this does not necessarily or majorly base on a solid knowledge of computer but then it is important to state that the teacher and even the student needs to show a considerable amount of knowledge in the use of computer but not necessarily a particular computer program. While the knowledge of computer is quite a necessity, no one should be discouraged as a result of not having sufficient knowledge of it.

The modern day comes with quite a load of possibilities for us to explore and make meaningful strides in all spheres of human living and this is not left out even in the classroom where the personalities of individuals who would go on to impact the society are either formed or otherwise, so the use of appropriate technology in achieving this basic goal is absolutely non-negotiable. The modern day teaching as a matter of utmost importance must absorb the idea, concept and ideology into its operation both in context, content and material.

Technology in itself is solution based; meant to provide solution to certain human problems that existed so likewise, teaching must adopt this system in even more practical terms to solve certain real –life problems, provide a platform for the students where their experience and knowledge could be put to test in solving given, practical problems in the classroom, this does not only make teaching more interesting or practical-oriented but provides a solid base for the students to handle real-life issues and come up with suitable solution alternatives, this can also be useful in the decision-making process, ideology formation of such students.

Practical approach to teaching with technology

In order to have a thorough grasp of this concept, a practical class involving a group of Masters' Degree students, fifteen (15) of them was organized around the middle of the second semester, second year of their program. The idea was to create a Customer-feedback system within a production company that has just began its operation.

Firstly, the students need to identify the target customers and use every possible means to determine what their specific, different or general views are on the said product and if it actually meets their need or satisfaction. Secondly, the supply chain or task to determine how the product could get to the customers in good time when it is needed is of great importance and if the available mean(s) of transportation are good enough for this purpose. Thirdly, how to get the customers to contact the Sales and Marketing Department when and if the product is needed is another issue that needs to be looked into and a feedback system that treats the customers' inquiries and complaints.

Lastly, the need to create a solid platform that would ease the operation of the Department and help promote good sales of the said product. The class was divided into three different groups of five each with each tasked with the responsibility of proffering solution to a particular problem and the tutor rather than being the custodian of all the knowledge assumed the position of a participant in the project and the 'company's manager'; a team working and learning together to achieve a specific goal.

What we discovered during the course of this practical class was that each of the students in the class was quite willing to put in an effort and work together as a team in achieving a common goal. The class became more interesting and a sort of laboratory where different brilliant ideas and

solutions were produced, in the end the best of the ideas were pooled together and a solid platform to launch the product was created.

Some of the solutions they came up with included doing a feasibility study to determine the exact targets or customers, the age range, specific needs of the target and how to meet their satisfaction. Another point of reference was creating a good image of the company before proceeding to actually market the product just as it is known in the Marketing world that a company with a bad image could hardly sell any product, the group also succeeded in creating a mean of taking the customers complaints and a method to treat them effectively to the company's advantage and lastly, create a website that promotes the company and its product and provides a back-end where the customers could have interaction with the company.

All these were all well-defined and documented in the students, computers and they came up with the appropriate computer program that would suit their specific needs in achieving the set goal but above all, the students reported at the end of the practical class that it was one of the greatest experiences they have had in their student careers and were more equipped to face real-life challenges than ever before.

The basic concept of teaching with technology is to provide a platform for the students whereby they learn how to handle real-life, practical issues in the four walls of the class making use of modern tools and technologies available at their disposal to achieve such aim.

Learning by design

Though the application of modern tools or technology in the learning process and experience is quite expedient, the primary focal point of applying these tools, technology and materials should as a matter of far more relevant importance not be misplaced. The idea of making use of technology is to achieve a particular, specific purpose and that is Design.

Design in this sense is pooling every resources, tools, materials and related technological process together in the pedagogical teaching process in creating and presenting a practical, solution-oriented teaching methodology to the students which invariably forms their mind and personalities and prepares them for the real life beyond the four walls and comfort of the classroom.

The teacher in this case is the designer who spends an amount of time and effort to determine the particular problem, presents it to the class and gives them the opportunity to come up with various, possible solutions to such problem within a specified period of time.

The primary objective of the teacher is to encourage the students to direct their efforts, resources, tools and imagination towards achieving the onerous, specific task of proffering the best solution to such problem, by doing this, the students can reflect on their previous experiences and deploy such in getting at tackling the defined problem.

In other cases, it creates an environment where the student becomes a reflective learner and not just a passive member of a boring classroom or teaching methodology, it creates a different world for the students where they can bring their past experiences to bare on the problem at hand and open a gate of possibility of acquiring better knowledge and experience that are hand-on, useful and achieving a result that would become all meaningful to how they handle future problems and challenges outside the classroom.

The primary, specific goal here is designing or forming exactly what specific knowledge or experience the students are meant to acquire by specially designing the teaching or pedagogical method meant to achieve this specific learning experience and/ or process.

Conclusion

We can neither under-estimate nor over-estimate the importance of technology in modern-day

teaching however, the primary objective of the deployment of technology should be such that is meant to define solid knowledge and learning experience of both the teacher and students in the classroom.

When the design of pedagogical process is primarily meant to form specific knowledge base and achieve a mean of creating a learning experience for the students and equipping them properly to handle future problems outside the walls of the class, the application of appropriate technology; computer and any other related approach considered relevant finds a place of prominence to balance it all up adequately.

Generally, it becomes a learn-learn situation whereby the tutor who designs such a learning knowledge or experience acquires and gets to learn more and the students whose design is meant to form their learning experience gains greatly from such and are properly equipped to become more of reflective learners who would go on to gain valuable knowledge and experience applicable in arriving at possible solution in the future particularly in the real world.

Technology-based teaching and learning is more effective in compare to traditional classroom. This is because, using ICT tools and equipment will prepare an active learning environment that is more interesting and effective for both teachers and students.

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Работа поступила
в редакцию 18.11.2020 г.

Принята к публикации
22.11.2020 г.

Ссылка для цитирования:

Mammadova I. Teaching With Technology, Learning by Design // Бюллетень науки и практики. 2020. Т. 6. №12. С. 438-441. <https://doi.org/10.33619/2414-2948/61/52>

Cite as (APA):

Mammadova, I. (2020). Teaching With Technology, Learning by Design. *Bulletin of Science and Practice*, 6(12), 438-441. <https://doi.org/10.33619/2414-2948/61/52>