

соответствия выводов, как в программе P-CAD Library Executive, что ускоряет процесс создания компонента;

- возможность создания и использования 3D-моделей компонентов и печатного узла;

- единая среда разработки: Altium Designer не делится на подпрограммы типа P-CAD Schematic, P-CAD PCB, P-CAD Symbol Editor и т. д., что, незначительно, но упрощает его использование;

- возможность организовать сквозной цикл проектирования изделия без использования сторонних средств, т. е. в Altium Designer предусмотрен расширенный набор инструментов для оформления документации.

Субъективные минусы использования Altium Designer в рамках учебного процесса:

- громоздкие меню программы приводят к увеличению срока запоминания мест расположения инструментов и настроек;

- субъективно неудобный алгоритм навигации по рабочему полю при рисовании условных графических обозначений (требуются настройки);

- сложности в настройке и запоминании учащимися правил трассировки печатных плат по причине их многочисленности;

- отсутствие единой настройки единиц измерения и размеров сетки в целом для проекта заставляет проделывать множество манипуляций для настройки рабочей области чертежа;

- меню программы требуют использования широкоформатных дисплеев с высоким разрешением, что делает кнопки и надписи мелкими. По этой же причине возникают проблемы с демонстрацией работы Altium Designer на мультимедийном проекторе.

Указанные в статье недостатки Altium Designer не относятся к его функциональным возможностям, по которым он превосходит программы-аналоги. Тем не менее, его многофункциональность и перенасыщенность инструментами и настройками создают трудности при освоении учащимися, получающими среднее специальное образование.

THE APPLICATION OF “SITUATION CASE” METHOD IN THE STUDY PROCESS OF MEDIA TECHNOLOGIES

RENATA JARIMAVICIUTE-GUDAITIENE

*Kaunas University of Applied Sciences, Faculty of Technology,
Department of Media Technologies*

Summary. Business and study integration is a very important factor in ensuring the quality of education. In this work is discussed the applications of usage of situation case method in media technology study process. During this work time, the students have analyzed the factors, which has caused the emergence of the case, and have identified weaknesses and provided practical suggestions for problems solutions and for ensuring of products reliability.

A case analysis is an innovative training (learning) method, which gives possibility to create an attractive and pleasant learning environment for learners, where the theoretical and practical knowledge of the adult learner and his stock experience are closely linked as well as the new knowledge's, created on this basis, are tested here and now in simulated or even real practice.

The roots of a case analysis method can be found in the IV century before common era, in the historical Socrates maieutika (approach to the truth). Subsequently, in the XVII century this method was applied to the theologians, and on the end of the XIX century and on beginning of the XX century it was introduced by lawyers in the USA. Even more, this method became very popular in 1908, when Charles William Eliot – the president of Harvard University decided to apply this method to the processes of studies. Today, the case study method can be applied in almost all spheres of adult (self) education.

A case study is an innovative teaching (learning) method, which focuses on the skills to apply the various knowledge in a real situation, with due consideration "know who", "know why", "know how", "know when", when a learner's functions, activities, responsibility and professionalism becomes the most important objects of case study.

This method is useful due to the possibility to work with real situation, professional problems, to look to the problem objectively, to understand the different circumstances of their origin and cause. This method is an excellent opportunity to exchange ideas about decisions related to performance, because students not only diagnose the reasons, why in this case emerged a problem, but also they often seek to solve it themselves. Usually students work in the groups, that gives possibility appreciate the different sides of problem, to make exchange of the views and information, and better understand technological process and its peculiarity. This method gives a good opportunity to transform their negative experiences, wrong decisions and so on. In summary, the case study is an interactive teaching method, which supplements the knowledge acquired during the lectures and is focused on the creation of "in vivo" (in real life) situation in the classroom.

The situation case method usually is integrated into the study process of Management, but it can be successfully adapted into the study process of technology, in order to produce the professionals of the best qualification and to develop their ability to apply the technological theoretical knowledge in practice, and to adapt to the rapidly changing market conditions and the upcoming new technologies. These reasons encourage students to acquaint with the realities of today's organizations and with their potential development trends.

The main goal of this work was to evaluate the situation of Business Company, to make analysis of the produced products (security labels) and to propose new solutions of the labels creation, production and control usage for packaging security, using the situation case method.

The case study was performed by student's groups from Department of Media Technologies of Kaunas University of Applied Sciences (Kauno kolegija), Faculty of Technology. The company, which has been analyzed, works in the field of printing technologies. This company printed books, brochures, maps, atlases, posters, advertising catalogs, prospectuses and other printed advertising, postage and tax stamps,

documents, checks and other security papers, smart cards, albums, diaries, calendars and protective labels, which save different packaging from falsification.

In order to carry out the case study of the company, have been formulated these tasks for students:

1. To analyze the situation and identify the causes, which have led the emergence of the case.
2. To analyze the samples of production (labels) and identify its weaknesses.
3. To define the security level of the labels produced by company as well as the possibilities of product identification.
4. To propose possible technological solutions of the situation and to design labels examples.

Results and conclusion

In this work the students of media technologies studies have analyzed the situation of Business Company and determined the problems, which leads to the formation of the situation. For the problem solving was used analytical dimension. The problems were identified and have been as well:

- a) the company faced with falsification cases of expensive products,
- b) the useful implements of identification and security of packaging did not ensure it safety,
- c) it is necessary new creative design and technological solutions for labels production.

After analysis of labels examples, students have identified the main its weaknesses, as usage of very popular and simple elements for labels design and lack of new elements for authentication and security. It was established the need of a higher protection class.

Depending on the investigation results, the students group designed a new labels examples and suggested some new materials for the labels production.

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