

SZCZECHOWICZ, Bartosz, KRYCZKA, Małgorzata & ALEJZIAK, Wiesław. Performance of Empirical Research as a Method for Achieving Professional Students' Competence: a Case Study of Teaching Sales Skills to Future Employees of the Beauty Industry. *Journal of Education, Health and Sport*. 2023;13(4):21-36. eISSN 2391-8306. DOI <http://dx.doi.org/10.12775/JEHS.2023.13.04.002>
<https://apcz.umk.pl/JEHS/article/view/41863>
<https://zenodo.org/record/7642291>

The journal has had 40 points in Ministry of Education and Science of Poland parametric evaluation. Annex to the announcement of the Minister of Education and Science of December 21, 2021. No. 32343. Has a Journal's Unique Identifier: 201159. Scientific disciplines assigned: Physical Culture Sciences (Field of Medical sciences and health sciences); Health Sciences (Field of Medical Sciences and Health Sciences). Punkty Ministerialne z 2019 - aktualny rok 40 punktów. Załącznik do komunikatu Ministra Edukacji i Nauki z dnia 21 grudnia 2021 r. Lp. 32343. Posiada Unikatowy Identyfikator Czasopisma: 201159. Przynależność dyscypliny naukowej: Nauki o kulturze fizycznej (Dziedzina nauk medycznych i nauk o zdrowiu); Nauki o zdrowiu (Dziedzina nauk medycznych i nauk o zdrowiu).
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The authors declare that there is no conflict of interests regarding the publication of this paper.
Received: 13.01.2023. Revised: 26.01.2023. Accepted: 15.02.2023.

Performance of Empirical Research as a Method for Achieving Professional Students' Competence: a Case Study of Teaching Sales Skills to Future Employees of the Beauty Industry

Bartosz Szczechowicz  (corresponding author)

University of Physical Education in Kraków (Poland)
Faculty of Tourism and Leisure, Institute of Entrepreneurship and Management
Al. Jana Pawła II 78, 31-571 Kraków
bartosz.szczechowicz@awf.krakow.pl

Małgorzata Kryczka 

University of Physical Education in Kraków (Poland)
Faculty of Tourism and Leisure, Institute of Entrepreneurship and Management
Al. Jana Pawła II 78, 31-571 Kraków
malgorzata.kryczka@awf.krakow.pl

Wiesław Alejziak 

University of Physical Education in Kraków (Poland)
Faculty of Tourism and Leisure, Institute of Entrepreneurship and Management
Al. Jana Pawła II 78, 31-571 Kraków
wieslaw.alejziak@awf.krakow.pl

Declarations

No funding was received for conducting this study.

The authors have no relevant financial or non-financial interests to disclose.

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Abstract

Introduction and purpose. Didactic methods are evolving, among others, in the direction of engaging students in performance of empirical research gives rise to, in the first place, the students' active participation in the process of knowledge creation and improves their methodological expertise. This paper presents an outlook on the value of the students' participation in empirical research as a possibility for developing their professional competence.

Material and method. A case study concerning education of the future employees of the cosmetic industry via engagement of students majoring in “cosmetology” (as part of classes forming a part of the “Sales Techniques in Cosmetology” course taught at the University of Physical Education in Kraków) in the preparation and performance of empirical research was presented. In the first place, general information pertaining to the system of educating cosmetologists in Poland and at the university in question was discussed; this offered a background for illustrating the characteristics of the aforementioned subject, with a focus on the module of classes devoted to the preparation and performance of empirical research. In the second place, the process encompassing: (1) students’ engagement in the research preparation, (2) students’ engagement in the performance of research, (3) students’ engagement in the analysis and interpretation of research results and (4) actions taken to utilize the results of research for didactic purposes, was presented. **Results and conclusions.** Benefits resulting from the proposed formula of teaching the subject were listed, with simultaneous reference to the diversified level of engagement of the lecturer and the students in the performance of individual stages of the research process.

Keywords: studies; cosmetology; teaching methods; empirical research; sales techniques; case study.

Introduction

Diverse educational methods are used in the process of academic teaching. Given the forms of sharing knowledge, they may be divided into two basic categories. The first one is where the “expository” form is dominant: the students receive ready-made knowledge, which is communicated to them by the lecturer and this means that, in principle, the students do not have to perform of any specific, additional and independent work and the knowledge is internalized during classes when the content is communicated to them. An example of such form are lectures. The second category comprises methods dominated by the “inquiry-based” forms, where the student acquires knowledge and skills primarily thanks to the independently performed work, where going beyond the content communicated during the classes and own initiative play a major role. This form includes classes and tasks to be performed independently (essays, papers, etc.), as well as vocational internship or diploma seminars.

Irrespective of the determinants and divisions presented above, ongoing modernization and improvement of teaching methods plays a major role in modern academic didactics, which may utilize various innovative forms of teaching, as well as engagement of students in scientific research carried out by lecturers and assistants. This paper is devoted to the last issue; the authors of the paper wish to present - on a case study basis - a research and didactic experiment comprising programming, together with the students, and performance of research which constituted an important element of the program of one of the subjects taught at bachelor's studies in cosmetology at the University of Physical Education in Kraków.

In reference to the division into two basic forms of teaching presented above, the participation of students in scientific research as researchers is obviously positioned closer to the “inquiry-based” forms of education, yet it may also be treated as a separate group. In particular when - just as in the case analysed here - the research is carried out not as a separate didactic form (e.g. as part of the “Scientific Research Methodology” subject), but as an integral part of a subject, while its essence comprises procurement and subsequent analysis of specific research material. The authors wish to show that already at the level of bachelor's studies, the students’ engagement in the research carried out at universities or the organisation of special research projects with the intention of using the experiences resulting from it by the students and lecturers may form an innovative element in the traditional models of academic education.

Review of Literature

According to J. Ishiyama (2002), engaging students in the performance of research carried out at universities offers numerous benefits both to students and lecturers. To prove it, Ishiyama quotes the results of studies carried out at Truman State University (USA) in line with which the participation of students (bachelor’s studies) in research work carried out by the academic personnel - apart from the generally understood extension of knowledge - results in improvement of analytical and logical thinking skills and emergence of innovative scientific ideas (Ishiyama 2002, p. 380). At the same time, an important correlation between the results obtained during the studies and participation in research was manifested. It turned out that high development scores – greater than 2.75 were recorded among 47.3% (67/129) of first and second year students who did not take part in the research carried out at their *alma mater* faculty, while among students who participated in the research, this

percentage was as high as 74.1% (20/27). Given the absence of other factors differentiating these two groups and the fact that the difference between them was statistically significant (chi-square = 6.42 p = 0.01), it was concluded that even early participation in joint research is positively related to the quality of education and learning outcomes (ibidem, p. 383).

The opinions on positive impact of students' engagement in academic research are also confirmed by B. Nagda et al. (1998) and B. Alexander et al. (2000) who indicate five areas of benefits for the students participating in scientific research already at an early stage of academic education (cf. Ishiyama, 2002, p. 381). A more complete picture of determinants and advantages resulting from the involvement of students in research carried out at universities is presented by A. Jenkins et al. (2007, p. 61) who suggest that it has the following outcomes from the students' perspective:

- (1) students learn how research within their disciplines leads to knowledge creation;
- (2) students are introduced to current research in their disciplines;
- (3) students learn the methods used to carry out research in their disciplines;
- (4) students are motivated to learn through knowledge of and direct involvement in research;
- (5) students carry out research;
- (6) students participate in research conducted by their lecturers;
- (7) students learn and are assessed by methods resembling research procedures in their disciplines;
- (8) students learn how research is organized and funded;
- (9) students become members of a school or department and university culture within which learning, research and scholarship are integrated;
- (10) students' learning is supported by systems and structures at departmental, institutional and national level that facilitate staff scholarship and research in the pedagogy of the disciplines as well as disciplinary scholarship and research.

It is clear that there are multiple benefits of the students' engagement in scientific research, while one of the basic advantages is inoculation of scientific interests and cognitive passions, which has great significance in the process of teaching the future academic personnel.¹

In spite of predominant opinions on the advantages of involving the students in the research processes carried out at a university, there are also papers presenting a different standpoint on this issue, offering a rather critical outlook on the dominance of a unilateral standpoint in this respect. This is emphasized by, among others, P. Trowler and T. Wareham (2007), who indicated several important aspects of this issue:

first, much of the literature seems to be conceptually and theoretically weak neglecting to elaborate complex phenomena at different levels, such as discipline, university and department level. Second, much of the literature seems to take a one-sided, normative position which undermines the possibly negative aspects of research-teaching interactions, neglecting that the possibility to separate research and teaching functions might have benefits for both. Third, there is a tendency in the literature to use an unspecified terminology to describe the connections. Fourth, the literature lacks a development of causal theories, i.e., the modeling of precise mechanisms of influence, strength of influence and the influence of different factors on others appear to be under-explored (after: Elken & Wollscheid, 2016, p. 19).

The above-quoted authors notice that the conclusions resulting from some studies are ambivalent and that there is evidence suggesting that students both appreciate and fail to appreciate the staff's engagement in research activities. They also indicate the necessity of examining how policies on the institutional and national level may facilitate linking of the students' participation in research with the entire process of academic education. M. Simons and J. Elen (2007) point out to an interesting aspect of the relationship between research and education: they notice problems resulting from the peculiar ambivalence with respect to the interchangeable use of the *research-teaching nexus* and *education through research* concepts. In their opinion, misunderstandings in this

¹ Karol Steckiewicz, who received his PhD degree even before graduating (during the 6th year of medical study programme at the Gdańsk University of Medicine) for his doctoral thesis titled *Impact of Modification of Micro-particles and Nano-particles on Their Cytotoxic Activity and Anti-Bacterial Properties in In Vitro Studies* written under the supervision of Professor I. Inkielewicz-Stępniań and defended *cum laude* in March 2021, is quite an extreme case, yet offers a good example of how students can perform even serious scientific research during their studies. On-line, <https://gumed.edu.pl/63380.html> (21.03.2021).

area often result from two separate approaches to the role of research in academic education that are in operation: in the first, it is believed that research is a tool in the learning environment for the purpose of developing competence required by the knowledge society; in the second one, it is understood as the process of compilation and development of knowledge, while academic education is perceived through the prism of students' participation in research (Kowalczyk-Wałędziak, 2017, pp. 24-25).

The relationship between the academic education and research may adopt diverse forms. Students may learn from research, they may learn about research and learn through research. According to H. Dekker and S.W. Wolff (2016):

[l]earning from research means that students acquire knowledge of important theories and research in their fields of discipline. Learning about research means that students gain knowledge of methods and techniques of research in courses methods and techniques of research and/or in research labs. Learning through research means that students acquire knowledge of their discipline by doing research themselves (p. 2).

Reference books feature numerous papers describing the dependencies between the research and academic education, including several interesting models that explore them. There are also multiple terms and definitions which attempt to define the relationship between scientific (research) activities and academic didactics. R. Griffiths (2004) suggests that a distinction might be made between teaching which is predominantly:

- (1) *research-led*: where students learn about research findings, the curriculum content is dominated by staff research interests, and information transmission is the main teaching mode;
- (2) *research-oriented*: where students learn about research processes, the curriculum emphasizes as much the processes by which knowledge is produced as learning knowledge that has been achieved, and staff try to engender a research ethos through their teaching;
- (3) *research-based*: where students learn as researchers, the curriculum is largely designed around inquiry-based activities, and the division of roles between teacher and student is minimized.

This concept was a basis for creation of the best known and definitely the most quoted model, prepared by M. Healey (2005). It has the form of a multidimensional matrix that allows for differentiating four various types of relations occurring between research and education. These dependencies may be conceptualized according to two axes, where the first one refers to the division into students actively participating in research and students who are only the recipients of results procured through such research, while the second axis refers to the direction of research with respect to the content or the sole process of research. When analyzing the presented model and trying to refer it to other concepts (e.g. Healey & Jenkins, 2006; Elken & Wollscheid, 2016) and current models of academic education, M. Kowalczyk-Wałędziak (2017, p. 29) concluded that the teaching programs described in the M. Healey model and the nature of activities expected from students may be characterized in the following mode:

- (1) *research-led* – students learn the results of research carried out in the discipline of their studies; curricula are aligned to the profile of research carried out at a given faculty;
- (2) *research-oriented* – students acquire knowledge about the elements of a research process; in the curricula, attention is paid not only to the sharing of knowledge, but also the modes of arriving at it;
- (3) *research-based* – the curricula are constructed around the activities that allow for and foster cognitive and research independence, self-reflection, self-awareness and auto-creation in students;
- (4) *research-tutored* – the activities of students rely on the analysis and synthesis of research results and focus on the preparation of written papers, diploma theses and numerous discussions with academic teachers, primarily during seminars.

Engagement of students in research already at the level of bachelor's studies has developed in particular at American universities, where “undergraduate research” is an important element of academic education. According to M.K. Hensley (2015), “undergraduate research is engaged learning where students contribute to the process of knowledge creation, often presenting their work at student conferences or publishing in an undergraduate research journal” (p. 720).

An interesting example of combining (or even relying) academic education on research is the curriculum pursued as part of bachelor's studies at Illinois University in Urbana-Champaign. The students start as the consumers of knowledge (*students as consumers*) and in eight steps transition to the producers of knowledge (*students as producers*). The entire curriculum forms an 8-stage continuum of students' engagement in the process of

knowledge acquisition and creation, which determines the role of research as part of the entire process of education (Dekker & Wolff, 2016, p. 2):

- (1) Step 1: students are provided with an overview of the basic facts, terms, and ideas related to the discipline.
- (2) Step 2: Students learn about research findings in the (sub)field through lectures and readings dedicated to current research.
- (3) Step 3: Students discuss and critique research findings and approaches in the discipline or (sub)field; assignments include literature reviews or summaries.
- (4) Step 4: Students learn some research methodologies, engage in limited applications of those approaches in course assignments, such as statistical analyses.
- (5) Step 5: Students learn in a course dedicated to the research methodologies, engage in extensive applications of a variety of approaches.
- (6) Step 6: Students engage in faculty designed and led original (to the student) research such as replications of existing studies.
- (7) Step 7: Students engage in faculty designed and led original research such as research related to faculty projects and/or conducted in faculty labs.
- (8) Step 8: Students engage in student designed and led original (to the discipline) research such as a senior thesis or capstone project (Office of Undergraduate Research, 2015: 3).

Joint participation of lecturers and students in research which is the foundation of searching for the truth, discovery of scientific rules, creation of theories, arriving at knowledge and its sharing is the optimum model of academic education. According to A. Sajdak (2013), it is manifested in the descriptions "...of functions and professional tasks of an academic teacher, in the ongoing promotion of the master-student relationship as the basic model of education or eventually in the layout of criteria of assessment of a university employee and conditions of his/ her professional promotion" (p. 109).

The relations between research and academic didactics is a frequently addressed subject of studies and discussions, while it is analyzed most frequently from the perspective of academic teachers (Tight, 2016; Elken & Wollscheid, 2016). This also refers to Poland, where the issue of participation in academic research at an early stage of academic career is examined primarily as part of a relationship between research and didactic activities of academic teachers and thus mostly in reference to junior academics, and not students (Majewski, 2010; Kowalczyk-Walędziak, 2017). Thanks to the direct participation in research (as researchers and not respondents), the students independently acquire knowledge that is vital for their education - which is particularly important for such areas of knowledge that have not yet been sufficiently studied and that have certain gaps or are characterized by high variability of the studied reality (which requires cyclical research). Such situation, to a great degree, refers to the market of cosmetic (beauty) services, which should be taken into account in the education of cosmetologists - this issue forms a part of the case study described in a further part of the paper.

Purpose

The purpose of this paper is to identify and assess the possibility of developing vocational competence of the students by engaging them - as part of classes - in the preparation and performance of empirical research. Involving the students in the research process has, in this case, an instrumental character, being a means to accomplish strictly defined professional competence, understood in the categories of knowledge and skills useful for the performance of professional activities by a university graduate.

Implementation of the idea presented above seems justified in two circumstances: in the first place, when the teaching of a given subject requires reference to data and information which is not nowadays generally accessible or is not up-to-date; secondly, when involving students in the preparation and performance of research is accompanied by other, additional benefits - from the point of view of the didactic process. They may, for example, be related to the construction of a research tool, which requires an in-depth reflection from the students about the pool of information desired by them; in such case, a student becomes not only a passive recipient of the content presented to him/ her by the lecturer, but its active producer, influencing acquisition of such content. The above-listed benefits may also be a result of the students' participation in field research, which allows them to make independent observations of phenomena interesting to them and related to the subject curriculum - and this, in turn, gives them hope for better acquisition of the results of such observations, due to which it is justified from the perspective of efficiency of the didactic process.

Naturally, the students' engagement in preparing and performing empirical research also generates certain costs (not necessarily financial). Among them, there is the necessity of assigning time, during the didactic classes, required for expounding to the students the premises pertaining to the research and equipping them with the knowledge necessary for research performance, related to the core of the selected research method and the process of its implementation. Bearing in mind the fact that in the approach proposed here, research is an instrument for accomplishing purposes other than the students' proficiency in academic work, the lecturer - when selecting the mode of research - should not only account for its substantive values (utility from the point of view of the stipulated purposes), but also the ease in making the students acquainted with it, and relative simplicity of its application.

Materials and Methods

The presented purpose was accomplished by referring to the experiences resulting from the formula of classes offered as part of the "Sales Techniques in Cosmetology" course at the University of Physical Education in Kraków (Poland) at the Faculty of Rehabilitation as part of the curriculum prepared for the "cosmetology" field of study. In relation to the above, this paper has the character of a case study, which describes the example of development of professional competence of the future employees of the beauty industry through the engagement of students - as part of didactic classes - in preparation and performance of empirical research. As part of presentation of this case study, general information pertaining to the system of teaching cosmetologists in Poland was set out, along with education offered at the "cosmetology" major at the University of Physical Education in Kraków, using them as a backdrop for the characteristics of the "Sales Techniques in Cosmetology" course, with a focus on the module of classes pertaining to the preparation and performance of empirical research. In the second place, the work organization process as part of the classes forming a part of the aforementioned course was described, encompassing the students' engagement in the preparation and performance of research and analysis and interpretation of results procured in this mode, as well as utilization of the research results for didactic purposes.

In Poland, in line with the applicable law, cosmetic (beauty) services can be provided by: a cosmetologist, a beautician and representatives of associated professions, e.g. make-up artists, manicurists, pedicurists, solarium employees, cosmetic service technicians, stylists (*Regulation of the Minister of Labor...*). The right to perform work in the cosmetic industry can be acquired after completion - depending on the selected profession - of bachelor's or master's studies, a vocational school, a post-secondary school or postgraduate studies or diverse types of courses. The condition for receiving a cosmetologist's title is completion of higher studies in the field of cosmetology. They are carried out in two cycles, as bachelor's studies (6 semesters) and as master's studies (4 semesters). At the first cycle studies, the number of hours should not be lower than 2,200, and at least 60% of them should be seminars, recitation classes, laboratory classes or practical classes. At the second cycle studies, the number of hours should amount to 1,200 as a minimum; vocational internship is also mandatory (*Rules and Regulations...*). The terms and the mode of study organization is regulated by the Ministry of Education and Science (*Regulation of the Minister of National Education...*), while the profile of studies, the learning outcomes and areas of teaching are adopted by the senate of individual universities. The requirements pertaining to the academic personnel are set out in relevant ministerial regulations (*Regulation of the Minister of Science and Higher Education...*). Depending on the type of a school or university, education may be paid or free, in the form of full-time or part-time studies. In Poland, "cosmetology" is a relatively new field of study, entered in the list of higher education several years ago (Arct, 2021). At the present moment, this field of study is offered at approx. 60 universities, both state-owned and private.

At the University of Physical Education in Kraków, "cosmetology" studies are offered at the Faculty of Rehabilitation, at the Institute of Applied Sciences - both on the level of bachelor's and master's studies (WWW 1). In both cases, the expected learning outcomes within the area of knowledge, skills and social competence - on account of the fact that cosmetology is an interdisciplinary area of knowledge - belong to the realm of medical sciences, health sciences and physical culture sciences (cf. *Learning outcomes after completion of first cycle studies...*; *Learning outcomes after completion of second cycle studies...*). In relation to this, the plan of first cycle studies and second cycle studies includes basic and core subjects which prepare the students comprehensively for the practice of the profession of cosmetologists. As part of the first cycle studies, two specializations are available: "Wellness & SPA with Management" and "Holistic Body Care" (WWW 4); on the other hand, as part of second cycle studies, a number of subjects are offered which the students can choose as their elective (WWW 3).

The subject of interest to us, titled “Sales Techniques in Cosmetology”, is offered as part of first cycle studies (bachelor’s studies) at the third study year, during the sixth semester and it comprises 14 hours of lectures and 28 hours of classes. Its purpose is: “Acquisition, by the students, of knowledge about sales techniques used in the operation of entities offering cosmetic goods and services, as well as development of basic skills for applying such techniques in practice” (*Course Description...*). Elaboration of this purpose was presented as six learning outcomes pertaining to the knowledge, skills and social competence. Given the vocational nature of the studies, a clear predominance in the number of classes as compared to the number of lectures and predominance of the stipulated learning outcomes pertaining to skills (as compared to the outcomes referring to the knowledge and social competence), the didactic process related to the subject in question can be considered strongly focused on the preparation of the graduates for the use of the sales techniques in the activities related to the distribution of cosmetic goods and services. This is also confirmed in the curriculum content of the subject.

To supplement the overall picture of the mode of offering this subject, it should be indicated that the basic terms for receiving a credit by the students included: individual participation in the performance of research with the use of the mystery shopping technique and submission of a completed survey form; preparation and presentation of a selected cosmetic product in interaction with a client (the task was carried out in 2-person teams, where one student acted as the seller and the other as the client); written credits verifying the pool of knowledge (*ibidem*). Even though every one of the above components of classes was carried out on the basis of the previously prepared materials, only the module pertaining to the preparation and performance of the research with the use of the mystery shopping method, devoted to the servicing of clients on the cosmetic market, will be discussed in detail in this paper.²

The purpose of the module of classes was to assess the standards of client servicing at the broadly understood cosmetic market. Given the performance of the research as part of the didactic process, the application of the mystery shopper method was limited to the identification of the client servicing standards in pre-sale contacts, i.e. starting from the establishment of contact between the client and the seller until the moment when the client decides to purchase a product offered to him/ her by the seller or resigns from such purchase. In other words, in the final outcome, the client did not make a purchase and did not assess - for example - the mode of performance of a cosmetic treatment which was an integral component of a broadly understood cosmetic service. Even though the subjective and the objective structure of the market is quite complex, for the purpose of the classes it was limited to the market of cosmetics (offered by beauty supply stores and pharmacies) and the market of cosmetic services (offered by beauty parlors).

The justification for taking up such research was - in the first place - lack of sources that would discuss the aforementioned issues, showing practices in the area of sale servicing of clients at the discussed market. However, it quickly turned out that the students approached the proposal of joint preparation and performance of research with great interest, with the aim of independently assessing the reality of the sales qualifications of personnel servicing clients in the researched entities and subsequently compiling data related to it. This interest was intensified by the students’ initial intuition about the differences within the scope of standards of client servicing in various types of entities offering cosmetics and cosmetic services mentioned above. In this mode, the project planned as an important “didactic” element also acquired a scientific dimension. It was meant to expand the pool of knowledge on the servicing of clients at the cosmetic market and simultaneously to verify the research hypothesis formulated above.

The general process of preparing and performing the research specified above (implemented as part of several didactic units and own work of students) was made in a mode presented in Fig. No. 1. Activities related to the performance of individual stages of this process were presented in the subsequent sections of this paper.



Figure 1. Work organization process as part of classes in the “Sales Techniques in Cosmetology” course

² All the detailed information pertaining to the performance of studies with the use of the mystery shopping method provided here and in a further part of the paper as part of the “Sales Techniques in Cosmetology” subject was prepared on the basis of unpublished materials for the classes.

The case study presented in this paper refers, in particular, to the preparation and performance of research with the use of the mystery shopping method during the first edition of the “Sales Techniques in Cosmetology” course, i.e. in the 2018/2019 academic year. 149 students attended the course in that year, including 100 as full-time students (divided into three groups) and 49 at part-time students (divided into two groups).

Many of the students attending the classes had prior professional experiences which resulted from completion of internship in a beauty parlor which was mandatory for the students. Some students also had professional experience related to the work in the beauty industry or in other service or commercial industries at positions related to customer servicing. It must be emphasized that prior professional experiences significantly facilitated performance of the research process described here.

Results

Students’ Engagement in Research Preparation

At Stage I, activities presented synthetically in Table No. 1 were performed.

Table 1. Activities carried out at stage I “Research Preparation”

No.	Name of activity	Description of activity
I.1	Presentation of research method	The students were made familiar with the <i>mystery shopper</i> method; its essence was presented, along with typical applications, procedure of performance and ethical recommendations related to it, required features of a mystery shopper and the extent of necessary preparation. Examples of applying this method in practice were also presented.
I.2	Formulation of Research Purposes	The purpose of research performance was formulated for the purpose of studies as identification of standards of client servicing at the cosmetic market, accounting for sale of cosmetics (beauty supply stores, pharmacies) and cosmetic services (via beauty parlors) with the use of three diverse communication channels (visit at the place, telephone contact, on-line contact).
I.3	Adoption of Premises Pertaining to Division of Work	The following were assigned to every student: type of product, type of place where it is sold, communication channel with a given entity.
I.4	Preparation of Research Tool	The structure of the survey form was initially determined and a proposal of specific questions was prepared (accounting for types of products, points of sale and communication channels). In consequence, one final version of the survey form was prepared.
I.5	Preparation of Principles for Research Performance	The principles of practical performance of the research by the students were discussed in detail.

Before certain details pertaining to the content of the table are provided, it should be stressed that the stage of research preparation was of vital importance for accomplishing the planned didactic and scientific results. The entire component of classes related to them relied on an assumption that procuring information about the sales competence of personnel servicing the points of sale of cosmetics and cosmetic services required selection of a proper method of research and application of a procedure related to it. The final result in the form of research results predominantly depended on the degree to which the students learnt and understood the essence of the *mystery shopping* method and how reliably they participated in the preparation of the research tool and subsequently in the performance of the field research. At the same time, it should be emphasized that:

- the entire research procedure, even though carried out under the supervision of the teacher, was implemented “live” (in principle, no details pertaining to the research were programmed in advance, all of them resulted from the decisions made in group, during the classes);
- all the activities discussed here were implemented in a very large group (almost 150 students) and due to this, they required excellent work organisation;
- these activities had to be carried out in observance of the schedule of classes and at the same time dynamically: the research project described here was an important, but not the only, element of the “Sales Techniques in Cosmetology” course.

Insofar as activity No. I.1 requires no additional commentary, then in reference to activity No. I.2 it must be noted that apart from the originally assumed differentiation of research on account of the offered product (cosmetics versus cosmetic services) and - for cosmetics - differentiation with respect to the place of their sale (beauty supply store, pharmacies), as part of the discussion held during the classes, a decision was also made to account for the differentiation of channels which the clients use to communicate with the sellers. In this manner, the personal channel was distinguished (visit at the point of sale), the telephone channel and the on-line channel - encompassing various options of electronic contact, e.g. e-mail, contact via the chat service available at the profile of the point of sale in social media, contact via the chat service available on the point of sale's website, etc. These three categories were the independent variables, which offered a basis for the formulated research hypotheses - in the case of which the generally expressed dependent variable was the "competence of sales personnel."

Activity No. I.3 was related to adopting the mode of work organisation, which would allow for the meeting of research assumptions as part of the entire group of students, and simultaneously would reasonably encumber individual persons with tasks. Therefore, it was assumed that every student would perform the study in the field by contacting one point of sale through one channel of communication. The assignment of individual persons to types of premises and communication channels was carried out immediately. When choosing the points of sale, attention was paid to retaining a diversified structure of these entities (beauty supply stores, pharmacies, beauty parlors) and products (cosmetics, cosmetic services), as well as diversified forms of contact with such entities (personal visits, telephone contacts, on-line contacts). Due to the fact that the research was carried out as part of specific didactic classes, a random choice of premises for the research was not possible; the students acting as the mystery shoppers could pay a visit or establish contact with any facility, at the same time being guided by the pragmatic approach (convenient access). To verify whether the visits/ contacts made by the mystery shoppers were carried out correctly, the students were asked to enter the name and the address of the entity to which the research referred in the survey form. At the same time, this enabled verification whether the visits/ contacts did not take place in the same entities which, in turn, was significant in the context of interpretation of the research results.

As part of activity No. I.4 - during classes held in individual groups of students - the structure of the survey form was initially agreed. Seven categories were distinguished corresponding to various elements comprising the broadly understood process of pre-sale customer servicing. These categories were defined in the following manner: (A) establishing contact; (B) customer servicing; (C) knowledge about the product; (D) sales techniques; (E) appearance of the point of sale and personnel; (F) finalization of contact; (G) general impressions from observations and other issues. Next, also as part of the classes, the students in every group were divided into seven teams; each of the teams had the task of preparing a proposal of specific questions for a single category assigned to them. After completing this task, every team presented the proposals of questions; they were discussed and during the discussion, some were rejected while modifications were suggested to others; furthermore, proposals of completely new questions were submitted. In this manner, in each of five groups, a set of questions was generated on the basis of which the lecturer prepared one survey form which was subsequently used in the research process.

The survey form contained: title, purpose and basic information about the research, instruction on giving answers (foreseen for students acting as the mystery shoppers), as well as a field for entering data identifying a given entity and - in the basic part - 152 questions. The questions were grouped into seven aforementioned categories (A-E), while for some of them, there was a clear distinction between general questions - to which responses were given by all mystery shoppers - and detailed questions - which were answered only by these mystery shoppers to whom such questions clearly referred. For example, questions were formulated to which responses were only given by clients who carried out research pertaining to cosmetics, and not services (and vice versa); questions were separated for clients who performed the research by means of a personal visit at the point of sale and not telephone or on-line contact, etc. For every question, an adequate formula of an answer was adopted (choice of "yes" or "no" answers; choice of responses in the scale from 1 to 5; entering a relevant numerical value). Apart from the above, a place was provided next to every question for entering additional commentary - if a student carrying out the research considered it necessary. Additional remarks, going beyond the comments to specific question, could also have been added at the end of the survey form.

As part of activity I.5, principles of practical performance of the research by students were discussed in detail. At the same time, attention was attracted to the necessity of individual preparation of every student for the research through acquisition of knowledge about a specific product (to which contact with the point of sale would be

devoted), reflection on the mode of asking individual questions, thoughts pertaining to the probable course of the conversation, etc., as well as the manner of completing the survey.

Students' Engagement in Research Performance

At Stage II, activities presented synthetically in Table No. 2 were performed.

Table 2. Activities carried out at stage II "Research Performance"

No.	Name of activity	Description of activity
II.1	Selection of a specific point of sale	Every student independently chose a point of sale fulfilling the criteria assigned to it (in line with the premises adopted as part of activity No. I.3).
II.2	Performance of research at a point of sale	Every student established contact with a selected point of sale (in line with the premises adopted as part of activity No. I.3) and carried out the mystery shopper's visit.
II.3	Completion of Survey Form	Directly after the visit, every student completed the survey form.

In line with the clarifications provided above, as part of activity No. II.1, every student independently selected a point of sale meeting the criteria adopted at stage I., i.e. pertaining to the type of product (cosmetics, cosmetic services) and in case of cosmetics - type of facility (beauty supply store, pharmacy). Next, as part of activity No. II.2, the students carried out the research in a selected facility via (once again: in compliance with the prior determinations) personal visit, establishing telephone or on-line contact. Immediately after it, activity II.3 was performed, related to the completion of the survey form based on the determinations and observations made during the contact.

The research was carried out in March 2019 and 125 completed survey forms were received.³ Their structure, from the point of view of the product and the place of its sale and the form of contact with the facility, is presented in Table No. 3.

Table 3. Number of contacts made by the students with companies operating at the cosmetic market in Kraków and the neighborhood according to the mode of research performance and type of product

Mode of research performance (form of contact with the entity)	Type of cosmetic product			In total:
	COSMETICS		COSMETIC SERVICES	
	Place of sale			
	Beauty supply store	Pharmacy	Beauty parlor	
Personal visit	19	12	30	61
Telephone contact	6	8	28	42
On-line contact	3	0	19	22
In total:	28	20	77	125

In reference to the fact that the mystery shoppers' visits/contacts could theoretically refer to the same points of sale of cosmetics or places of provision of cosmetic services, it should be clarified that in practice this did not happen. In the case of beauty parlors, there were only five repetitions of this type and in the case of beauty supply stores, there were only two repetitions, whereas in the case of pharmacies, there were no repetitions. At the stage of analysis of research results, a decision was made to leave these few repetitions on account of the fact that the mystery shoppers evaluated the same facility differently and recorded diverse interesting observations in their survey forms.

Engagement of Students in Analysis and Interpretation of Research Results

³ The difference between the number of students who were enrolled for the course (149) and the number of contacts with enterprises made by them (125) results from the fact that some students (24) supplied forms with certain shortcomings or errors or did not supply them within the stipulated deadline. Given the fact that the process of research performance had to be continued without delays, the analysis of results as part of the classes was carried out for 125 survey forms.

The stage of analysis and interpretation of study results was carried out in two rounds. The first one had an initial character and was carried out as part of didactic classes with the participation of the students. The second one had a detailed character and was carried out outside of didactic classes without the participation of the students.

The initial analysis and interpretation of research results was made as part of the didactic classes and encompassed a set of activities which are synthetically presented in Table No. 4.

Table 4. Activities carried out by the students at stage III “Analysis and Interpretation of Research Results”

No.	Name of activity	Description of activity
III.1	Individual presentation of results	During the classes the students presented - for each of seven categories of questions - results of research pertaining to contacts: telephone, on-line and personal.
III.2	Detailed Formulation of Conclusions	For every batch of questions, a conclusion(s) from performance of research was formulated and written down, indicating specific features of servicing with respect to a given form of contact.
III.3	Formulation of General Conclusions	Joint formulation of general conclusions from performance of research pertaining to the sellers’ knowledge about the offered cosmetic products and standards of sale servicing of clients at the cosmetic market.
III.4	Submission of Remarks	Submission of remarks pertaining to the mode of research performance and construction of the survey form.

As part of activity No. III.1 the students - during the classes - presented the research results individually, along with other observations and impressions that were the result of the research tasks performed by them. In this respect, a certain sequence was introduced, in line with which the results pertaining to telephone contacts were presented first, then on-line contacts and eventually personal contacts. With respect to each of these forms of contacts, the results were discussed in line with the survey form structure, i.e. analyzing each of the categories of questions distinguished there (A-E). The students not only shared their specific responses to individual questions, but also personal experiences resulting from the established contacts and impressions that accompanied them in a situation when they acted as conscious clients, prepared for such role - asking questions, initiating and maintaining dialogue with the seller, observing the seller's interest in the client, attention devoted to the client, body language, etc.

Based on these specific indications, in activity No. III.2, at least one conclusion was formulated for every category of questions (A-E), which indicated specific features of client servicing via a specific form of contact. It must be noted that such indications of the students resulted from individual observations of the mystery shoppers, discussed at the forum of individual groups. In this sense, these conclusions - from the point of view of the research process - did not have a binding nature, but they were more intuitive, supported by personal experiences, which may be treated as justified hypotheses, the final settlement of which would be possible in the course of a detailed analysis of all the received results or future studies. The determinations above had their continuation in activity No. III.3, where general conclusions from the performance of research were formulated, pertaining to the sellers’ knowledge about the offered cosmetic products and standards of post-sale servicing of clients at the cosmetic market. For example, the students unanimously put forward a thesis that persons servicing the clients in beauty parlors offered a relatively narrow range of products (treatments and cosmetics used for their performance) with which they were acquainted in detail, while the sale of cosmetics for pharmacies and beauty supply stores is one of many sources of revenues - frequently not the dominant one. In relation to this, questions about the ingredients and properties of cosmetics formulated by the clients were met with detailed clarifications on the part of employees of beauty parlors, while in beauty supply stores (and sometimes in pharmacies), such situations forced the employees to consult the information leaflets of specific cosmetics.

The last element of this stage of the procedure was activity No. III.4 as part of which the remarks pertaining to the survey form were compiled, which indicated the necessity of its modification with respect to the future use and which followed from experiences from the current edition of studies.

Bearing in mind the limitations in time that governed the performance of the presented research - given the amount of time that could be devoted to the activities related to them as part of didactic classes and own activities of students - performance of a detailed analysis and interpretation of results with the participation of the students has turned out to be impossible. In relation to the above, such analysis and interpretation was carried

out by the lecturer with the assistance of a PhD student who taught classes related to the mandatory didactic practice to the “Cosmetology” students. At the same time, it is worth adding that also this element of the research had didactic values, even though of a different kind than the ones described above. A detailed analysis and interpretation of research results comprise actions which are synthetically presented in Table No. 5.

Table 5. Activities carried out by a PhD student at stage III “Analysis and Interpretation of Research Results”

No.	Name of activity	Description of activity
IV.1	Preparation of Database	Data from completely and correctly completed survey forms were digitized, and thus a database in the form of a spreadsheet has been prepared.
IV.2	Analysis of Data	Using the adequate measures of descriptive statistics (taking into account the specific nature of the scale of measurement applied for individual questions), the analysis of the compiled data was made for the entire set of data and the selected sub-sets.
IV.3	Interpretation of Data	The data subjected to analysis from the entire set of data and the selected sub-sets were interpreted, with simultaneous interpretation of research hypotheses formulated beforehand.
IV.4	Formulation of Conclusions	Generalizing conclusions were formulated from the performed research.

The starting point for the performance of a detailed analysis of data was activity No. IV.1 related to the evaluation of completeness and correctness of the collected survey forms and preparation - on their basis - of a database. A database was generated in the form of a spreadsheet, with verses corresponding to individual survey forms and columns corresponding to the questions contained in the survey form. The responses were coded in a mode adequate to the nature of every question. Activity No. IV.2 was related to the analysis of data contained in the database, with the use of relevant measures of descriptive statistics. Sometimes, other remarks were also referenced in the analysis, resulting from additional comments provided by the students in relevant fields of the survey form. The analysis of data was carried out in the layout of the entire set of data and selected sub-sets. Here, the forms of contacts between the clients and the entities (personal visit, telephone contact, on-line contact) were distinguished, as well as the location of entities (Kraków, vicinity of Kraków) and the type of facilities (beauty parlors, beauty supply stores, pharmacies). In consequence, as part of activity No. IV.3, the received data were interpreted and general conclusions were formulated in activity No. IV.4.⁴

Utilization of Research Results for Didactic Purposes

The results of the research which are the outcome of the didactic and scientific project described above - along with experiences resulting from its performance - were utilized to an extensive degree. This was made both in the purely didactic aspect, as well as the scientific one. The above is expressed in statements below:

- (1) The project delivered abundant necessary information which was used - in real time - during the classes as part of the “Sales Techniques in Cosmetology” course in the 2018/2019 academic year. With respect to this issue, in line with the premises, the standards of client servicing at the broadly understood cosmetic market were analyzed, thanks to which the learning outcomes assumed as part of the course were accomplished to a higher degree.
- (2) The project delivered information as well as experiences, which were used - in the subsequent years - during the classes offered as part of the aforementioned course. Thanks to this, materials from the previously performed research were already at the teacher's disposal.
- (3) The project offered valuable data and information on the basis of which the academic paper was prepared (Mależyna, Szczechowicz, 2021), which will provide important material for the classes forming a part of the aforementioned course.

The project also offered experiences and benefits which are less tangible. First of all, the students who acted as mystery shoppers approached the performance of tasks related to the research in a very conscientious manner. It was almost obvious for them (which undoubtedly results from the assessment of the teacher, and thus has the nature of participant observation) that if there are no materials which could be referred to with respect to the issue of learning about the standards of client servicing in entities offering cosmetics and cosmetic services, such data must be generated independently. Following this, the students became willingly engaged in the preparation

⁴ This study focuses on the presentation of the research procedure, without presenting the results of the discussed research. These results can be found in the paper: (Mależyna & Szczechowicz, 2021).

and performance of research, as well as presentation and discussion of results. In this sense the presented project, independently from delivering specific professional knowledge, has also turned out to be a valuable instrument developing the scientific and research competence of the students. It seems even more important due to the fact that the students attended the class during the last semester of first cycle studies (bachelor's studies) and they could subsequently apply for admission to second cycle studies (master's studies) which had a general academic profile.

Discussion

The presented case study illustrates the course and the results of a didactic experiment as part of which the students were engaged in preparing and performing empirical research. Given the high level of such engagement, the experiment forms a part of the general idea of "inquiry-based" methods of education and on account of the role of empirical research in the process of formation of students' competence, it has the features of the *education through research* approach distinguished by M. Simons and J. Elen (2007). Bearing in mind that the entire research process was prepared with a very significant participation of students (they were included in all the stages of the process: starting from the specification of research hypotheses, through the construction of the survey form and performance of field research, up to the presentation and discussion of results and formulation of conclusions), the presented approach can be defined in the categories of *learning through researching* defined by H. Dekker and S.W. Wolff (2016).

In the presented case, the empirical research was a means to accomplishing vocationally oriented learning outcomes by the students, related to the development of competence in the area of sale of cosmetic goods and services. In spite of it, including a research project in the curriculum of core subjects naturally showed the students the necessity and possibility of learning the reality by performance of empirical research. In this sense, using the opportunity, the students started to consciously perceive certain areas of absence of knowledge (related to the field of study of interest to them), as well as reflect on them critically and search for paths leading to the procurement of the necessary information. In effect, the presented approach not only shaped the professional competence of students, but also the general (methodological) or even the social competence. The latter is related to the preparation of the university graduates for a critical assessment of the reality surrounding them, in combination with the capacity of analytical and well-ordered ("methodical") solving of the encountered problems.

In a more detailed mode, the benefits that result from the performance of the presented research module as part of the "Sales Techniques in Cosmetology" course can be assigned to three groups, depending on the beneficiary. In the first place, there are benefits for the students. Among them (apart from the ones indicated in the works of, e.g., A. Jenkins, R. Breen and R. Lindsay (2007)), it is possible to indicate procurement of a pool of subjective knowledge, which has original character and is simultaneously useful in professional practice. Accomplishing this effect was fostered by the specific nature of the studied market to which few theoretical studies have been devoted so far (in particular with respect to the issue of provision of cosmetic services) and at the same time the specific nature of the subject - as the research pertaining to the standards in the area of sale techniques was carried out relatively rarely. The attractiveness of classes, resulting from incorporation of a program of research tasks into them, which for students had a non-standard character and at the same time introduced certain dynamics to the classes, can also be analyzed in terms of benefits for students. The benefits from performance of the project may also be analyzed from the perspective of the lecturer who, as part of didactic classes, may creatively implement research premises, at the same time developing own understanding of issues comprising the program content of the subject. The beneficiary of the project is also - in a broad context - the society, due to the fact that the properly planned research, performed in the course of classes, can noticeably enhance subject-related knowledge if its results are popularized.

More in-depth observations with respect to the level of the students' engagement in the performance of the research module as part of the "Sales Techniques in Cosmetology" course are provided by an outlook from the perspective of the students' activity manifested at individual stages of the research process with respect to joint creation of the content of classes (Fig. No. 2).

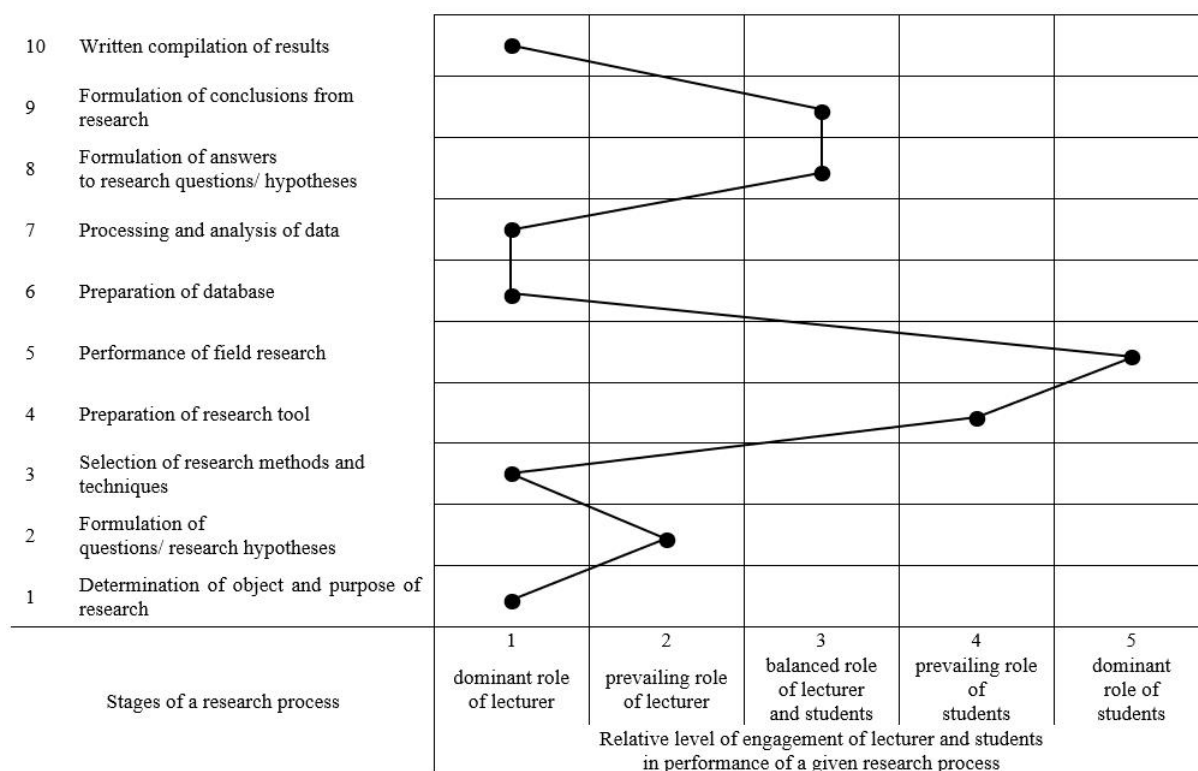


Figure 2. Relative level of engagement of the lecturer and students in performance of individual stages of empirical research as part of the “Sales Techniques in Cosmetology” course

The presented illustration shows that at the stages of the research process marked as 1, 2 and 3, the position of the lecturer was dominant; the lecturer - bearing in mind the learning outcomes and the current status of knowledge within the scope of program content stipulated for a given subject - formulated and presented the students with the basic assumptions pertaining to the prepared empirical research. At stages marked as 4 and 5, the students’ participation was very active. The students, referring to the previously presented research premises, played a decisive role in creating the research tool and carried out field research. At stages 6 and 7, the initiative was once again on the side of the lecturer. However, it must be added - which is not presented in the illustration - that a PhD student was engaged in the activities as part of this stage, which in a broader context allowed for utilizing the project for accomplishing effects in a didactic realm. Stages 8 and 9 combined, in a balanced mode, the lecturer’s and the students’ engagement, while stage 10 was carried out with a dominant role of the lecturer, while also in this case (which is not reflected in the graphic form), a PhD student was engaged in the activities once again. Even though the picture presented above may suggest that the students were not engaged in relatively many stages of the research process, it must be noted that they did not participate in the acceptance of initial project premises (as it resulted from the characteristics of the subject taught) and in the performance of “technical” activities, as entrusting students with such tasks would go beyond the framework of the subject. In this context, the students were engaged in these tasks that resulted from the purposes and specific nature of a subject and a similar illustration pertaining to the classes in the area of methodology or statistics would offer a different distribution of the students’ engagement.

The mode of performance of the case study described in this paper has to be examined, naturally, in the categories of an example, where individual solutions may be discussed and replaced with other ones. Irrespective of the above, this case illustrates the possibilities of multi-aspect engagement of students in didactic classes by preparation and performance of empirical research, closely related to the content of a specific subject.

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