

Oryginalny artykuł naukowy
Original Article

Data wpływu/Received: 14.09.2020

Data recenzji/Accepted: 28.11.2020/09.01.2021

Data publikacji/Published: 31.03.2021

Źródła finansowania publikacji: środki własne

DOI: 10.5604/01.3001.0014.8753

Authors' Contribution:

(A) Study Design (projekt badania)

(B) Data Collection (zbieranie danych)

(C) Statistical Analysis (analiza statystyczna)

(D) Data Interpretation (interpretacja danych)

(E) Manuscript Preparation (redagowanie opracowania)

(F) Literature Search (badania literaturowe)

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ON-LINE BRANCH INDUSTRY ANDRAGOGICAL ACTIVITIES – AN OVERVIEW OF QUALITY AREAS

BRANŻOWE AKTYWNOŚCI ANDRAGOGICZNE ON-LINE – PRZEGLĄD OBSZARÓW JAKOŚCIOWYCH

Abstract: Quality of branch industry andragogy (education of adults) has become an issue of importance, taking into account the necessity of lifelong and lifewide learning (LLL) and the essentiality of smart specializations. Due the COVID-19 pandemic, quality of on-line branch industry andragogical activities may prove to be a challenge.

The main aim of the article is to analyze and systematize the quality areas concerning on-line branch industry andragogical activities, enabling verification of the assumed quality areas (i.e. means of communication/education/socialization, added value, verification of achievements by the user and feedback type for the andragogical activities organizer).

The approach applied in the article is of descriptive-empirical nature. Research methods include induction, deduction and literature studies (the method of critical and comparative analysis was used). The article concludes with a suggestion of research on quality attributes, especially demanded in Poland.

Keywords: on-line branch industry andragogy, lifelong and lifewide learning (LLL), smart specializations, quality areas and attributes

Streszczenie: O istotności kwestii jakości branżowej andragogiki (czyli edukacji osób dorosłych) stanowi konieczność uczenia się przez całe życie (LLL) oraz wdrażanie inteligentnych specjalizacji. W związku z pandemią COVID-19 wyzwaniem jest jakość branżowych aktywności andragogicznych on-line.

Głównym celem artykułu jest analiza i usystematyzowanie obszarów jakościowych dotyczących branżowych aktywności andragogicznych on-line, umożliwiające weryfikację przyjętych obszarów jakościowych (tj. środki komunikacji/edukacji/socjalizacji, wartość dodana, ewaluacja osiągnięć użytkownika oraz rodzaj informacji zwrotnej dla organizatora aktywności andragogicznych).

Zastosowane w artykule podejście ma charakter opisowo-empiryczny. Metody badawcze obejmują badania indukcyjne, dedukcyjne i literaturowe (zastosowano metodę analizy krytycznej i porównawczej). Artykuł kończy się propozycją badań nad atrybutami jakościowymi, z uwzględnieniem sytuacji w Polsce.

Słowa kluczowe: branżowe aktywności andragogiczne on-line, uczenie się przez całe życie (LLL), inteligentne specjalizacje, obszary i atrybuty jakościowe

Introduction

Smart specialization policy implementation combined with the need for lifelong and lifewide learning (LLL), require focus on branch industry andragogical activities. Intensified use of advanced internet communication technologies (ICT), especially in the time of COVID-19 pandemic, means a shift from traditional and hybrid branch industry andragogical activities to solely on-line ones. Nowadays there is no quality recommendations for on-line branch industry andragogical activities, therefore the main goal of the article is to:

1. analyze and systematize the quality areas concerning branch industry andragogical activities by:

- discussion on the importance of andragogical activities (in the light of smart specialization policy and contemporary education/communication/socialization means),
- presentation of quality modern requirements (such as context, risk and process approach).

2. verify the assumed¹ four quality areas (QA):

- QA1. Means of communication/education/socialization,
- QA2. Added value,
- QA3. Verification of achievements by the user,
- QA4. Feedback for the andragogical activity organizer.

The approach applied in the article is of descriptive-empirical nature. Research methods include induction, deduction and literature studies (the method of critical and comparative analysis was used). The article concludes with a suggestion of quality attributes, taking into account the situation in Poland.

1. The importance of andragogical activities (in the light of smart specialization policy and contemporary education/communication/socialization means)

In the XIX century traditional branch industry andragogical activities (trade fairs, conferences, meetings) prospered as a specific activity not only for interaction, but also for learning². Over the years, organizers of andragogical activities such as gestors of the trade fair and congress centers, improved the infrastructure and expanded the offer of andragogical activities (organization of professional conferences/congresses, matchmaking meetings, co-organization of competitions, brokerage in advertising/publishing services). Contemporary trade fairs and congresses are an example of the complexity of the modern educational environment: a system that includes infrastructure and tools for andragogical activities, educators/facilitators and adult learners.

Also in the XIX century, the term *andragogy* was proposed in order to underline the need of special approach towards adult learning as based upon comprehension, organization and synthesis of knowledge. Although, as citing Kidd: “adult learning is not a different kind or order from child learning. Indeed our main point is that man must be seen as a whole, in his lifelong development (...). The reason why we specify adults throughout is obvious. This is the field that has been neglected, not that of childhood”³. The main principles of andragogy are as follows:

1. Adults need to know the reason for learning something (QA3).
2. Adults need to be involved in planning and evaluation (QA3).
3. Experience provides the basis for learning activities.
4. Adults are most interested in learning subjects having immediate relevance (QA2,3).

¹ Indicated quality areas correspond with the key characteristics of communication in the information society: new channels of communication (as well as education and socialization) due to ICT technologies (QA1), added value creation for new channels of communication (QA2), use of comprehensive and immediate evaluation of achieved results of communication (QA2, 3).

² P. Maskell, H. Bathelt, A. Malmberg, *Building Global Knowledge Pipelines: The Role of Temporary Clusters*, European Planning Studies 2005, 14(8).

³ J.R. Kidd, *How Adults Learn*, N.J.: Prentice Hall Regents, Englewood Cliffs 1978, p. 17.

5. Adult learning is problem-centered (QA2).
6. Adults respond better to internal motivators⁴ (QA2).

Andragogy is considered as a process model⁵. The andragogical processual learning model include a set of procedures concerning: preparing the student, creating an atmosphere conducive to learning, launching mechanisms enabling joint planning, diagnosing educational needs, formulating goals that meet these needs, designing a model of educational experiences, managing the experience with the help of appropriate techniques and measures, assessing learning outcomes and re-diagnosing educational needs⁶. Rules of andragogy⁷ can be assigned to considered quality areas, e.g.:

- QA1: target group orientation, participant orientation,
- QA2: adjusting the language of instruction to the recipients, confronting with curriculum content, self-education, integration of general and professional education, influence of emotions on the teaching-learning process, action-orientation, aestheticisation, time economics,
- QA3: work on interpretation patterns, joint perspective of a teacher and a learner, learning aims orientation, confronting with curriculum content, self-education, using humour,
- QA4: joint perspective of a teacher and a learner, learning aims orientation, confronting with curriculum content, mistake probability.

A theoretical framework which views learning as a network phenomenon influenced by emerged ICT technologies and inherent tension of socialization is called “the connectivism”. According to the connectivism⁸, knowledge is what grow and enhances, while individuals and societies enhance through and in networks, therefore learners should develop capacity to identify, navigate, and evaluate information from their learning networks (QA1, 2, 3, 4). Learners become active contributors to their networks as they use tools to share their own research and knowledge⁹. The best practices are the ones that directly refer to the learners’ needs as well as the ones that respect maximum control from a learner¹⁰ (QA3). The four key principles of connectivism as described by Downes are:

⁴ M. Knowles, E. Holton, R. Swanson, *The adult learner: The definitive classic in adult education and human resource development* (6th ed.), Elsevier, Amsterdam 2005, p. 149.

⁵ As opposed to pedagogy considered to be a content model. The andragogical model is definitely different from the pedagogical model, as it focuses on procedures and resources supporting the knowledge and skills acquisition.

⁶ M. Knowles, E. Holton, R. Swanson, *The adult learner...*, p. 149.

⁷ Presented by: I. Błaszczak, *Contemporary perspectives in adult education and lifelong learning – andragogical model of learning*, 2013, p. 309, <https://eric.ed.gov/?id=ED567158> [access: 20.06.2020].

⁸ S. Downes, *Connectivism and Connective Knowledge: essays on meaning and learning networks*, National Research Council Canada, 2012.

⁹ B.M. Transue, *Connectivism and Information Literacy: Moving From Learning Theory to Pedagogical Practice*, “Public Services Quarterly” 2013, 9(3), pp. 185-195.

¹⁰ The aspect of learners’ control can be found in following works: T. Aleksander, *Edukacja ustawiczna*, [in:] T. Pilch (ed.), *Encyklopedia pedagogiczna XXI wieku*, Warszawa 2003; L. Turos, *Andragogika autokreacji*, Warszawa 2010.

1. Autonomy, i.e.: “Each person must be free to pursue his or her own good in his or her own way” (QA1,2,3)
2. Connectedness / Interactivity: “Ideas and expressions are communicated from one to the next, originating from many different sources, rather than from one to all, diffusing from a single source” (QA1,2)
3. Diversity: “The widest possible range of beliefs and opinions ought to be sought and encouraged” (QA1,2)
4. Openness: “Each person ought to have the ability to contribute in his or her own way, and to be able to receive the contributions of the others”¹¹ (QA1, 2).

The use of ICT has enabled quality improvement in all four quality areas. In case of QA1, Internet services, digital signage, applications on smartphones bring a new quality. The use of collaborative and social tools to enhance connections, such as YouTube, Twitter, blogs, management systems, and podcasts in order to deliver on-line instruction provides learners with the opportunity to learn autonomously, but also allow them to share new knowledge with peers¹². In order to ensure increased access to knowledge (publications), *Creative Commons* (CC) licenses are recommended¹³. QA2 requires taking into account new possibilities of social learning, informal education and shaping social relations as well as the assumptions of the information ecology¹⁴ and matchmaking solutions¹⁵.

The program for boosting the economic and social development of EU countries, undertaken under the *Lisbon Strategy* and continued in line with the *Europe 2020 Strategy*, includes promoting changes in education and training systems towards systems that facilitate and support lifelong and lifewide learning (LLL)¹⁶. General principles of LLL policy apply to different levels of administration in the Member States (central, regional and local) and to different education providers (education and training) – within education systems and outside these systems (organizers of non-formal education). The LLL rules *correspond mainly with QA3,4*, as concern:

- valuing learning in different forms and places (lifewide learning);
- valuing learning at every stage of life (lifelong learning);
- assessment and confirmation of learning outcomes (regardless of where, how and when it took place);
- investing effectively in learning,

¹¹ S. Downes, *These Principles*, <https://halfanhour.blogspot.com/2007/12/these-principles.html> [access: 20.06.2020].

¹² M. Mallon, *The new distance learners. Providing customized online research assistance to urban students on the go*, “Urban Library Journal” 2012, nr 18(1).

¹³ Licenses available at: <https://creativecommons.org/>.

¹⁴ As referred to in: W. Babik, *Ekologia informacji*, Wydawnictwo Uniwersytetu Jagiellońskiego, Kraków 2014.

¹⁵ As referred to in: A.E. Roth, *Matchmaking. Kto co dostaje i dlaczego*, Wydawnictwo MT Biznes, Warszawa 2017.

¹⁶ Poland has begun creation of the *Polish Qualifications Framework*: <http://www.kwalifikacje.gov.pl>.

The smart specialization notion proposed by¹⁷ aims to increase innovativeness and competitiveness of regions on the basis of their endogenous potential and the already functioning regional industries, i.e. sectors with high innovation and competitive potential (scientific and technological specializations). *Smart specialization* origins are linked with the European Commission's *Europe 2020 Strategy* and three aspects of smart specialization policy: smart, specialized and strategic¹⁸ (*corresponding with the QA1, 2, 3, 4*).

2. Quality Modern Requirements Overview

Every system has to be updated in order to reflect changes usually caused by the necessity to adapt to new possibilities and operating conditions. Observation of changes concerning quality management systems can provide vital information on contemporary quality requirements.

The recent amendment to the most recognized quality management system, i.e. ISO, took place in 2015. The distinguished changes in ISO 9001: 2015¹⁹ (in comparison to earlier versions) concern not only noticeable bureaucracy reduction²⁰, but primarily:

- context (understanding the context of the organization),
- risk (performing risk assessment around significant issues affecting quality),
- process approach (putting emphasis on performance assessment and improvement).

Understanding the context of the organization requires the identification of external and internal factors relevant to the goal and strategic direction of its operation. The organization should determine the knowledge necessary to operate its processes and achieve compliance of products and service. Organizational knowledge is knowledge specific to a given organization, it is gained through experience. The knowledge can be based on external sources (i.e.: standards, academia, conferences, information from customers and external suppliers) and internal sources, (i.e.: intellectual property, knowledge gained from mistakes/successful projects, as well as results of the improvement of processes, products and services) – therefore it influences QA1, 2, 3, 4.

¹⁷ D. Foray, K. Morgan, S. Radosevic, *The role of smart specialisation in the EU research and innovation policy landscape*, https://ec.europa.eu/regional_policy/sources/docgener/brochure/smart/role_smart-specialisation_ri.pdf [access: 24.06.2020].

¹⁸ *Strengthening Innovation in Europe's Regions*, https://ec.europa.eu/regional_policy/sources/docgener/guides/smart_spec/strength_innov_regions_en.pdf [access: 25.06.2020].

¹⁹ ISO 9001:2015(en). *Quality Management Systems — Requirements*, <https://www.iso.org/obp/ui/#iso:std:iso:9001:ed-5:v1:en>. [access: 20.06.2020].

²⁰ Flexible requirements of the new ISO standard make it possible to depart from extensive documentation, including resignation from the expanded *Quality Manual*. The documentation related to the new ISO 9001:2015 Standard, adjusted by the author (ISO Coordinator at Targi Kielce S.A.), consisted of 17 pages only.

Identifying risks and opportunities strongly affects QA1, 2, 3, 4. ISO requires identifying risks and opportunities that need to be addressed, as well as how to integrate, implement and evaluate the activities. Actions to address risks and opportunities should be proportionate to the potential impact on the compliance of products and services. The risk-based catalog of actions may include risk avoidance, risk taking to seize an opportunity, removing a risk source, changing the probability or consequences, sharing the risk or stopping the risk based on an informed decision. Opportunities may include adopting new practices, introducing new products, opening new markets, acquiring new customers, building partnerships, using new technologies and other desired and real opportunities, taking into account the needs of these organizations or its clients. No less important are the resources for monitoring and measurement as the organization is responsible for ensuring suitable type of monitoring and measurement activities, being an essential part of the quality management.

The process approach is strongly recommended for quality management. The *PDCA (Plan-Do-Check-Act) Cycle* is the best known decision model for continuous quality improvement and it can be applied to all kinds of processes and be implemented in all business aspects. The fundamental principle of the never ending quality cycle is iteration and improvement allowing to improve organizational processes and products/services. Executing the cycle repeatedly make it possible to extend the knowledge (regarding context and risk as well) further and to update and monitor validity of QA1, 2, 3, 4.

Summary. Conclusions concerning quality areas and attributes for andragogical activities

LLL is based on “continuous renewal and improvement of knowledge and qualifications”²¹, therefore an andragogical processual model is of great relevance – as well as its quality.

Discussion on the importance of branch industry andragogical activities (in the light of smart specialization policy and contemporary education/communication/socialization means) and the modern quality requirements presentation (such as context, risk and process approach) justified the selection of QA1,2,3,4 and enabled to specify attributes (*as presented in Table 1*), although the following enumeration of attributes should still be treated as an “open catalogue”.

²¹ T. Aleksander, *Edukacja ustawiczna*, [w:] T. Pilch (red.), *Encyklopedia pedagogiczna...*, p. 985.

Table 1. Quality Areas and attributes for on-line branch industry andragogical activities
 Tabela 1. Obszary i atrybuty jakościowe branżowych aktywności andragogicznych on-line²²

QUALITY AREAS:	ATTRIBUTES:
Q1. Means of communication/ education/socialization	<ul style="list-style-type: none"> • <i>personalized message tailored to the needs and capabilities (matchmaking/recommendation system)</i> • <i>mass media communication, using all available channels²²</i> • ...
Q2. Added value	<ul style="list-style-type: none"> • <i>community participation</i> • <i>infotainment/edutainment</i> • <i>Creative Commons license</i> • <i>time economics</i> • ...
Q3. Verification of achievements by the user	<ul style="list-style-type: none"> • <i>individual indicators selected by the user/ongoing verification of achievements</i> • <i>information on completion of a given stage / a user's achievements against the background of all users</i> • ...
Q4. Feedback for the andragogical activity organizer	<ul style="list-style-type: none"> • <i>financial and non-financial indicators and the possibility of comparison to previous editions of the activity</i> • <i>the implementation of planned goals and identifying areas for improvement in subsequent activity editions</i> • <i>communication/educational/socialization impact of the activity on the industry</i> • ...

Source: own; based on: A. Kanabrocka, *Connectivism. Implications for andragogical activities during professional gatherings*, "Studia Pedagogiczne. Problemy Społeczne, Edukacyjne i Artystyczne" 2020, tom 35.

Further research should explore preferable combination of attributes²³ for on-line branch industry andragogical activities – ideally determined by the members of smart specializations consortia (representing²⁴: business, science, administration as well as media-based and culture-based public²⁵). The findings could be used by

²² Although personalized and tailored messages may seem to be a better solution, recent Poznan Trade Fair R&D project concerns implementation of multi-stream, mass communication campaigns. Automated feedback from all channels is to allow the analysis and measurement of the effectiveness of the campaign and the examination of trends Source: MTP, <https://swep.mtp.pl/pl/> [access: 23.06.2020].

²³ The author's assumption is to conduct a *conjoint analysis*.

²⁴ Taking into account findings presented in: E.G. Carayannis, D.F.J. Campbell, 'Mode 3' and 'Quadruple Helix': Toward a 21st century fractal innovation ecosystem, "International Journal of Technology Management" 2009, 46, pp. 201-234.

²⁵ This fourth group associates with notion of the 'creative class' (a term introduced by Richard Florida).

organizers of on-line branch industry andragogical activities while planning/doing/checking/acting leading to constant improvement of andragogical processes.

It is also worth mentioning, that in Poland, in accordance with the recommendations of the World Bank Group²⁶, enterprises require special support in developing interests and access to knowledge about market and technological trends. It was recommended to modify the public sector offer in the scope of providing industry-specific knowledge²⁷. Noticed challenge concerning adapting ICT solutions to on-line branch industry andragogical activities sign in with the provisions of the catalogue “National Smart Specializations (NSS)²⁸” as the 14-th NSS constitute *Intelligent Creation Technologies*, including points mentioned in Section III. Multimedia (among others: *Support and optimization of processes, Shaping the market of creators and consumers, Distribution and management of content, Archiving and smart access to content*). Therefore identified research gap concerning quality areas and attributes is of importance not only for theoretical reasons, but also practical ones. The challenge is to make aware all members of smart specialization consortia (representing business, science, administration as well as media-based and culture-based public) of the importance of quality in case of on-line branch industry andragogical activities and to encourage all of them to conscious reflection and action aimed at quality improvement.

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²⁶ W kierunku innowacyjnej Polski: Proces przedsiębiorczego odkrywania i analiza potrzeb przedsiębiorstw w Polsce, World Bank Group, p. 75, <http://documents.worldbank.org/curated/en/805821467993730545/pdf/106148-REPLACEMENT-POLISH-v2-REPORT-Web.pdf> [access: 25.07.2020].

²⁷ E.g. free industry bulletins/reports, open lectures for the private sector organized by public universities, as well as networking and free dissemination of specialist knowledge by internet innovation platforms.

²⁸ *National Smart Specializations* (version 5 – valid since 1st January 2019), https://smart.gov.pl/images/pdf/Opis-KIS---ENG_FINAL-2019.pdf.

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