

# Creativity, Readiness for Changes and Tolerance for Ambiguity

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**Abstract:** *Under the conditions of precarious situation, caused by the global pandemic and unprecedented restrictions, aimed at countering it, productivity of specialists in various fields of work is reducing significantly. This is particularly true of activities, conducted through direct communication between concerned parties. In order to counter instability, workers have to develop creativity, readiness for changes and tolerance for ambiguity. The goal of research is to establish correlations between the type of professional activity and creativity, readiness for changes and tolerance for ambiguity. The respondents of the study were 260 people of working age –the staff of event, tourism, restaurant business, trade, IT spheres. The research procedure included organizational, target-oriented, empirical, final stages. Time limits of the study – April – July 2020. For psychodiagnostics the article uses the Torrance test of creative thinking, diagnostics of personal creativity by Tunik, the methodology “personal readiness for changes”, the scale of individual’s tolerance for ambiguity by McLain. The study found clear correlations between the indicators of creativity, readiness for changes and tolerance for ambiguity. The original model of a creative specialist (endowed with originality, adaptability, optimism and common sense) in the conditions of changes and uncertainty was formed in the research.*

*The results of psychodiagnostics showed the highest indicators of creativity among IT workers, readiness for changes—among the staff of IT and event spheres, tolerance for ambiguity—among retail workers. In the conditions of pandemic destruction, the workers of the tourism industry were the least creative, while the workers of the event sphere turned out to be unprepared for changes and the workers of the event and tourism industries –intolerant for ambiguity. The results of the study can be used to develop correctional programs to increase the staff’s creativity, readiness for changes, tolerance for ambiguity. It is the development and implementation of effective psycho-correctional programs for the use of real communication and digital tools that are the prospect of further scientific research on the ways to solve the problem.*

**Keywords:** *ambiguity, innovations, crisis situations, professional activity, psychodiagnostics.*

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## 1. Introduction

Recent years have been characterized by radical social transformations, economic and political instability, re-orientation of the communications system to the virtual world, the digitalization of internal and external relations of both small businesses and large corporations. All this negatively affects the psychiatric health of a person, who experiences imbalance of customary professional resources and is forced to reorient constantly due to the introduction of unexpected and undesirable innovations, has to be ready to work under new, often unstable conditions, to resort to professional experiments with unknown and questionable results. Such challenges lead to a number of problems, related to maintaining the appropriate level of productivity of workers in various fields, who are most integrated into contact communicative interaction, and were disbalanced in the period of social distancing and other social destructions caused by the global pandemic. At the same time, the selection, development and implementation of effective corrective tools for proper psychological support of specialists in various spheres of activity in unstable conditions becomes especially relevant. Such support will be effective only in case of empirically obtained clear data on the psychological state of workers in unstable working conditions. This is especially true of those activities in which there has occurred radical reformatting of the communications system and it was necessary to diversify the ways and means of establishing dialogue with clients.

At a time of modern social transformations and critical challenges there is a need in the creative approach to the decision of difficult and contradictory situations, in adequate response to essential changes and innovations and in the ability to work under the conditions of uncertainty. Adapting to changing circumstances, members of society face many difficulties that negatively affect their psychological state. In order to avoid psychological disparities, it makes sense to develop creativity, to be ready for cardinal changes in the sphere of activity, to show tolerance for ambiguity in the conditions of critical challenges and additional restrictions.

In case of any transformation, different areas of human activity require creative approaches to solving problems, which can be implemented only by those employees, who not only know how to work creatively, but are also able to generate creative ideas under fast-changing conditions, in volatile periods and when it is impossible to accurately assess possible results of the introduction of the previously generated creative ideas. In maintaining

and increasing high level of employees' creative search, their adequate response to significant changes in working conditions and tolerant attitude to the uncertain or unpredictable result of professional activity plays an important role, which will have decisive impact on the productivity in the periods of destructive transformations.

## **2. Literature review**

Today, there is a problem of negative impact of the global pandemic, economic uncertainty, socio-economic and socio-cultural factors, instability on the individual (Godinic et al., 2020; Sibley et al., 2020; Varina & Gworys, 2020), so the scientists look for the ways to overcome these negative manifestations (Fischer et al., 2021). In scientific works, the solution to the abovementioned problems is seen in the realization of a person's creative potential in his/her professional activity, as evidenced by the clear correlation between creativity and the level of a person's ambiguous perception (Robinson et al., 2019), in the formation of a person's competences, aimed at further creative activity, development of critical thinking, anticipation of opportunities, tolerance for ambiguity (Cropley, 2020). The researchers have justified positive effect of improvisation on the formation of creativity and tolerance for ambiguity (Felsman et al., 2020), have offered training as a means of developing person's creative potential and overcoming stress under conditions of uncertainty (Anderson et al., 2020), have emphasized the importance of empathy and emotional intelligence in decision-making in the situations of uncertainty (Vyatkin et al., 2020). There is clear positive correlation between employees' creativity and the level of implementation of innovations under conditions of risk and uncertainty (Zheng & Miller, 2017), between a person's creativity and psychological well-being in the context of global destruction (Orkibi, 2021), between creativity and formation of leadership qualities of the individual (Oosthuizen, 2020), between tolerance for ambiguity and creativity, job satisfaction, welfare of the employees, development of critical thinking, success and efficiency of activities of the organization in volatile environments (O'Connor et al., 2017; Cameron et al., 2018; Miao & Cao, 2019).

Creativity in resource-poor settings and tolerance for ambiguity are among the most important components of entrepreneurial mentality and the basis for effective business career growth (Peschl et al., 2020), an important context for consolidation of efforts of all the parties involved in order to maintain creative atmosphere and establish cooperation in organizations in

the context of digitalization of society (Mayer, 2019). Scientists attach great importance to the development of creative skills in educational institutions (Burnett & Smith, 2019), the determining factors of creativity are considered to be cognitive abilities, motivation, socialization (Mehta & Dahl, 2019), self-confidence and belief in one's own convictions (Anderson & Haney, 2020). The main criteria of creativity in modern unstable environment include the ability to generate non-standard ideas, forecasting, risk and tolerance for ambiguity (Yamnenko, 2021).

Of great importance in the formation of the individual's creative potential is the development of professionally significant qualities, which allows to develop the skills of effective professional interaction and to improve self-perception (Dobina et al., 2019), which is also important under ambiguity and in the context of introduction of innovations. The main factors of a person's readiness for change, for innovations in particular, in terms of professional activity include creativity, risk for success, fixation on future, ingenuity, confidence, expressiveness (Dysa, 2020), intellectual activity, generating ideas, tolerance for ambiguity, critical thinking, reflection (Mishchukha, 2019), overcoming discomfort in the perception of ambiguity, the system of values and individual's personal qualities. Scientists emphasize the difficulties in identifying tolerance for ambiguity among the representatives of different professions and their negative manifestations in the individual's psychological state (Tanovic et al., 2018), the impossibility of avoiding ambiguity and the need to manage it (Koffman et al., 2020), taking into account the role of cognitive, behavioural and emotional aspects of the personality in the formation of tolerance for ambiguity (Afanasieva & Ponomarenko, 2021).

The abovementioned scientists stress the need to mainstream the problem of creativity, readiness for change and tolerance for ambiguity in the periods of economic recession, social destruction, in critical situations and even in global crises. Researchers also indicate a clear link between the level of a person's creativity and his/her readiness for changes and tolerance for ambiguity, the impact of high level of creativity, readiness for changes and tolerance for ambiguity on employees' productivity, job satisfaction, perception of innovations and efficiency of the company's operations as a whole. However, manifestations of creativity, readiness for changes and tolerance for ambiguity during the global crisis, the influence of restrictions caused by the global pandemic on these features and the search for effective forms, means and tools to increase their level in the representatives of various professions has not been studied sufficiently.

The analysis of the aforementioned problem gives grounds to formulate the following hypotheses: creativity, readiness for changes and tolerance for ambiguity in the conditions of social constraints caused by the worldwide pandemic show themselves in the representatives of different professions in different ways and contribute to rising productivity, formation of non-standard ideas and make the individual more susceptible to innovations.

### ***2.1. Problem statement***

The analysis of scientific sources resulted in the need for empirical verification of manifestations of creativity, readiness for changes and tolerance for ambiguity in the representatives of various professions in the conditions of social constraints caused by the worldwide pandemic.

The purpose of the article is to establish empirically the correlation between the type of professional activity and creativity, readiness for changes and tolerance for ambiguity in the representatives of various professions in the conditions of social constraints caused by the worldwide pandemic.

The objectives of the article are as follows:

- to analyse coverage of the problem of creativity, readiness for changes and tolerance for ambiguity;
- to conduct an empirical survey of creativity, readiness for changes and tolerance for ambiguity in the people working in the spheres of services (event, tourism), trade, restaurant business and IT;
- to compare the obtained results with the available foreign experience in the specified research topic;
- to find the general and the particular, to conclude on the relationship between professional activity and creativity, readiness for changes and tolerance for ambiguity in the conditions of social constraints caused by the worldwide pandemic.

The novelty of the research lies in the empirical determination of the correlation between professional activity and creativity, readiness for changes and tolerance for ambiguity in the conditions of social constraints caused by the worldwide pandemic.

## **3. Methods and materials**

### ***3.1. Research design***

The study covered such areas of activity as: event, tourism, restaurant business, trade, IT spheres. The respondents of the scientific

research were the employees of event agencies “Ovatio”, “Pikan” in Lviv; travel agencies “Feieria Mandriv”, “Pilgrim” in Lviv; the staff of the restaurants “Pivdenna Brama”, “SobkoF” in Khmelnytskyi; the staff of such supermarkets as “ATB”, “Epitsentr” in Vinnytsia; “Global Logic” in Kyiv. The survey population was 260 people (135 men and 125 women) aged 18 to 65 years. The choice of respondents from different areas of activity is motivated by significant transformational impact of social distancing on them, as these areas involve direct contact between all parties concerned. These are event services, tourism services, restaurant business, trade. IT sector was chosen to study the growing demand for technologies in the context of social distancing and the changes imposed on the above-mentioned service industries.

The research procedure included the following stages: organizational and target – determining the purpose and objectives of the scientific research; selection of psychodiagnostic methods, determination of target audiences of respondents; inviting respondents to participate in the survey, obtaining consent to participate in the survey; empirical stage – conducting psychodiagnostics among pre-selected respondents, recording and processing of the obtained empirical data; final stage – analysis and interpretation of psychodiagnostic data, establishment of correlations, formulation of conclusions. The study was conducted during April – July 2020 – the crisis period, caused by social constraints due to the worldwide pandemic. It was chosen to study creativity, readiness for changes and tolerance for ambiguity in the representatives of different professions in a crisis situation.

Valid psychodiagnostic methods were used for interviewing groups of respondents, namely: the Torrance test of creative thinking and the diagnostics of personal creativity by Tunik – to assess creativity; the methodology “personal readiness for changes” (adapted by Bazhanova and Bardiier, 2005, pp.169–178) – to determine readiness for changes; the scale of individual’s tolerance for ambiguity by McLain (adapted by Osin, 2010) – to determine tolerance for ambiguity.

It is the chosen methods that make it possible to assess manifestations of creativity in an uncertain or crisis period, to identify the ability to be tolerant in conditions of risk and ambiguity; to establish the person’s readiness to respond adequately to changes and innovations that occur in difficult periods of economic and social transformations.

### ***3.2. Sample study***

Respondents of the second group – social media users, including 40 employees of event agencies, 40 employees of the tourism industry, 60 employees of the restaurant business, 70 employees of trade industry, 50 IT specialists – were interviewed through social networks Facebook and Instagram using Google forms.

Geographical location of respondents: Ukrainian cities Lviv, Khmelnytskyi, Vinnytsia, Kyiv.

### ***3.3. Intervention***

The survey was conducted anonymously on a voluntary basis for four months. All respondents agreed to participate in psychodiagnostic procedures. Psychodiagnostics did not involve interference into the activities of respondents and was carried out only in off hours.

### ***3.4. Research limitations***

The age of the respondents was 18 to 65 years. A total of 90 people aged 18-29, 88 people aged 30-50, 82 people aged 50-65 were interviewed. The sample was formed in such a way so as to cover economically and socially active population of different ages.

### ***3.5. Statistical analysis***

The primary data was recorded in Excel table. In order to confirm the accuracy of results we have used the non-parametric Mann-Whitney U-test, which was calculated using version 23 of the computer program “Statistical Package for the Social Science” (SPSS-23) for Windows.

## **4. Results**

The study involved diagnosing the assessment of creativity using the Torrance test of creative thinking, assessment of personal creativity by the method of Tunik, determining readiness for changes by the methodology “personal readiness for changes” (translated and adapted by Bazhanova and Bardier, 2005), assessment of tolerance for ambiguity by the scale of individual’s tolerance for ambiguity by McLain.

The usage of Torrance test of creative thinking made it possible to evaluate such diagnostic constructs as: ease of performing professional tasks, flexibility as the ability to switch from one kind of activity to another, originality and development in the completion of professional tasks. Despite targeting of this technique to younger respondents, it can be quite

appropriate to use it for interviewing mature people, as the indicators, determined by it, indicate the propensity for creativity in the respondents of all ages. The results of the survey, conducted by the Torrance test of creative thinking, are shown in Table 1.

**Table 1.** The results of diagnostic ting according to the Torrance test of creative thinking

| Areas of activity<br>/ points | Indicators of creativity                       |             |             |             |
|-------------------------------|------------------------------------------------|-------------|-------------|-------------|
|                               | Ease of<br>performing<br>professional<br>tasks | Flexibility | Originality | Development |
| Event                         | 9,7                                            | 7,4         | 9,8         | 40,3        |
| Tourism                       | 9,1                                            | 7,6         | 10          | 39,0        |
| Restaurant business           | 9,1                                            | 8,1         | 10          | 39,7        |
| Trade                         | 9,7                                            | 8,0         | 10,5        | 38,7        |
| IT                            | 8,9                                            | 7,9         | 10,7        | 40,4        |
| Average value                 | 9,3                                            | 7,8         | 10,2        | 39,6        |

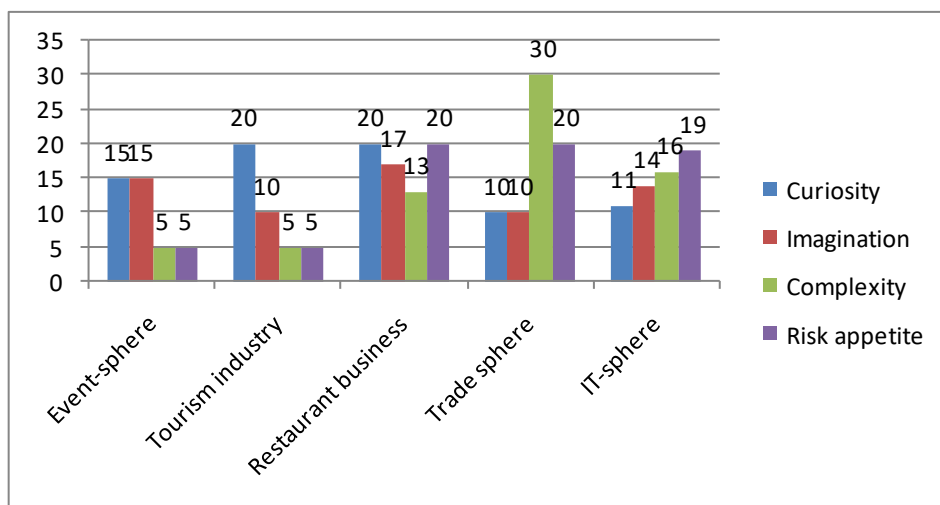
Source: Authors' own conception

The empirical data, presented in the table, reflect the creativity of the respondents and allow to claim that it is the easiest to perform complex tasks for the event staff who are characterized by high degree of development in detailing the work accomplished. They show moderate originality in carrying out their duties, but it is more difficult for them to switch from one object to another when performing tasks. In general, this trend reflects peculiarities of the event-sphere, where employees should show ease and originality in carrying out their work. However, event-sphere employees, who participated in this research, lack flexibility and development, which is equally important for successful performance of professional functions. Workers in the tourism sector, who were respondents of the study, are characterized by ease and originality in performing work assignments, but lower indicators of development and flexibility testify to respondents' low ability to be creative in uncertain and volatile situations. Restaurant workers are characterized by relative originality and moderate development, they perform their tasks with moderate ease, but are less flexible in switching from one task to another, which is especially important for successful performance of their professional functions. Retail workers easily perform their professional duties and are also original in implementing their tasks, but they are characterized by insufficient flexibility



and development in performing professional functions. IT specialists showed high indicators of originality and development, but they are less flexible and it is more difficult for them to cope with complex tasks, which is rather important in their professional activities, especially in times of crisis, when there is high social demand for technologies.

In order to establish other indicators of creativity we also used the technique for diagnosing personal creativity (created by Tunik), which makes it possible to identify such diagnostic constructs as: curiosity, imagination, complexity, risk appetite. These parameters themselves are the reflection of respondents' ability to get creative in critical and uncertain situations, to respond adequately and constructively to innovations in the professional sphere. The results of the survey, conducted by the technique for diagnosing personal creativity (created by Tunik) are shown in the diagram (Figure 1).



*Figure 1. The results of diagnostic testing according to the method of personal creativity by Tunik*  
Source: Authors' own conception

The empirical data presented in Figure 1 show the prevalence of curiosity and imagination among the employees of the event-sphere (15 people, 37.5%) and low rates of complexity and risk appetite (5 respondents, 12.5%). Tourism employees have the highest rate of curiosity (20 people, 50%), but at the same time only a small number of them are endowed with high level of imagination (10 people, 25%), perceive complexity and have risk appetite (5 people, 12.5%). Restaurant workers are equally curious and prone to risk (20 people, 33.3%) but with less noticeable imagination (17

people, 28.3%) and interest in complex things (13 respondents, 21.7%). Retail workers are the best at carrying out difficult assignments (30 people, 42.9%), but they are somewhat less prone to risk (20 people, 28.6%) and a small number of them show curiosity and imagination (10 people, 14, 3%). The largest number of employees, prone to risk (19 people, 38%) and to perform complex tasks (16 people, 32%) is among IT professionals, but they are less imaginative (14 people, 28%) and curious (11 people, 22%). In general, the most curious are the employees of the tourism industry and the restaurant business, while event staff has the most active imagination. Retail workers perform complex tasks most easily, while IT professionals and restaurant workers are most prone to risk.

Susceptibility, response and attitude of respondents to innovations (both desirable and forced) were assessed by the methodology “personal readiness for changes” (translated and adapted by Bazhanova and Bardier, 2005). Its use made it possible to take into account such diagnostic constructs as: passion (the ability to work energetically and tirelessly on the completion of professional tasks), common sense, optimism, courage, adaptability, confidence and tolerance for ambiguity. Empirical data, obtained by the methodology “personal readiness for changes” (translated and adapted by Bazhanova and Bardier, 2005) are shown in Figure 2.

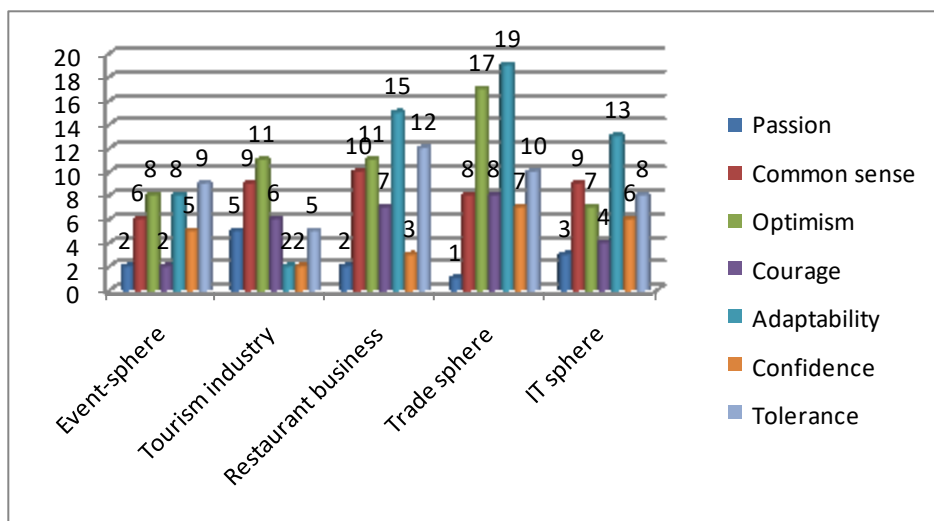


Figure 2. The results of the diagnosis of readiness for changes  
Source: Authors' own conception

Based on the data shown in Figure 2, it can be argued that the employees of the event-sphere are first of all characterized by tolerance (9), optimism (8), adaptability (8), less pronounced are common sense (6), confidence (5), while passion (2) and courage (2) are poorly expressed. Tourism employees have high rates of optimism (11) and common sense (9), but they are characterized by less pronounced manifestations of passion (5), courage (6), tolerance (5), while adaptability (2) and confidence (2) are poorly expressed. Restaurant workers are characterized by the prevalence of adaptability (15) and tolerance (12) but they show less optimism (11), common sense (10), courage (7). However, they are least characterized by confidence (3) and passion (2). People with high levels of adaptability (19) and optimism (17) work in trade, at the same time they have less tolerance (10), common sense and courage (8), confidence (7). However, they showed low level of manifestations of passion (1). IT specialists have high levels of adaptability (13), lower levels of common sense (9), tolerance (8), optimism (7), and the lowest rates of confidence (6), courage (4), passion (3).

Thus, the interviewed representatives of different types of activity are practically not characterized by passion, which indicates their inability to work energetically, tirelessly, to maintain high vitality. The vast majority of all respondents do not show courage, which indicates lack of striving for the new, unknown, testifies to the inability to give up the tried and reliable. Also, all respondents have low levels of confidence, which gives grounds to say that they have almost no self-confidence, belief in their abilities and strengths, in their ability to change something, motivating it by their own desires. This indicates negative trends, because in conditions of instability, crisis situations, social destruction, an important role is played by self-confidence, ability and desire to change something for the better through their own efforts, the desire to work hard and tirelessly towards a result.

Among the positive aspects it is worth noting the existence of such diagnostic constructs, characteristic of all respondents, as: adaptability, which reflects the ability to adapt to new situations and new conditions; optimism, which reflects hope and commitment to succeed, the desire to perceive the unstable reality not as a problem, but as an opportunity to solve it; common sense, which indicates the ability to discover a solution of the difficulty, while appealing to new sources of information; tolerance for ambiguity, thanks to which respondents can demonstrate lenient attitude to difficult, uncertain situations, situations with unclear results. Among the respondents, the largest number of those prone to common sense were recorded among restaurant business employees and IT professionals.

Employees of trade, restaurant, IT spheres turned out to be the most adaptive people. A significant number of retail workers are optimistic.

The scale of individual's tolerance for ambiguity by McLain, used in this scientific research, allows to assess respondents' attitude to novelty, to challenging assignments and to ambiguity. The data, obtained using the scale of individual's tolerance for ambiguity by McLain, are summarized in Table 2.

Table 2. The average values according to the results of the investigation of tolerance for ambiguity according to McLain's scale

Source: Authors' own conception

| Areas of activity<br>Points | Diagnostic constructs |            |           |
|-----------------------------|-----------------------|------------|-----------|
|                             | <i>Novelty</i>        | Complexity | Ambiguity |
| Event                       | 4,7                   | 3,9        | 3,4       |
| Tourism                     | 4,3                   | 4,3        | 3,9       |
| Restaurant business         | 4,5                   | 4,4        | 4,7       |
| Trade                       | 4,9                   | 4,5        | 4,7       |
| IT                          | 4,9                   | 4,1        | 3,3       |
| Average value               | 4,6                   | 4,2        | 4,0       |

As can be seen from Table 2, employees of trade and restaurant business are most of all susceptible to novelties, while tourism workers remain conservative in this respect. Positive perception of challenging assignments is most characteristic of employees in such areas as trade, restaurant business and tourism. Negative perception of everything challenging is recorded in event-sphere workers. Retail workers and restaurant employees showed the most pronounced positive attitude to uncertain situations, while IT professionals are less susceptible to ambiguity.

The study examined the correlations between creativity indicators according to the methodologies of Torrance and Tunik (Table 3) and identified significant diagnostic constructs according to the methodology "personal readiness for changes" (adaptability, common sense, optimism, tolerance for ambiguity) and the scale of individual's tolerance for ambiguity by McLain (attitude to novelty and ambiguity).

Table 3. Correlation analysis of indicators of creativity, readiness for changes and tolerance for ambiguity

Source: Authors' own conception

| Scales                  | Ease of performing professional tasks | Flexibility    | Originality   | Development   | Curiosity     | Imagination  | Complexity     | Propensity for risk |
|-------------------------|---------------------------------------|----------------|---------------|---------------|---------------|--------------|----------------|---------------------|
| Adaptability            | ,223*<br>,017                         | ,145<br>,099   | -,011<br>,701 | -,001<br>,780 | 221*<br>,016  | ,077<br>,323 | ,144<br>,122   | ,022<br>,533        |
| Common sense            | ,265**<br>,003                        | ,277**<br>,008 | ,213*<br>,013 | ,118<br>,005  | ,211*<br>,013 | ,088<br>,325 | ,287**<br>,000 | ,133<br>,199        |
| Optimism                | ,137<br>,198                          | ,033<br>,129   | ,031<br>,648  | ,056<br>,559  | ,177<br>,072  | ,112<br>,025 | ,166<br>,199   | ,266**<br>,003      |
| Tolerance for ambiguity | ,179<br>,054                          | ,055<br>,567   | ,017<br>,672  | ,034<br>,483  | ,117<br>,376  | ,041<br>,505 | 229*<br>,018   | ,177<br>,055        |
| Novelty                 | ,245**<br>,007                        | ,211*<br>,010  | ,221*<br>,013 | -,007<br>,844 | ,076<br>,323  | ,111<br>,222 | ,187<br>,055   | ,261**<br>,005      |
| Ambiguity               | ,209*<br>,011                         | ,187<br>,205   | -,031<br>,455 | ,114<br>,253  | ,121<br>,169  | ,118<br>,372 | ,279**<br>,004 | ,202*<br>,039       |

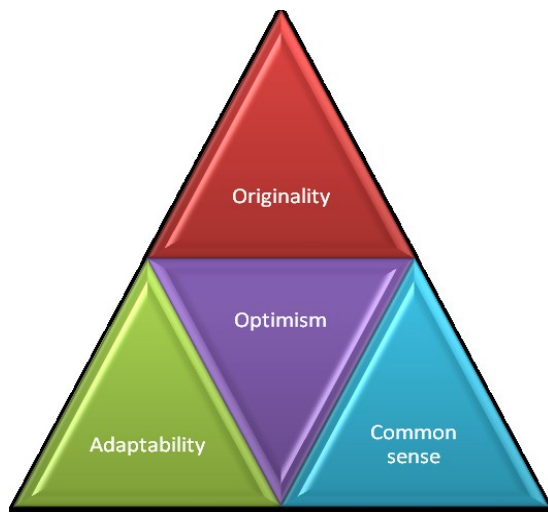
Note: \*\* – the correlation is correct at the level of  $p \leq 0,01$ ; \* – the correlation is correct at the level of  $p \leq 0,05$ .

As can be seen from Table 3, the study found clear correlations between the indicators of creativity and readiness for changes and tolerance for ambiguity, in particular: 1) between the ease of performing professional tasks and adaptability, common sense, attitude to novelty and ambiguity; 2) between the flexibility and common sense and attitude to novelty; 3) between originality and common sense and attitude to novelty; 4) between curiosity, adaptability and common sense; 5) between complexity, common sense, tolerance for ambiguity and uncertainty; 6) between propensity for risk, optimism, novelty and uncertainty. The above-described gives grounds to formulate the following:

- respondents who easily perform professional tasks, are adaptive, quick-minded, more receptive to something new, take ambiguity and uncertainty adequately;
- respondents who are flexible, in other words easily switch from one kind of activity to another, are smart and receptive to innovations;

- respondents, who are characterized by an original approach to solving professional problems, often show common sense and embrace of novelties;
- inquisitive respondents are more prone than others to the manifestations of adaptability and common sense in unclear situations;
- respondents who can easily perform complex professional tasks are smart enough, they more often show tolerance for ambiguity and adequately respond to uncertainty;
- risk-prone respondents are characterized by optimism, positive perception of novelties and show tolerance for ambiguity.

The conducted research makes it possible to build an author's model of the personality of a specialist who works under conditions of changes and ambiguity (Figure 3).



**Figure 3.** *Author's model of a creative specialist working under conditions of change and ambiguity*

Based on the analysed empirical data, it can be argued that IT-specialists are the most creative under crisis conditions, because they are characterized by such indicators of creativity as originality, development, imagination, complexity, propensity for risk. The average level of creativity is inherent to the employees of the event-sphere (ease of performing professional tasks, development, curiosity, imagination), restaurant business (development, curiosity, propensity for risk, imagination), the area of trade (ease of performing professional tasks, originality, complexity, propensity for risk). Tourism professionals are less prone to creativity (development,

curiosity). Employees of the IT industry have high level of readiness for changes under crisis conditions, as they are characterized by adaptability, common sense, tolerance, while personnel of the event-sphere is endowed with tolerance for ambiguity, optimism, adaptability. Moderate susceptibility to changes was shown by tourism employees (optimism, common sense), restaurant workers (adaptability, tolerance), trade workers (adaptability, optimism). Employees of the event-sphere showed low readiness for changes. Trade workers are most tolerant for ambiguity, as they show positive attitude towards novelties and complex tasks, adequately treat ambiguity and uncertainty. Restaurant workers (complexity, ambiguity) and IT specialists (novelty) showed tolerance for ambiguity at the medium level.

## **5. Discussion**

Scientific research, similar to our study, confirms the correlation between creativity and tolerance for ambiguity in the context of specific professional activities of respondents, which is manifested in a significantly higher level of tolerance for ambiguity in creative individuals (Robinson et al., 2019). Empirical research also proves the impossibility of implementing innovations without realizing the creative potential of the individual and his/her susceptibility to risk and verify the correlation between the specific features of a particular professional activity and the individual's creativity and productivity (Zheng & Miller, 2017). Advocacy for the idea of developing the so-called creative adaptability as a cognitive-behavioural-emotional ability to respond creatively and adaptively to stressful situations is similar to the concept of our study (Orkibi, 2021). The diagnostic constructs, which we have verified empirically, including creativity, tolerance for ambiguity and adaptability, are also included in the program for developing entrepreneurial thinking and building an entrepreneurial career, proposed by the researchers (Peschl et al., 2020). Related to the topic of our research is the concept of the study, which aimed to develop new practical tools for determining the employee's tolerance for ambiguity in the workplace. This study confirmed the connection between creativity and tolerance for ambiguity, the individual's professional achievements. As in our study, the authors of this research work focus on the correlation between tolerance for ambiguity and a person's ability to perform complex professional tasks, to respond to risks adequately (O'Connor et al., 2017). The results of our research have proven, that it is necessary for the individual to consider uncertain and ambiguous situations as opportunities for professional growth, learning new things, relevant to the scientific results

of empirical research on the impact of creativity on activities in critical situations. This study has confirmed that an unstable environment provides many opportunities for entrepreneurship and reduces the level of perceived risk (Cameron et al., 2018). The main study, different from ours, is the scientific research, which proves that the focus on innovations and creativity of staff is an alternative to any other investment and prerogative in human capital management, confirms the correlation between employees' creativity and company's productivity in general, between employees' creativity and their level of well-being (Miao & Cao, 2019). The peculiarities, identified in our study, can become the basis for the development of correctional, training programs for the representatives of various areas of work. The effectiveness of such work was confirmed in the study, the training program of which provided an opportunity to develop readiness for changes and tolerance for ambiguity in managers of organizations (Dobina et al., 2019).

The similarity of a number of scientific investigations with our study consists in the confirmation of the relationship between the creativity of the employee's personality and his/her tolerance for ambiguity, propensity for risk, the positive impact of the employees' creativity on the productivity of their professional activities. However, in most similar studies the main emphasis is placed on target groups of students of different specialties, teachers, on the problems of the educational sphere in times of crisis and under conditions of uncertainty. The main difference between the concept of our study and the similar ones is in establishing correlations between the type of professional activity and creativity, readiness for changes and tolerance for ambiguity in the period of social constraints caused by the global pandemic.

## **6. Conclusions**

The undertaken study has raised the issue of forming and improving creativity, readiness for changes and tolerance for ambiguity in representatives of various profession under crisis conditions, motivated by the impact of the above-mentioned constructs on the psychological health of individuals and their productivity.

The results of this scientific research allowed to confirm the hypothesis that creativity, readiness for changes and tolerance for ambiguity contribute to increased productivity, make the individual more susceptible to innovations, facilitate the formation of non-standard ideas; under the conditions of social restrictions, caused by the worldwide pandemic, creativity, readiness for changes and tolerance for ambiguity are manifested



in the representatives of different professions in different ways. The nature of the work helps to modulate the manifestations of creativity, readiness for changes and tolerance for ambiguity.

The study has found clear correlations between: the ease of performing professional tasks and adaptability, common sense, attitude to novelty and uncertainty; flexibility, common sense and attitude to novelty; originality and common sense and attitude to novelty; curiosity, adaptability and common sense; complexity, common sense, tolerance for ambiguity and uncertainty; propensity for risk, optimism, novelty and uncertainty.

The obtained empirical data made it possible to form an author's model of the personality of a specialist who works under conditions of change and ambiguity, who must be endowed with originality, adaptability, optimism and common sense.

It has been empirically established that the most creative under crisis conditions are IT-specialists, the workers of the event-sphere, restaurant business, trade industry are moderately creative; tourism workers are least prone to creativity. Employees of the IT and event industries have a high level of readiness for changes in crisis situations. Moderate susceptibility to changes is shown by the personnel of tourism, restaurant business, trade spheres, while event-specialists showed low readiness for changes. Trade workers have the highest rate of tolerance for ambiguity, employees of restaurant business and IT industry showed the moderate level of tolerance for ambiguity. Event specialists and tourism workers turned out to be intolerant for ambiguity.

Empirically obtained results of the study can be used by practical psychologists, crisis managers in order to develop correctional programs aimed at increasing the level of creativity and forming the staff's readiness for desired and unexpected changes in their professional activities, developing resilient, adequate and positive attitude of workers to ambiguity and uncertainty under the conditions of socio-economic, political and other destructions.

The prospects for further research in this area are the search, development, testing and implementation of effective psycho-correctional programs for the representatives of various types of professional activities for the formation of creativity, readiness for changes and tolerance for ambiguity. An important step is also the selection of tools and instruments for the implementation of psychocorrection programs, taking into account total digitalization, which stresses the need to develop such forms of psychocorrection, which can be implemented both in direct contact and using modern digital tools.

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