IS IT POSSIBLE AND FEASIBLE FOR TECHNOLOGY-BASED INTERVENTIONS TO ENHANCE THE MANAGEMENT OF LIFE TASKS?

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Abstract

With its emergence as a science, psychology has taken on the task of addressing a multitude of questions. One of them was what are the main issues that each person faces in the course of their life cycle. Alfred Adler in the early 20th century gave his answer to this question and started a "scientific debate" that lasted for several decades. By suggesting different arguments and perspectives, scientists debated and expanded Adler's proposals until they came to a "scientific consensus" that man's basic life tasks are related to the need to know who one is, what potential one came into this world with, and how to develop that potential in a good way and for the good in relation to oneself, others, and the society as a whole.

Researchers found an agreement that life task solving begins at birth and continues throughout all stages of human life. However, one of the stages in particular is mainly focused on these tasks.

Unfortunately, current conclusions regarding the factors that influence the quality of adolescent development consistently reveal limited and poor quality interactions between adolescents and their families, as well as schools' prevailing emphasis primarily on the cognitive aspects of development. Such observations culminate in the conclusion that adolescents today are deprived of sufficient environmental conditions to successfully develop the skills to manage their life tasks.

In the 21st century, when technology-based interventions have actively entered our lives to remedy many of the deficiencies that modern lifestyles have created and consecuently have shown good results in contributing to human health and development, the question has arisen - Can they be a great assistant in developing life task-solving skills as well?

In seeking an answer to that question, a mobile application called MyGoal was developed at the Department of Social and Legal Sciences, Technical University of Varna, Bulgaria. The app strives to provide stimulation of cognitive processes that are being used in solving life tasks. Utilized by an experimental group of students, within 1 month, the application led the participants to the subjective perception of an improved process of planning and execution of tasks.

Key Words: Life tasks, cognitive development, social development, emotionall development, technology-based interventions

Introduction

According to Alfred Adler, each person is faced with 3 main life tasks from which all the other tasks of their life derive and are connected to - to find a position among friends and develop the ability to cooperate, to understand that the continuation and tolerance of humanity depends on our love life and to find a profession that will allow them to survive. In the resolution of these three tasks of life, according to him, lies the resolution of all the other life tasks [1].

According to Adler, we are not born with an innate ability to solve life's tasks. In the course of our interaction with the world, we develop the ability to make this happen. The development of the ability to solve life's three basic tasks begins at birth and is greatly

influenced by early experiences in communication, which unfortunately often do not provide the necessary conditions for development in the best way possible.

The developed attitude towards problems and the tasks they pose to the individual determines the meaningfulness of one's existence. Devotion to society, relationship with others and love are life tasks of every person, the solution of which is essential for his development. Moreover, the complete knowledge of man, according to Adler, is gained by knowing the structure of life's problems and the tasks one faces, as well as the way one proceeds with one's tasks [1].

In this way, in the 1930s, Alfred Adler raised the question of the basic life tasks that each person has to face and opened a debate that lasted for several decades.

Life tasks

There are three categories into which Adler believes all the problems a person faces fall. According to the first, problems create reality for man. They are those that put to the test and manifest man. Humans must seek solutions and evolve under the constraints and opportunities within which they exist and remember that they belong to humanity and are bound to the earth and to all the advantages and disadvantages that their position brings.The second category is related to the fact that man is surrounded by others around him with whom he lives in association and without whom he would perish. The third category is related to the fact that we exist in two sexes and that the preservation of individual and group life is related to this fact [2]. All other questions of life can be subjected to these three basic problems [3]. This is why Adler defines the resolution of these important questions as life tasks, assigning them to the individual, persuading them that their resolution is important both for the manifestation and meaningfulness of the person's existence and their well-being among others. According to Adler, if a person succeeds in building friendly relations with other people and contributing to them by the usefulness of one's deeds, work, and happy marriage, one will never feel inferior to others and fall victim to neurosis [2]. In 1950, in his work Adler's Place In Psychology, Way discussed Adler's ideas about the three basic tasks of life, but assumed that it was possible that despite solving the three tasks, a person could turn out to be neurotic if they had not yet succeeded in realizing their own subjective notion of perfection [4]. Way introduces the idea of an evolving subjective notion of a goal over the course of one's life, toward which one strives and in the fulfillment of which one achieves life satisfaction and health. This subjective notion holds a very important place in the mind of the individual. Therefore, the individual sets before themself, additional tasks related to its achievement.

This subjective perception can become so significant as to shape an individual's overall perception of self, influence self-esteem, and, despite fulfilling Adler's three life tasks, end up shattered and ruined if they have failed to achieve those inner perceptions that lead to their subjective perception of perfection.Whether or not this is the case, what the origins and content of these subjective notions are, and whether achieving them actually leads to well-being and health is a question that has been pondered in thousands of therapeutic cases over the past 70 years. In these, he finds both confirmations and many justifications for rejection, especially in cases where the subjective notions result from early traumas, negative educational influences, and subjective distortions of reality. However, Way's notion of the additional tasks one sets oneself in order to realize subjective notions of well-being is confirmed. Nevertheless, the notion that they will necessarily lead to well-being is not confirmed.

Relying on Adler's ideas, Way's emphasis on the individual's subjective notions of success and well-being, and Wolfe's [5] and Neufeld's [6] ideas about one's duty to oneself, and the need to understand and realize oneself, Dreikurs and Mosak suggest that two more

tasks should be added to Adler's three. The first, which they call the fourth life task, is for man to learn how to get along with himself and how to deal with himself [7]. The second task they both propose and call the fifth life task derives from Adler's view, which they develop, that we do not simply live on this earth and that our existence and what we do extends the life experience of the whole universe. This makes it necessary for us to consider what our place on earth in relation to the universe and eternity actually is. This, Dreikurs and Mosak [7] add, is no easy task, given the dynamic nature of how we view the universe and all the beliefs we have associated with it. This dynamic makes it difficult to develop a sustainable understanding of one's place and role to the whole, making it feasible to discover the meaning of life and realize the significance of one's existence only through a constant spiritual quest.

It was during the same period in the development of psychological knowledge, in 1947, in his work Men For Himself, Erich Fromm described his idea that man's purpose is to be himself. His main task, according to Fromm, is to become who he is, and the most important product of his efforts is related to his own personality. Man has the task of knowing himself, Fromm says, and the possibilities of his nature for goodness and productivity [8].

One of the prominent researchers of adolescence, Eric Erickson, draws our attention to the fact that there is a period in one's life cycle that is particularly concentrated on the need to know oneself, the potential that one brings and the direction in which one would like to direct it. Although from the earliest stages of development, this notion is in a process of development, in the period of adolescence, interest in it becomes stronger. At this stage of his development, man is directed to all the means by which he could discover the answer to several questions - Who am I? What is my potential? Where do I want to channel it, in all areas of its manifestation - in terms of self, partnership, love, friendship, society, career and professional development, interests and beliefs, etc? The concentration on this important set of questions, turns attention so strongly that it becomes an organizer of events, participation in trials and experiments, exploration of different roles, behaviors and relationships. The purpose of this process of inquiry is to discover those manifestations of oneself in which one can recognize oneself, and to discover those directions one wants to take in order to unleash that which one feels full of. According to Erikson, a person's life task during adolescence and emerging adulthood is to decide who they are and what they want to be as an adult. When he decides this question, according to Erikson, he will develop a stable identity. If he fails, he will develop a negative identity, role confusion, and social isolation [9].

Whether or not the adolescent succeeds or fails in these life tasks depends on a multitude of factors, but most importantly on whether the conditions provide the necessary environment for the demand to take place or impose upon the adolescent the requirement to meet their needs. Depending on what happens, it will be determined how the other stages of life unfold. For some, life tasks will be successfully resolved so that they continue their development in the next stages. For others, the process of identity formation will continue throughout the years of young adulthood [10]. For others, the process may not take place.

Development of life problem-solving skills

In early and middle childhood, a person's development is closely linked to the abilities and qualities, views and understandings of adults, and the ways in which they relate to him. Middle childhood reinforces the role of authorities external to the family to place before adolescents the idea of the multifaceted nature of phenomena, the existence of different conceptions of their nature, and the fact that they all achieve different levels of truthfulness. This new perspective makes it possible to evoke a sense of similarity between one's own views and some of the views that adolescents learn and that they may not have known from their family until now. A sense of congruence of one's own views with those of someone else reinforces confidence in them, and gives courage to affirm and follow them. The need for

affirmation of views is a need for affirmation of self. In the period of adolescence, in contrast to previous periods of development, the differentiation of the environment from the adolescent's views reduces its suppressive effect to create the confidence to differentiate and assert. The similarity of views to those of someone else provides a reason for joining and for following, for imitation, for a desire to belong.

Many researchers of the life cycle prove that at every stage of it, a person is in process. This process ensures their development, which will eventually come to an end in late adulthood. By then, a number of factors will influence the way a person perceives themselves, others and the world around them. This will make the process of life problem solving dynamic.

Some authors share the understanding that not all life cycle stages are equally relevant to this whole process. Most often in the literature we witness notions of the foundational role of early childhood events and the extraordinary essential role of adolescence, which has expanded its scope considerably in recent decades.

When we talk about early childhood and its events, we are aware that the main role in a person's development is played by the capabilities of the parents, circumstances and early events, mainly concentrated in the family. As one grows older, however, the circle of actors in one's development expands. It gradually includes peers and their families, preschool teachers, sports coaches, art teachers, school teachers, guidance counselors, social workers and many others. Through its various representatives, society occupies its special place in individual development and influences the formation of views that later on in life will be implicated in the resolution of life's tasks.

Although seemingly in the period of adolescence, the adolescent solves "mundane" questions of their everyday life, each of them, according to cognitivists, turns out to be part of the general process of development of abilities to solve the fundamental life tasks.

Contemporary understandings of the specific features of the cognitive and social development during adolescence and their relation to the development of the ability to manage life tasks

In order to understand how the adolescent develops their life problem-solving abilities during adolescence, there is a need to understand what are the features of cognitive and social development at this important stage of development.

Over the past century, Jean Piaget and Erik Erikson have laid the foundations for widespread and deeply studied notions of the complex stages of cognitive meaning-making during adolescence. Respect for these remarkable scholars is evident in their presence in the curricula of almost all universities in Europe where human development is studied. The widespread knowledge of their theories makes it possible to share here our sincere adherence to their understandings without dwelling on them, in order to draw attention to the new knowledge with which the 21st century is enriching our comprehension

In contrast to all previous stages of the search for an explanation of how humans think, the 21st century is witnessing a relatively new and strongly growing approach to the search for the answer. This approach involves the use of non-invasive brain imaging techniques and particularly those of magnetic resonance imaging. This new approach to the study of structural brain maturation during adolescence has greatly facilitated the understanding of cognitive and social development, especially that of so-called executive functions. We now know that it initiates a qualitative change in the nature of thinking, making the adolescent more self-aware and self-reflective, able to hold more multidimensional concepts in his or her mind, and developing the ability to think in a strategic manner [11].

Today, scientists identify two neurodevelopmental processes as key during adolescence. The first involves significant change and maturation in the prefrontal cortex

regions involved in executive functioning and cognitive and impulse control abilities [12] [13]. The second process is associated with enhanced connectivity between cortical (i.e., external) and subcortical (i.e., internal) brain regions and age-related hormonal changes in neural activity and structure [14], [15], [16], [17]. This means that brain regions that provide planning and decision making develop significantly during this period of life.

Executive functions are cognitive skills critical to the overall development of the individual. They are high-order cognitive abilities important for goal-directed behavior [18], the ability to control thoughts and actions in order to achieve goals [12]; abilities that enable the control and coordination of thoughts and behavior. Executive functions include selective attention, decision-making, ability to filter out unimportant information, ability to perform multiple tasks simultaneously, store information in working memory, and suppress reactions. Each of these executive functions plays an important role in cognitive control and retention in the mind in the performance of the set goal.

As the brain matures, during adolescence, prospective memory also undergoes development. Prospective memory is related to the ability to hold in the mind the intention to perform an action in the future. Its development leads to an improvement in the effectiveness of the strategies that adolescents use in solving their tasks. During adolescence, the ability to self-regulate, which is directly related to the ability to plan, working memory, impulse control and decision-making, also undergoes intensive development.

In the period of adolescence, attention becomes selective, it is oriented towards important, significant events and tasks. The evaluation of the significance of the event is based on personal reflections and the resulting beliefs of significance. Cognition is increased while the processes of information storage, retrieval, and processing are simultaneously developed and refined. The capacity for self-monitoring, evaluation and self-regulation improves. The speed of thinking and the ability to process incoming information increase.

A number of scholars have claimed that executive functions developed during adolescence and all the processes that underlie their functioning remain relatively stable during subsequent developmental stages and occupy a central place in effective everyday functioning [19], [20]. Research has shown that the development of executive functions is tied to the progress and development of both other developmentally important processes and skills and the development of the same executive functions during early adulthood. De Luca et al. demonstrate that the ability to strategically plan and organize goal-directed behavior reaches its highest values between the ages of 20 and 29, but is also directly attributable to and associated with improved levels of short-term memory during adolescence [21]. Enhanced development of these functions during adolescence predicts a delay (beyond age 70) in the decline of cognitive flexibility [22] and, consequently, longer preservation of the ability to plan and solve life tasks successfully. According to Crone et al. (2017), executive function training increases connections between relevant brain regions, leading to more efficient processing well into later life stages [23].

Adolescents go through a developmental period characterized by intense neural development and hormonal changes [24]. [25] and enhanced social development [11]. The interconnectedness of physical and social development implies that intense physical development predicts intense social development, as well as an ongoing interconnectedness between the two areas. Thus, understanding this relationship, and which factors influence its positive realization, is crucial.

Ochsner (2004) and Frith and Frith (2003) have argued that the prefrontal lobes, in addition to being involved in the development of executive functions, are also involved in the development of self-awareness during adolescence, as well as in the development of adolescents' ability to understand the thoughts and ideas of others [26], [27]. According to Blakemore and Choudhury [11], the structural development of the prefrontal cortex of

adolescents in the face of a changing hormonal environment affects the neural circuits involved and especially the ability to recognize one's own emotions and those of others.

Recognizing the emotions of others is an important element of being able to understand oneself during adolescence. Therefore, attention is so strongly focused on this issue. If one of life's important tasks is related to knowing oneself, and adolescence is a period in which this understanding is related to others, then this relatedness turns out to be an impulse toward developing the ability to understand exactly what is going on in them, what they are thinking, and especially what they are thinking about us. Thus, the life-task associated with the ability to understand others also finds its powerful momentum. The need for positive evaluation does not satisfy the adolescent with his ability to state what others think. The need for positive appraisal drives the adolescent to search for what determines the thinking of others and how that thinking can be affected. Understanding the factors that influence the perceptions of others enables adolescents to influence the process of their formation. Adolescents are interested in this kind of opportunity because they already know that they can influence others' perceptions and change their attitudes about themselves.

The focus in understanding the emotional and social development of adolescence has, for years, been primarily on identity development - considered one of the most important developmental tasks in this period of life. Identity, tied to the need for self-determination, is dependent on two processes - one is adolescents' ability to understand themselves, and the other is their ability to understand others. Eric Erickson, known for his theory of psychosocial development says that some of the most essential questions at this stage of human development is the search for the answer to the question - Who am I? Where am I going?" is the other question that sets the stage for the adolescent to begin what many researchers would describe as a search for meaning under the pressure of the person's sense of fulfilling their potential.

By asking themselves these questions, adolescents spend several years of life pursuing their answers. In order to find them, they will try to find out what are those qualities of theirs that define them as they are and set them apart from others so as to make them unique. In their search, adolescents use all the accumulated experience, the evaluations they have received from others about themselves, their personal beliefs and values, the goals they feel they want to achieve [9].

Identity or the search for an answer to the question - Who am I? - occupies an important place in the mental world of adolescents and determines the dominant part of their life experiences at this stage. Their thinking changes, and the goals that adolescents set for themselves enhance the goal-setting process, loading it with a previously undeveloped multidimensionality.

Who they are and what they want to do becomes not only the pivotal question of their existence, but the center around which they orient all their actions. The planning of their lives that often becomes a projection of their parents breaks the boundaries of parental constraints in order to seek out the manifestations of those inner drives that adolescents sense as inherent in themselves. And the greater the gaps between their sensations and their parents' projections, the greater the adolescents' resistances to following the "paths they have mapped out." The projection of life, which adolescents feel more than ever to be their task, displaces childish conformity and makes room for the adolescent drive for autonomy.

The research of John Bowlby and Mary Ainsworth put a convincing end to the idea that deprived of the closeness of their parents, in conditions of emotional deprivation, cognitive development can flourish. A 2012 study shows the same, to the development of children raised in institutions. Developmental delays affect more than one area of a child's development [28]. Thus they set the debate about quality caregiving on the stage of "social workers" who today are still searching for a way John Bowlby to qualitatively assess parental

capacity. Understood so far as the qualities available to the parent to provide the necessary conditions for the proper development of the child in all its aspects, parental capacity has proved to be frequently measured in those cases where social workers have "deep" doubts that the parent possesses it.

Apart from cases handled by social services, a number of teachers and guidance counselors report problems with the children they teach. In the overwhelming majority of cases, they criticize the conditions created by the parents as the sole reasons for the deviations they record.

The recording of such facts begs the question - If so often today we say that parents do not understand child development, do not have time for their children, are poor role models themselves, or their emotional immaturity makes them poor educators, then is there a way in which their role can be supplemented or safely assisted by technology?

The search for an answer to this question took two directions. One direction has been the search for opportunities to enhance parenting capacity. But it has only been successful in those cases where parents want it and social services provide such courses, or where social services, with their mechanisms, make it compulsory. In other cases, convinced of their right to educate their children as they wish and questioning the assessments that they do not have the necessary knowledge and skills to do so, parents distance themselves from such suggestions.

The other direction of development is one of expanding opportunities, of providing appropriate conditions for development in other ways. One of these appears to be mobile apps.

An overview of the use of mobile apps implementing interventions in different areas of adolescent development

Research on the effectiveness and efficacy of existing mobile physical activity apps in adolescents aged 12 to 18 years to support medical and public health practice suggest that eHealth can change adolescents' health behaviors, but there is mixed evidence on the effectiveness of physical activity apps as there are no findings on app quality and compliance with exercise or training guidelines Lee et al. [29]. Kankanhalli, Atreyi, Jieun Shin, and Hyelim Oh [30] argue that mobile interventions linked to users' diets can lead to weight loss, diet management, or overall health promotion. Chen et al. [31] found that traditional one-on-one or group counseling is costly and time-consuming, providing limited counseling time, in contrast, mobile phone-based interventions have great potential to reduce the obesity epidemic and can be used as a valuable resource to support both patients and medical professionals.

Research has shown that adolescents who use mobile interventions have increased physical activity and fruit and vegetable consumption; reduced blood pressure and time spent in front of the television and computer; reduced consumption of carbonated and sweetened beverages; and increased self-efficacy with regard to physical activity and diet. We have seen that eHealth apps show great potential for engaging and increasing adolescents' access to sexual and reproductive health information and reducing unintended pregnancy rates. Many studies have shown young people's perspectives on the use of digital technology in sexual health education and their preference to use educational resources that are accessible, reliable and offer privacy. We have seen that the use of communication technologies and mobile devices among young people provides options for behavioral intervention, and many problematic behaviors can be remediated through them.

Mobile technologies have the potential to engage adolescents across a variety of socio-demographic characteristics [32] and can lead to behavior change and improved health outcomes according to Ippoliti and L'Engle [33]. Applications for mHealth show great

potential for engaging and increasing access to sexual and reproductive health information for adolescents across age groups [34], [35] and reducing pregnancy rates according to Chernick [36].

L'Engle et al. (2016) assess the quality of evidence on mobile phone use by adolescents aged 10 to 24 years to improve adolescent sexual and reproductive health (ASRH). A systematic search of publications from January 2000 to August 2014 was conducted. L'Engle et al. (2016) argue that the inclusion of text messaging in health promotion campaigns, screening and tracking for sexually transmitted infections, and medication adherence can lead to improved adolescent sexual and reproductive health (ASRH) [37].

According to Benvenuti [38], digital applications have a profound impact on the health, well-being and cognitive development of adolescents. Born into a world of technology, they learn and adopt technology from an early age, and as a result, they think and process information in fundamentally different ways than their predecessors. Digital health interventions can support symptoms of anxiety and depression through cognitive behavioral therapy and are much more preferred than face-to-face contact. They can positively support the changes occurring at this age and offer developmental, interpersonal relationships, both at the family and peer level. According to Khasawneh [34], the use of mobile applications can improve organization and time management skills among students. Rocque [39] demonstrates that mobile technology has a positive impact on classroom performance and can be an effective tool to promote creativity, learning and development in a variety of settings, both formal and informal. Mobile applications are more effective in promoting holistic learning and increasing the speed of learning as opposed to traditional teaching methods.

Today, technology-based interventions have entered all areas of adolescent life. E-health and apps for health management, nutrition, exercise, are becoming increasingly popular. Adolescents are using apps to manage their fitness or regulate their nutrition, their relationships, to advance their hobbies. Suggested by parents early in life, these "professionally created helpers" and perfectly targeted to actual needs substitutes for parents, are becoming increasingly popular among adolescents.

The use of digital applications has a profound impact on the health, well-being and cognitive development of adolescents. We have seen that digital health interventions can support symptoms of anxiety and depression through cognitive behavioral therapy. They can support the changes occurring at this age and offer developmental, interpersonal relationships, both at the family and peer level. Studies show that apps can improve adolescents' social skills, and the frequency of their use can improve organization and time management skills among students. Research has shown that mobile technology has a positive impact on the performance in class and can be an effective tool for fostering creativity, learning, and development in a variety of settings, both formal and informal. Mobile apps are more effective in promoting holistic learning and increasing the speed of learning as opposed to traditional teaching methods.

A theoretical framework of a mobile application to stimulate executive functions and the ability to manage life tasks.

All of the above gives us reason to believe that technology-based interventions targeting different aspects in adolescent development have the ability to provide vocationally directed stimuli to age-appropriate developmental tasks; to stimulate cognitive processes, and to promote social and emotional development. Influenced successfully in their totality, these processes can help develop the ability to manage life tasks. At this stage, research shows that no application has been developed aimed at stimulating the skill of managing life tasks. Apps

have been developed that focus on personal development, goal formulation and achievement, but no app has been developed to stimulate life task management skills. Understanding the importance and implications of this skill for adolescence and all subsequent stages of the life cycle, the Department of Social and Legal Sciences of the Technical University of Varna, Bulgaria, has attempted to develop such an application.

The development of a life task management stimulation application has the ambitious goal of providing an environment to encourage, train and stimulate the cognitive processes that underlie the ability to successfully manage basic life tasks. It aims to pose the questions to adolescents - What am I aiming for? Where am I headed?" and "Where do I want to go?", independently and to provide a space of self-exploration, experimentation, experimentation, evaluation and self-reflection of one's own views. Given a developmental environment that is free from the subjective evaluations of others and the influences of the environment, these skills can find an appropriate environment to develop their inherent potential.

In designing an application to stimulate the ability to manage life tasks, the complex goal approach proposed by Stephen Covey and Sean Covey was employed. Their idea of stimulating proactive behavior, which according to Covey and Covey, will lead to higher efficiency of decision making, is borrowed. In the application, proactive behavior is stimulated by encouraging the use of multiple trials to achieve desired outcomes, the need to test combinations of variables, the drive to confirm or reject assumptions, assumptions, inferences and hypotheses. In order to implement this process, incentives are embedded in the app to encourage adolescents to be active and to encourage them to plan different tasks or different activities to achieve the goals of the set tasks.

Secondly, from the complex approach of Covey and Covey, the concept of goal setting and the need to develop the skill of formulating goals and objectives and actively seeking a path to their realization is used. By requiring adolescents to set goals, the app encourages their formulation, writing and visualization.

According to Covey, goal formulation is about the ability to see possibilities and imagine worlds we can create. If this is so, it means that by requiring adolescents to articulate their goals and objectives, we will also stimulate their ability to dream and imagine the goals they would like to achieve. As they draw such goals from their minds, adolescents will develop their abilities to look into themselves, to feel their needs, to try to bring out and formulate those manifestations of themselves of which they believe themselves to be bearers. This process will provide a powerful stimulus for shaping the content of their life tasks, which, as Adler and Fromm say, are related to those manifestations of ourselves that we will claim, through our activities as well as our actions, for others and the society to which we belong.

Formulating a purpose, according to Covey, is also related to the ability to discover our own uniqueness and personality, to discover our own individual talents. If an application that stimulates the identification of personal goals and objectives by seeking ways to achieve them manifests uniqueness, then this seemingly ordinary activity, through a few seemingly ordinary elicitation and formulation techniques, will also positively influence adolescent identity development.

The app enables adolescents to track the effectiveness of actions on the path of the goals they have set themselves, to discover in which cases and why they succeed and in which cases and why they cannot bring their goals to successful progress. Visualized, the process will support self-reflection and identification of strengths and potential. This leads to the generation of future solutions with greater effectiveness and refinement of the goal setting process.

Prioritization, another key development process, according to Covey, must become a habit to achieve high performance. To make it happen, the adolescent must go through a

process of making sense of the importance of his goals, deriving arguments for positioning tasks in particular places, focusing attention on those identified as primary, and abstracting and withdrawing from the undesirable and unnecessary. Practiced repeatedly through a variety of goals and tasks, these complex processes build skills, the refinement of which enhances the effectiveness of life task management skills. The app arranges goals and tasks according to the timing of their assignment, but to develop the prioritization process, and all of its related tasks, adolescents are asked to color each goal or task according to its importance. This directs his attention to the prioritization process. Happening repeatedly with newly formulated goals, the coloring requirement sets the stage for the development of a prioritization habit.

To stimulate focusing and abstracting abilities, the app uses Cal Newport's approaches to create a rhythm for doing in-depth work without wasting unnecessary energy deciding when to get it done.

James Clear's idea that the best way to track progress is to use visual markers was also implemented in the creation of the app. As mentioned above, tracking progress stimulates self-reflection. However, according to Clear, if it is visualized, it will help build the habit of persistence in a planned activity. To stimulate progress, to create better conditions for self-reflection, a calendar has been created in the app where the adolescent can visually track their progress in relation to each goal.

In developing the app, Clear's idea of a visual representation of a report of completed activities was also adopted, which he believes has an additional impact on motivation. By checking off or crossing off a task from the list, the app visualizes task completion to provide a sense of satisfaction and increase motivation, to stimulate and improve goal-directedness, and to keep attention focused on the process (which is in development during adolescence) rather than the outcome itself. Clear comes to the conclusion that debriefing achieves twice as many accomplished results as if it were not done and adds that the longer it is used, the more is learned. The mobile app also uses Clear's suggestion that reporting should be automated so that the data collected can be used to analyze performance over a week or month.

The idea of not breaking the chain of actions in the course of task execution is also adopted from Clear. The app allows adolescents to track their breaks. According to Clear, occasional breaks don't have much impact on the success of our actions, but their repeated repetition turns them into habits with negative consequences on the set tasks.

The next approach used in creating an app to stimulate the ability to manage life tasks is the Pomodoro technique to achieve better concentration. This technique is provided as functionality for any created task that is part of a set goal or for any independent task alone that is not part of a goal.

Another approach that will be incorporated into the app and through which a time frame will be set to help make the goal measurable is an approach that promotes the skill of SMART goal setting. SMART goal setting is the foundation of creating a goal in the app.

The expectation for the so developed application is that by using key aspects of the selected theoretical frameworks and applying them in a mobile application developed as a technology-based intervention, important cognitive and social aspects of development during adolescence will be stimulated. Ability to formulate goals and objectives; Ability to plan and make decisions; Ability to control thoughts and actions; Enhance selective attention; Ability to filter out unimportant information; Ability to perform multiple tasks simultaneously; Ability to hold in mind the intention to perform an action in the future; Ability to self-regulate; The ability to plan, Control of impulsivity; Self-definition and development of identity and overall self-concept; Ability to develop intuitive processes; Identify embedded potential and recognize its manifestations; Analyze reasons for success and failure; Striving to cope independently with set tasks; Abilities to try, test repeatedly combinations of variables;

Ability to confirm or reject assumptions, assumptions, inferences and hypotheses; Ability to evaluate the effectiveness of actions; Ability to implement alternative solutions.

All of these skills and abilities, part of the executive functions undergoing accelerated growth during adolescence, underlie the solution of the basic life tasks that life confronts the adolescent and on the solution of which his or her overall later well-being depends.

The importance of this fact underlies the motivation to create an application that will support the proper development and successful refinement of these processes and assist individuals in achieving the highest possible levels of well-being through adulthood to the end of their life cycle.

Results from the experiment

The developed application was used by an experimental group of students within 1 month. After 1 month, a survey was conducted with the experimental participants to determine their subjective perception of change in their task solving ability. The results showed that the study participants perceived improvement.

If theorists argue that an improved level of life-task management skill development during adolescence leads to a higher level of well-being during other stages of the human development, then we hypothesize that if a technology-based intervention leads to an improvement in this skill, it will have the ability to influence well-being later on.

We cannot yet prove this as the MyGoal app was developed in 2024. But at this stage we have evidence of its short-term effects.

Discussion

The developed application called MuGoal is the first of its kind. Many other apps stimulate individual cognitive processes, but MuGoal has attempted to bring together processes that, when stimulated daily, will in the long term lead to the development of more important abilities to manage life tasks.

Great scholars such as Adler and Fromm, and a great number of followers of their ideas, showed how essential part of our development is our awareness of self, our ability to relate to ourselves and others, to lend our abilities and activities to the society in which we were created. Achieving these complex processes goes through everyday events and situations that put many of our qualities and abilities to the test. Although many of these seem to be small, mundane details of our daily lives, they provide the overall process of our development.

We are aware that we live in a time of distant relationships between partners, children and parents, and most parents hope that educational institutions would ensure what is needed for our overall development. But their focus on cognitive development may not always provide sufficient resources for emotional and social development - for analyzing and interpreting events, emotions, relationships, developing planning skills, goal setting, learning coping strategies, etc.

If distant links between children and parents cannot provide this, then we hope that technology-based interventions designed for people's well-being will prove to be good helpers. Of course, they won't be able to provide the stimulation that a family environment could, and we know that. But we hope it can be a good substitute.

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