IMPROVING CREATIVE THINKING SKILLS THROUGH BEHAVIORAL RECONSTRUCTION THERAPY

Meisie Lenny Mangantes
Universitas Negeri Manado, Minahasa, Indonesia
meisiemangantes@unima.ac.id

ABSTRACT
This paper was written with the aim to describe how counselors construct the behavior of counsellors who have symptoms of low learning motivation so as to increase their creative thinking skill. The technique to be used is true experiment with cognitive behavior counseling treatment approach for experimental group and interactive learning for control group. The use of cognitive behavior counseling aims to encourage counsellors in manipulating, managing and deforming information in their memory, so that counselors can easily form concepts, ways of reasoning and critical thinking, making decisions, in solving problems creatively. This research involves active counsellors who master the Techniques and approaches of behavioral cognitive counseling. The methods used in proving this research question will be discussed in the behavioral modification framework that the authors presented in 4 rounds of discussion. The first, the reduction and elimination of behavior; second, improved behavior through positive reinforcement and conditioned strengthening; third, create new behaviors through formation; Fourth, build behavioral resilience through strengthening schedules.

Keywords: Creative Thinking, Behavior Modification, Cognitive Behavior, Counseling Treatment

INTRODUCTION
Knowledge is a symbol of education. However, Albert Einstein further said that "imagination is more important than knowledge" (Osborn, 2011). The phenomenon of the industrial revolution 4.0 that is often talked about lately encourages people to always have high creativity in the digital age. Creative thinking is central to art, science, and everyday life (Beaty, Benedek, Silvia, & Schacter, 2016). Christian Natamado Simanullang in his talk at a major lecture at ITS Campus said that most people take various activities for granted, without knowing the purpose of the activity. According to him, every human being should take steps in thinking carefully about strategic steps in realizing and preparing all his wishes, one of which is by thinking critically, penetrating the boundaries of creative thinking and reasoning beyond the expectations of other human beings.
The importance of creativity in thinking is an issue that is currently being highlighted by the government and also the world of education. Even "creative imagination" seems to be ignored by educational practitioners. Perhaps teachers think that creativity is no different from general intelligence or that schools cannot or should not appreciate creativity, or perhaps they do not know how to teach creativity (Sternberg, 2003). Through Government Regulation No. 19 of 2005, the Government tries to affirm that learning in education units is held interactively, inspiring, fun, challenging, motivating students to actively participate in learning. This confirms that it takes a good learning design by the observer of the educational curriculum or teachers in the school to be able to accommodate the creativity owned by each student. In addition to education and school stakeholders, the role of a school counselor in providing guidance and counseling services in schools is also required. School counselors must be able to play a role in the reconstruction of students' learning habits in order to be able to provoke freedom, creativity of thinking and critical thinking skills of learners.

Creativity has a number of positive benefits (Plucker, Beghetto, & Dow, 2004), so there's a reason to improve it. Creativity is involved in workplace success (Goode, Dynes, & Tiemey, 1997; Torrance, 1972a), healthy psychological function (Davis, 1989; King & Pope, 1999; McCracken, 1991; Russ, 1998; Terr, 1992), and the maintenance of a love affair. Creativity is also appreciated for its potential contribution to society. For the most part, creativity is not just a matter of thinking in a certain way, but rather an attitude towards life (Field, 1996). Creative people are creative, mostly, because they've decided to be creative.

Human cognitive development, embodied through the work of the left brain and right brain, plays an important role in shaping human creative thinking abilities (Semiawan, 2010). However, creative thinking skills can be shaped by behaviors and habits that are habituated early on, namely by providing the right stimulus based on the goals to be achieved. To form the concept of creative thinking and critical thinking in solving problems, man must learn in manipulating, managing and deforming information obtained in his memory (Santrock, 2011). The main obstacle that man has in realizing his life goals is lazy in starting something as well as the behavior of procrastinating work or prokatinasi. Low motivation in starting an activity resulted in people losing their creativity.

One's thinking skills consist of four dimensions, namely: recall thinking, basic thinking, critical thinking, and creative thinking. Creative thinking is a concept in which a human reconstructs an original idea from an information he receives to be used as a new idea based on.
the perspective of a thinker. Creative thinking is not always a rational idea, creative thinking can be an irrational idea. Because the results of the idea of creative thinking is not always measured by reasoning, but by the originality of the results of the mind. An example is the result of creative thinking by a content creator or animator in cartoons and children's films.

The way of thinking is divided into two dimensions, namely convergent-divergent and cognitive-affective (Table 1). Cognitive thinking consists of critical thinking and creative thinking. While the affective way of thinking consists of caring thinking and hopeful thinking. If four ways of thinking are associated with each other, then creative thinking is similar in terms of cognitive with critical thinking and in other atura incorporated with hopeful thinking. Although creative thinking has cognitive-affective elements, but creative thinking uses more cognitive processes to process incoming information (Bacanli, Dombayci, Demir, & Tarhan, 2011a). Critical thinking can be attributed to creativity in conceptual, as well as empirical ways (Lipman, 2015). Creative thinking and critical thinking are also complementary components of the individual's cognitive thinking (Wechsler et al., 2018a). Creative thinking is indicated by eefasihan, elaboration, orisinality, and flexibility (Wechsler et al., 2018b). While critical thinking is indicated by variables deductive reasoning, inductive reasoning, practical reasoning, decision making, and problem solving (Wechsler et al., 2018b).

| Table 1. Two-dimensional way of thinking (Bacanli, Dombayci, Demir, & Tarhan, 2011b) |
|----------------------------------|----------------------------------|
| Cognitif                        | Convergent                       | Divergent                       |
| Affective                       | Critical thinking                | Creative thinking               |
| Caring thinking                 | Hopeful thinking                 |                                |

With various ways of thinking, individuals have the potential to be able to think freely. Free thinking is an individual's skill to create his own thoughts without being tied to the thoughts of authority or others. Basically every individual has the potential to think freely, one way of thinking freely is creative thinking. That potential will only be a memory if it is not developed and formed (Sternberg & Lubart, 2014). One of the environments that can develop creativity is the educational environment.

Each individual basically has creativity, but one's tendency and efforts to creativity depend a lot on the factors of self, environment and type of problems faced (Buntat, Sharliana, & Nasir, 2011). Creativity is the ability to produce works (Lubart, 2004; Sternberg & Lubart, 2014; Sternberg, O'Hara, & Lubart, 1997). High-level creativity requires critical thinking (Mohd Azhar, 2004). Graham Wallas sees the process of creativity divided into five stages:
preparation, brooding, hatching, enlightenment and insight (Lycan, 1963). Creativity is a form of creative thinking (Webster, 1990).

Creative thinking is a novel way of thinking that informs the initial ideas received from an information and can be observed clearly and has a long intensity (Newell, Shaw, & Simon, 2011). Creative thinking is a way of thinking for problem solving with different approaches. Creative thinking is based on the need for different points of view. Creative thinking sees what others see, but thinks differently (Welsh, 1977).

At the age of 7-11 years human beings are equipped with the ability to think logically about the events felt and seen in the surrounding environment. While at the age of 11 years-adolescent adults think more in a more abstract, logical and more idealistic way (Piaget, 1964). Based on piaget's cognitive development, cognitive is the most important aspect to shape the thinking ability of learners in the learning process. A school counselor who is responsible for providing guidance and counseling services at the primary and secondary school education unit level must have a deep understanding of the cognitive development of his students. With this understanding, counselors are expected to create innovative services in helping to complete the task of student development. One form of such services is the reconstruction of behavior towards students with low learning motivation to improve students' creative thinking power.

Behavior reconstruction or behavior modification is a way of changing human behavior by applying learning principles (Purwanta, 2014). Behavior modification is the application of learning processes or psychological principles of experimental results to human behavior (Weingarten, Verrilli, Pertschuk, Pomerleau, & Schneider, 1975). While Powers & Osborn (1976, in Edi Purwanta, 2012) gives the understanding that behavior modification is a systematic use of conditioner techniques in humans to produce changes in the frequency of certain social behaviors or actions to control the environment of such behavior. From this opinion, behavior reconstruction or behavior modification can be done using the technique of operand conditioner, namely, response, consequences, and stimulus conducted regularly and planned.

Behavioral modification adopts a cognitive behavior counseling therapy approach. Behavior as a result of the learning process is the product of behavior that results in learning goals. Behavior is something that can be observed and recorded by others who do not do it both teachers and other learners. However, behavior can also be categorized as a personal phenomenon of a person that cannot be observed directly by other people's glasses or hidden (Martin & Pear, 2008). Observable behavior of learners with low levels of learning motivation
can be demonstrated by passive behavior during lessons, never listening when the teacher describes the subjects, etc. While the behavior that cannot be observed directly is a phenomenon of thoughts or feelings felt by the perpetrator.

Low-learning motivational behavior is part of the over-behavior category, meaning it is too much and can be observed directly. In addition to excessive behavior, there is also behavior-deficit, which is too little behavior. Deficit behavior seems like a behavior that is rarely done by a person, but the effect remains and potentially encourages a person to get caught up in the habit of such behavior (Martin & Pear, 2008). Labeling students with low learning motivation has prompted research to find out how to address these problems. With the phenomenon that can be observed by everyone, students with adaptive behavior that makes it low learning motivation need to be given a self-improvement program. It aims to shape the desired and necessary behaviors to assist students in fulfilling their developmental tasks. Neatte used called behavior modification.

Behavior modification is a systematic effort, and planned to use principles and learning techniques to assess and improve one's behavior both observable and unobservable. There are seven main characteristics in behavior modification (Martin & Pear, 2008). First, the emphasis of problems that can be measured in a certain way as an indicator of problem solving; Second, behavior modification involves handling elements to change the current individual environment. The environment referred to in this paper is the learning environment, namely by creating an adaptive and innovative learning atmosphere; Third, behavior modification is an effort that can be described in detail and precisely. In this case the school counselor acts as a behavioral modifier of the student by using a cognitive behavior counseling approach; Fourth, Techniques in behavior modification can be directly applied by subjects or students who have problems in their daily lives.

Fifth, Behavior modification techniques use approaches that have been tested and developed based on in-depth research; Sixth, behavior modification must result in measurable and predictable behavior changes by a modifikator; Seventh, cooperate with all related stakeholders, in this case are subject teachers, school staff and school curriculum bodies in forming a good learning atmosphere. To find out how students' behavior needs to be modified, a counselor needs to assess the behavior using a behavioral assessment. In this case the behavioral assessment can be replaced with an assessment to measure the student's learning motivation level.
Behavioral assessments are used to assess measures of behavior that have or have not been modified. Before changing problematic behaviors, a counselor should first measure how low levels of learning motivation behavior students have, then compare them to behaviors after behavior modifications. This is intended to measure the level of development of the behavior that wants to be improved (target behavior) in the process of behavior modification that has been done. Behavioral assessment is the process of data collection and data analysis in order to identify and describe target behavior, identify existing behaviors, as consideration in choosing the right behavioral therapy, and evaluate the results of treatment (Martin & Pear, 2008).

The theory of behavioral counseling approach proves that the stimulus given to the individual can result in the formation of new habits in the individual, this approach is often referred to as pavlov classic conditioning. Pavlov's classic conditioning prompted a variety of other experimental studies in behavioral theory, which we now know as behavioral therapy or behavioral therapy. This behavioral therapy was later developed by B.F. Skinner with an approach called Operant Conditioning, in which the approach emphasized behavioral modification based on its consequences (Reinforcers and Punishers). Skinner's approach focuses on positive, negative and punitive reinforcement. Reinforcers are responses from the environment that increase the likelihood that the behavior can be repeated. This treatment is in the form of positive or negative reinforcement. While punishment (Punishers) is a response to the environment that allows to reduce the behavior that will be repeated. This treatment is a punishment for weakening unwanted behavior.

On the cognitive behavior approach, Albert Ellis considers that irrational thoughts can cause a person to have a variety of disturbing emotions. The approach Ellis developed focused on weakening irrational thoughts by reinforcing more rational self-assertions (Ellis, 1962). Thinking of dysfunction can lead to depression and other problems, strategies for recognizing maladaptive behavior by changing it to adaptive behavior is called cognitive therapy, which we now know by the term cognitive behavioral therapy (Beck, 1976). Behavioral cognitive therapy is not only effectively used to train a child's habits or overcome one's fear of something, more than that, behavioral cognitive therapy can also be applied to problems such as low one's confidence, depression, learning motivation, learning disorders, improving creative thinking skills and so on (Martin & Pear, 2008).

In cognitive behavioral therapy the role of counsellors is to instruct, especially in giving the task to the counsellor to think straight. While the counsellor plays a role in practicing the
skills that have been given by the counselor independently in daily life. Cognitive behavior allows individuals to change and modify behavior by itself. There are three important approaches in cognitive behavior therapy, the first is REBT (Albert Ellis), the second is Beck's cognitive therapy, and the third is cognitive behavioral modification (Meichenbaum).

The REBT counseling approach is based on the assumption that humans have the capacity to act in rational and irrational ways. Rational behavior is considered good, while irrational behavior is considered disruptive and inhibiting. Irrational behavior or irrational piker patterns according to Ellis result in emotional problems in humans. A man with irrational disorder has a false belief in himself. The REBT approach believes that every individual born has the potential to be rational but can also be irrational even though humans can understand, think and behave in a normal realm. REBT emphasizes therapy by using role playing, affirmation exercises, humor, operand conditioning and all the support that can help counsellors. REBT considers that the problems faced by the counsellor lies in the unrealistic, illogical, and self-destructive mind. Therapies that force counsellors to have logical, empirical and pragmatic thoughts are believed to be able to suppress irrational piker patterns of counselling. The REBT approach emphasizes the ABC aspect of influencing individual personalities. A is an ongoing event, B is a belief, C is an emotional and behavioral consequence of that event.

Aaron Beck's cognitive therapy is well known by the name of cognitive therapy has similarities to the REBT approach where both use an active, directive, time-bound, and structured approach (Beck, Rush, Shaw, & Emery, 1979). Cognitive therapy is an understanding that emphasizes the introduction and alteration of negative thoughts and wrong adaptive beliefs. Beck's approach is based on the way people feel and behave determined by how they structure the experience. Beck's basic theory emphasizes how individual cognition can suppress the response of events or plots that can produce anger (Beck, 1970). Cognitive therapy is based on the assumption that cognition is the main determinant of how we feel and do. Beck's cognitive therapy believes that pain in the psychological occurs when an individual adopts a wrong mindset in itself. To change this behavior, modification of the improper and malfunctioning way of mind is required (Beck, 1976; Weishaar & Beck, 1990).

Meichenbaum's cognitive behavioral modification counseling approach is essentially a form of cognitive reorganization or cognitive reconstruction of counsellors. The basic concept of cognitive behavior modification is that before a change in behavior occurs, the counsellor must be biased to know how he thinks, feels and behaves and knows the impact on society. In order
for a counselor to change, they must interrupt the express nature of their behavior so that they are biased to evaluate their behavior in various situations (Meichenbaum, 1977).

Beck’s approach to cognitive behavior modification, REBT and cognitive therapy have the same assumption, that problematic emotions are caused by maladaptive behavior. The fundamental difference of Meichenbaum’s theory with Ellis’s theory lies in the confrontations of irrational thinking, but Meichenbaum’s approach emphasizes counsellors in teaching themselves to become aware of words directed at themselves. The technique is to train counsellors in modifying the learning given to themselves so that they can handle the problems they face more effectively. The emphasis of the therapy is on training practical skills in dealing with problematic situations such as impulsive and aggressive behavior, fear of taking tests, and fear of talking to people. In Meichenbaum’s therapeutic approach, cognitive reconstruction played a major role in briefing the counselor to determine the direction of his mind (Meichenbaum, 1977b).

How does behavior change in Meichenbaum’s approach? Behavioral changes occur through a sequence of mediating processes that include internal word interactions, cognitive structures, and behavioral and resultant behavioral outcomes (Meichenbaum, 1977a). Phase 1: self-observation, learning in observing their own behavior. Counsellors are encouraged to reconstruct positive thoughts in their brains, so they find new ways of solving the problem. Phase 2: starting a new internal dialogue, as a consequence of the previous phase, the counselor is encouraged to discover the maladaptive behavior of himself which then provides an opportunity to look for alternative adaptive behaviors that will lead to the direction of behavioral, cognitive and affective changes. Phase 3: learning new skills, in this phase the counsellor is directed at learning skills in dealing with problems more effectively and can be practiced in real life. At the same time counsellors are encouraged to continue to focus on new behavior towards themselves and continue to be encouraged to evaluate about what they are doing. The consistency they get depends on what they have done to change his behavior as well as the consequences they get (Meichenbaum, 1977c).

METHOD

This research uses Quantitative approach with experimental research design(experiment). The design of this experimental research uses the group experiment design which uses cognitive behavior counseling treatment and group control using interactive learning methods. Treatment in the group control was done in a class group that had students with the highest percentage of
low learning motivation. While in determining the subjects of the experiment group, researchers tried to limit this study to students in other class groups who had low learning motivation. In other words, the selection of the subject of this study uses purposivesampling.

To find out if students have problems with their learning motivation, it is necessary to do the right assessment using the learning motivation assessment assessment. In addition, we can also make direct observations to see which students have a tendency to be inactive and lazy to listen to lessons. Co-author studies related to student learning outcomes can also be used as part of determining the subject of this study. The assessment results obtained are then used as a foothold to know which students need to be strengthened learning motivation.

Data collection techniques using learning motivation assessment questionnaires, student learning motivation observation guidelines, documentation studies of students’ learning outcomes, and assessment of creative thinking skills. While the data analysis technique uses nonparametric statistics t-test. This technique is used to test the coefficient of the average score on the student's learning motivation and creative thinking skills using a comparison of pre-test results against post-test (see figure 1.).

| Treatment Group | R | O1 | X | O2 |
|-----------------|---|----|---|----|
| Control Group   | R | O3 | C | O4 |

Figure 1. Design experiments with pratest-postest design with control group. Creswell (2012:310).

R : Subjek (Purposive Sampling)
X : Treatment (experimental treatment) cognitive behavior counseling
C : Interactive Learning Treatment
O : Measurement or observation of early pre-test and post-test (assessment of creative thinking skills and assessment questionnaires of learning motivation)
O1 : Pre-test the experimental group
O2 : Post-test on the experimental group
O3 : Pre-test the control group
O4 : Post-test on a control group

The first steps of treatment in the therapeutic approach used are the analysis of the student's psychiatric condition by using a cognitive behavior therapy approach related to his/her life view of the benefits of learning and the meaning of school for him. The condition is called identification of the response students have to him. From the response, the views that are believed to be wrong in students with low learning motivation levels are then improved using behavior therapy using the technique of operand conditioner in the second step.
Operant conditioner allows therapists / counselors to change the problematic behavior to be more meaningful, in this case students / counselors will be brought to have high learning motivation so that in the formation of new behaviors later counselors can be improved critical way of thinking. The weakness of this approach is that it takes so long, but it can effectively improve students' creative thinking skills over a long period of time. The operand conditioner technique allows students to repeat the same behavior when they get a positive response to the behavior they have (Martin & Pear, 2008) (see figure 2).

**RESULTS**

The results of the t-test using SPSS 23.0 showed that the pre-test obtained the average student's learning motivation of \( t = 2.544 \) with Sig. (2-tailed) of 0.012 with a probability value of 0.05 (5%). The significance score did not show differences in students' initial abilities in the control group with experimental clusters. The test results mean that students' learning motivation in the pre-test between the control group and the experimental group may represent the conditions for treatment.

After treatment in the form of interactive learning in the kontrol group, and cognitive behavior counseling treatment in the experimental group for 3 sessions. There were significant changes in both groups, which were indicated by an average increase in student learning motivation of \( t = -4.542 \) with gis. (2-tailed) of 0.001 at a probability value of 0.05 (5%). This means that the treatment between the experimental group and the control group after being treated improved significantly and had a not much different score. To affirm the results of the effectiveness test between the two groups, the pre-test and post-test data analysis was conducted using gain score analysis techniques. The results can be seen in Table 2.
From Table 2 we can see that control groups and experimental groups have not much different gain values. The gain score test results showed that cognitive behavior counseling and innovative learning have the same effectiveness in improving students' learning motivation. The negative significance between the control group and the experimental group according to the researchers was due to equally good treatment methods to improve students' learning motivation. However, after observation and retesting after 6 months after the end of treatment, the treatment method in the control group has weaknesses in the consistency of time. While in the experimental group has a consistency of time that can last a long time. Researchers argue that this is because the treatment received by the experimental group has become a habit (behavior) that allows it to appear without the need for stimulus or negative reinforcement again. The explanation of these findings will be explained in the Discussion section which will be divided into 4 topics, namely Improving behavior through positive reinforcement and conditioned strengthening, reducing and eliminating behavior, creating new behaviors through formation, and building behavioral resilience through strengthening schedules.

DISCUSSION

Guidance and counseling services are provided by a school counselor. At the secondary school level, Guidance and Counseling is an integral service that facilitates students in personal, social, educational, and career development. At this level, students are required to be able to explore and understand their potential, especially how students are able to think creatively in the 4.0 era (Aditama, 2020).

In this study it has been assumed that the appearance of creative thinking is the ability to re-combine or rearrange ideas based on some specific pattern on the type of creative thinking, such as painting landscapes, creating some new scientific instruments, or creating new ideas (Welch, 1946). Creative thinking skills are the result of grace from God or skills that can be
honored by man. To hone these skills it takes time and a systematic way by applying the principles of learning (Purwanta, 2014).

The results showed that cognitive behavior counseling has a longtime consistency to improve students' creative thinking skills. The findings are not without a clear reason, one of the reasons is that cognitive behavior counseling has a pattern of handling and treatment that focuses on the repetition of positive behaviors, and weakens negative behaviors. Here's a scientific explanation based on the e-operand conditioner.

**Improved behavior through positive reinforcement and conditioned reinforcement**

Positive reinforcement (positive reinforce) is an event when presented directly following a behavior, causing the behavior to increase in frequency. Positive reinforcement is defined as rewarding. According to Skinner, any individual who does something on a particular event is then followed by positive reinforcement, it will tend to repeat the same behavior when facing similar situations. With a sense, when every behavior performed by an individual gets a good response, then the individual is likely to repeat its behavior. This event can be used to improve other behaviors when performed in other situations (Martin & Pear, 2008).

Positive reinforcement is events that increase a response when they are introduced or given the next response. Therefore, a new program is needed to build the resilience of such behaviors. In positive reinforcement, the increasing response is caused by the provision of positive stimulus. While in negative reinforcement, the increasing response is caused by the loss of negative stimulus. Strengthening positive stimulus will increase the rate of individual response, therefore rewarding will increase the repeating of a response (Skinner, in Sri Rumini, 1993).

Researchers found that positive reinforcement of learning motivation greatly influences how new behaviors can be formed, such behaviors are creative thinking skills. Researchers also argue that teaching and learning facilities, teacher skills in conveying learning interestingly can affect the level of motivation of learning students, but in this case the strengthening of behavior that arises from a student will be limited by the availability of infrastructure and educators, as a result of which the behavior (response) will disappear as well as eliminate the stimulus as well. This is in contrast to behavioral modification counseling that prioritizes the formation of behavior with psychological assessment, and is proven to affect the consistency of student behavior.

There are 8 factors that affect the effectiveness of positive reinforcement (Martin & Pear, 2008): (a) select which behaviors to improve; (b) select an amplifier; (c) activating operations;
(d) the size of the amplifier; (e) instructions (specifying rules); (f) the immediateness of the amplifier; (g) contingent vs non-contingent amplifiers; (h) discontinue therapy from the program and begin replacing it with scientific boosters. When a positive reinforcement has been abandoned even once, then what happens to the individual's behavior is to return to its original condition before strengthening.

**Behavior Reduction and Elimination**

Behavior can be reduced or eliminated, even newly formed behaviors can also be reduced or eliminated. Behaviors that tend to be unfavorable or pleasant are likely to be eliminated or reduced. The way to reduce or eliminate such behavior is called extinction procedures and punishment procedures (Purwanta, 2014). Extinction procedure is a method of reducing behavior by stopping positive reinforcement or negative reinforcement. This method is done by stopping the initial strengthening that has been done continuously at a certain level of behavior (Martin & Pear, 2008).

The method of removal and reduction aims to reduce old behaviors that interfere with an individual's growth. This removal procedure is part of the principles of systematic learning with a continuous and continuous pattern of time. In this study, the negative behavior that appeared to be the student's learning motivation was low. Therefore, behaviors that are considered to affect the probability of creative thinking and should be reduced or removed are low learning motivations. Learning motivation that influences students to expend their creative thinking skills, when the motivation of learning is high, students are more motivated to actively generate new ideas and ideas in the classroom (Sternberg, 2003). Confirmation and elimination of behavior is not solely done by a therapist/counsellor, but must involve all existing elements such as parents, friends, subject teachers, and curriculum makers (Martin & Pear, 2008).

**Creating New Behaviors Through Formation**

One way to create new behaviors is by means of positive reinforcement, but this behavior will only appear occasionally. It would be impossible if we wanted to create new behaviors but the desired behavior only appears occasionally. At this point, the "formation" method can be used to form a new behavior that has never been presented before (Martin & Pear, 2008). Modification of the behavior using this method of "formation" begins with strengthening a response that once appeared with a greater frequency and at least equal to the frequency of target behavior.
Shaping is the development of new conditioning behaviors by strengthening the successive approximation of the behavior and the refinement of previous approximations of the behavior, until the desired new behavior appears. Reinforcement of new behaviors that begin to be formed gradually will encourage individuals to bring up such behaviors with high frequencies. When the behavior begins to appear with a high frequency, the therapist/counsellor stops its strengthening and nausea to strengthen the next behavior that is closer to the destination behavior. So, at this stage of behavior formation, strengthening of behavior should be done with a simple stage towards a higher frequency. In principle, emerging new behaviors can develop when gaining reinforcement from the environment (Martin & Pear, 2008).

The strengthening received by the counsellor will accelerate the behavior of the purpose of being formed. Researchers believe the approach of conditioner operands applied to counsellors will accelerate the emergence of pre-planned goal behavior. Creative thinking skills are new behaviors that want to be raised as goal behavior after the counselor begins to have a passion in learning. This creative thinking skill arises from the stimulus provided by therapists / counselors with training methods in creative thinking. Repeated habituation with the provision of positive reinforcement or appropriate negative reinforcement, making the behavior of the goal can be achieved.

**Building Behavioral Resilience**

When the behavior they are studied and mastered, it must be maintained immediately. Building behavioral resilience is a way to make that behavior sedentary and become a new identity for the individual. One way to build behavioral resilience is to create strengthening schedules (Martin & Pear, 2008). The simplest way to maintain behavior is to give continuous training with the right time frame. The giving of exercise is not only to strengthen the new behavior that is to be achieved, but can also be used to build resilience to the behavior. Therefore, strengthening needs to be done continuously even though the therapy/counseling process has been stopped. This is called continuous reinforcement (CRF) (Martin & Pear, 2008).

Creative thinking skills that individuals already have must be maintained. Strengthening in the defense phase of this behavior is carried out with planned schedules. Maintaining behavior that is already mastered has several advantages, one of which is that it tends to last longer to be maintained. The study findings suggest that there was a decrease in learning motivation in the control group after 6 months of discontinued treatment, hinting that new behaviors were formed only when stimulus was administered immediately. Whereas when the stimulus is stopped, the
old behavior will re-emerge, so on. The findings prove that students' behavior (response) cannot be settled only by physical stimulus. However, it must be strengthened through emotional and psychological stimulus. Psychological stimulus from habituation of cognitive learning allows students to stay on new behaviors longer.

CONCLUSION

In the industrial era 4.0, the importance of creativity in thinking is an issue that needs to be highlighted. The development of the era that increasingly leads to creative industries encourages individuals to survive the capitalist era with their creativity. Consequently, anyone who can not follow will be further left behind and immersed in the development of an increasingly crazy era. Creatif thinking is born from the habituation of learning that is continuously carried out continuously. To form it required precise and systematic techniques. Behavior modification techniques given to students who have low creative thinking skills are shown to have a significant impact on the formation of new behaviors in those students.

Behavior modification therapy that continues to be controlled and continuously carried out by students / counsellors even when the therapist / counselor stops the therapy, proven to make the new behavior become dominant and settle on the student / counselor. This was evident in the new behavioral confirmation differences between the control group and the experimental group after 6 months of treatment (stimulus) was discontinued. This indicates that new behaviors formed from the results of behavioral modification counseling have become a new part and attached to the behavior of students / counsellors.

ACKNOWLEDGMENT

All praise is only for the Lord of Hosts. With all due respect, we would like to express our deepest gratitude to the entire board of the Journal of Counseling and Education for the opportunity that has been given to us so that this article can be published. Thank you to the Head of Manado State University for all the support and permission for the research that we have been through so that we can arrange this research into articles that we can publish in accordance with the target and external purposes. Not forgetting to the leadership of the Research and Community Service Institute (LPPM) Manado State University who has provided funding support and permits in the implementation of this research.
There is no eternal science, man lives to keep searching. No work is perfect without proof and recognition. Sincerely from our Article Building Team.

REFERENCES

Aditama, M.H.R. (2020). Online Career Job Dictionary as Media Improving Career Exploration of Junior High School Students. Journal Teknodika. 18(2):133-145. https://doi.org/10.20961/teknodika.v18i2.43733

Alex F. Osborn. (2011). Creative Thinking. New Design, (91), 6.

Bacanli, H., Dombayci, M. A., Demir, M., & Tarhan, S. (2011a). Quadruple Thinking: Creative Thinking. Procedia - Social and Behavioral Sciences, 12, 536–544. https://doi.org/10.1016/j.sbspro.2011.02.065

Bacanli, H., Dombayci, M. A., Demir, M., & Tarhan, S. (2011b). Quadruple Thinking: Creative Thinking. Procedia - Social and Behavioral Sciences. https://doi.org/10.1016/j.sbspro.2011.02.065

Beaty, R. E., Benedek, M., Silvia, P. J., & Schacter, D. L. (2016). Creative Cognition and Brain Network Dynamics. Trends in Cognitive Sciences. https://doi.org/10.1016/j.tics.2015.10.004

Beck, A. T. (1976). Cognitive Therapy and The Emotional Disorders. Int. Univ. Press, New York.

Beck, Aaron T. (1970). Cognitive Therapy: Nature and Relation to Behavior Therapy. Behavior Therapy. https://doi.org/10.1016/S0005-7894(70)80030-2

Beck, Aaron T., Rush, A. J., Shaw, B. F., & Emery, G. (1979). Cognitive Therapy of Depression: A Treatment Manual. In Cognitive Therapy of Depression.

Buntat, Y., Sharliana, N., Nasir, M., & Pendidikan, F. (2011). Faktor – Faktor Yang Mendorong Kreativiti Di Kalangan. Journal Educational Psychology and Counseling.

Davis, C. B. (1989). The Use of Art Therapy and Group Process with Grieving Children. Issues in Comprehensive Pediatric Nursing. https://doi.org/10.3109/01460868909026834

Fhitrye Kartika Ma, 2013. Penerapan Teknik Sinektik Dalam Bimbingan Klasikal Untuk Meningkatkan Kreatifitas Siswa. Skripsi. UPI. Bandung

Field, M. G. (1996). Defying the Crowd: Cultivating Creativity in a Culture of Conformity. American Journal of Psychotherapy. https://doi.org/10.1176/appi.psychotherapy.1996.50.2.254
Goode, E., Dynes, R. R., & Tiemey, K. J. (1997). Disasters, Collective Behavior, and Social Organization. Social Forces. https://doi.org/10.2307/2580711

King, B. J., & Pope, B. (1999). Creativity As a Factor in Psychological Assessment and Healthy Psychological Functioning. Journal of Personality Assessment. https://doi.org/10.1207/S15327752JP720204

Kruilik, S., Rudnick. J. A. (1996). The New Sourcebook for Teaching Reasoning and Problem Solving in Junior and Senior High Schools. Boston, MA: Allyn and Bacon.

Lipman, M. (2015). Thinking in Education. Cognitive Neuropsychology proceedings, 1542(9), 33–36. https://doi.org/10.1017/CBO9781107415324.004

Lubart, T. (2004). Creativity from a Cognitive Developmental Science Perspective. Csjarchive. Cogsci. Rpi. edu.

Lycan, W. H. (1963). Book Commentary: Creativity and Innovation. John H. Haefele. Research Management. https://doi.org/10.1080/00345334.1963.11755660

Martin, G., & Pear, J. (2008). Modificación De Conducta Qué Es Y Cómo Aplicarla. In Innovacion y Experiencias Educativas.

McCracken, J. L. (1991). Creativity And Leisure for Recovering Alcoholic. Alcoholism Treatment Quarterly. https://doi.org/10.1300/J020V08N03_08

Meichenbaum, D., & Meichenbaum, D. (1977a). A Cognitive-Behavior Modification Approach to Assessment. In Cognitive-Behavior Modification. https://doi.org/10.1007/978-1-4757-9739-8_10

Meichenbaum, D., & Meichenbaum, D. (1977b). Cognitive Restructuring Techniques. In Cognitive-Behavior Modification. https://doi.org/10.1007/978-1-4757-9739-8_7

Meichenbaum, D., & Meichenbaum, D. (1977c). Self-Instructional Training. In Cognitive-Behavior Modification. https://doi.org/10.1007/978-1-4757-9739-8_2

Mohd Azhar Abd Hamid (2004). Kreativiti Konsep Teori & Praktis. Johor: Universiti Teknologi Malaysia.

Newell, A., Shaw, J. C., & Simon, H. A. (2011). The Processes of Creative Thinking. In Contemporary Approaches to Creative Thinking: A symposium held at the University of Colorado. https://doi.org/10.1037/13117-003

Piaget, J. (1964). Part I: Cognitive Development in Children: Piaget Development and Learning. Journal of Research in Science Teaching. https://doi.org/10.1002/tea.3660020306
Plucker, J. A., Beghetto, R. A., & Dow, G. T. (2004). Why Isn’t Creativity More Important to Educational Psychologists. Educational Psychologist. https://doi.org/10.1207/s15326985ep3902

Purwanta, E. (2014). Pengembangan Model Modifikasi Perilaku Terintegrasi Program Pembelajaran Untuk Anak Dengan Masalah Perilaku. Jurnal Cakrawala Pendidikan. https://doi.org/10.21831/cp.v2i2.2147

Russ, S. W. (1998). Play, Creativity, And Adaptive Functioning: Implications for Play Interventions. Journal of Clinical Child Psychology. https://doi.org/10.1207/s15374424jccp2704_11

Santrock, J. W. (2011). Educational Psychology 5th Edition. In Educational Psychology. https://doi.org/10.1017/CBO9781107415324.004

Sternberg, R. J. (2003). Creative Thinking in The Classroom. International Journal of Phytoremediation, 47(3), 325–338. https://doi.org/10.1080/003138303085959

Sternberg, R. J., & Lubart, T. I. (2014). The Concept of Creativity: Prospects and Paradigms. In Handbook of Creativity. https://doi.org/10.1017/cbo9780511807916.003

Sternberg, R. J., O’Hara, L. A., & Lubart, T. I. (1997). Creativity As Investment. California Management Review. https://doi.org/10.2307/41165919

Terr, L. C. (1992). Mini-Marathon Groups: Psychological “First Aid” Following Disasters. Bulletin of the Menninger Clinic.

TORRANCE, E. P. (1972). Can We Teach Children to Think Creatively? The Journal of Creative Behavior. https://doi.org/10.1002/j.2162-6057.1972.tb00923.x

Webster, P. R. (1990). Creativity as Creative Thinking. Music Educators Journal, 76(9), 22–28. https://doi.org/10.2307/3401073

Wechsler, S. M., Saiz, C., Rivas, S. F., Vendramini, C. M. M., Almeida, L. S., Mundim, M. C., & Franco, A. (2018a). Creative And Critical Thinking: Independent or Overlapping Components? Thinking Skills and Creativity, 27(January 2017), 114–122. https://doi.org/10.1016/j.tsc.2017.12.003

Wechsler, S. M., Saiz, C., Rivas, S. F., Vendramini, C. M. M., Almeida, L. S., Mundim, M. C., & Franco, A. (2018b). Creative And Critical Thinking: Independent or Overlapping Components? Thinking Skills and Creativity. https://doi.org/10.1016/j.tsc.2017.12.003
Weingarten, R., Verrilli, J. L., Pertschuk, M., Pomerleau, O., & Schneider, H. L. (1975). Behavior Modification. New England Journal of Medicine. https://doi.org/10.1056/NEJM197509042931024

Weishaar, M. E., & Beck, A. T. (1990). Cognitive Approaches to Understanding and Treating Suicidal Behavior. In Suicide over the life cycle: Risk factors, assessment, and treatment of suicidal patients.

Welch, L. (1946). Recombination Of Ideas in Creative Thinking. Journal of Applied Psychology, 30(6), 638–643. https://doi.org/10.1037/h0054074

Welsh, G. S. (1977). Creativity and Intelligence (Book). Journal of Personality Assessment. https://doi.org/10.1207/s15327752jpa4103_25