

Effectiveness of Video Self-Modeling on Hope and Daily Activities of Indonesian Youth

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Abstract. Individuals who struggle with low hope tend to experience difficulties in multiple dimensions, encompassing physical, psychological, and social aspects. Despite the development of hope concepts and interventions since the mid-1990s, there has been no specific research using video self-modeling (VSM) instruments to change an individual's aspirations. Therefore, this research aimed to analyze the effectiveness of VSM on the hope and daily activities of Indonesian youth. An experimental method with a multiple-baseline design was employed. As many as 5 participants from Indonesia were selected based on pre-screening hope scale scores, specifically those showing low domain points about activities associated with family, romantic, social, academic, work, or leisure time. The data were analyzed using visual inspection by comparing scores before and after VSM intervention. The results showed that all participants demonstrated an increase in the frequency of activities they preferred. It was also found that VSM can indirectly impact the improvement of hope. This technology can be an effective intervention to assist young individuals in achieving goals and enhancing their hope.

Keywords: Video self-modelling, behavioral intervention, hope

DOI:

<https://doi.org/10.15575/psy.v10i1.21328>

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Psymphatic :
Jurnal Ilmiah Psikologi
Vol.10:1, June 2023,
Page 101-112

eISSN: 2502-2903
pISSN: 2356-3591

Article Info

Received:

November 21, 2022

Accepted:

June 30, 2023

Published:

June 30, 2023

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Introduction

Young adulthood is a phase when individuals begin to enter the mature world after going through a vulnerable time as adolescents. Young adults are prone to being emotional in handling day-to-day problems in postsecondary or home situations. This vulnerability could exaggerate the risks of delinquency (Azeredo et al., 2019; Darvishi et al., 2022; Freelin et al., 2023), drug use and drinking, and other behavior problems (Buvik et al., 2022; Nahvizadeh et al., 2014; Nawi et al., 2021; Zucco et al., 2017). The fact that young adults are at risk to experience difficult times has led researchers to explore factors that might contribute to helping people to cope well in their young adulthood phase. One possible factor is people's hope. Hope is a synergy among "wishes," and "expectation," and the effort applied.

Hope is an individual ability to create a purpose, plan strategies (pathways) to achieve that purpose, and maintain the motivation (agency) in the process (Snyder et al., 1991). Hope can be measured in various domains or areas of life, such as academic life, work, family, social life, and leisure settings (Sympson,

1999). Factors influencing the enhancement of hope include: individual as a person, those relating to obstacles, and those involving interaction with others (Snyder, 2000).

Herth (2001) developed a seven-session "Hope Intervention Program" and applied it to 38 adults with cancer. A psychotherapy procedure with one of its purposes to create hope was given to 18 women with breast cancer (eight 90 min sessions) (Kashani et al., 2014). Hope interventions have been claimed to reduce depression in the survivors of natural disasters (Retnowati et al., 2015). However, these interventions usually require much time to reach their expected outcomes. The briefest hope intervention we could find was 90-min, who reported modest outcomes with university students.

Video self-modeling (VSM) demonstrates a learning method that highlights positive self-images of the future (Decker & Buggey, 2014). In VSM, the subject and the observer are the same person, who is video-recorded showing attempts to perform a target behavior or its "components". Future images of success are created with planned camerawork and editing of

these components. The intervention using VSM was chosen because this model is video-based, where young gadget users are familiar with videos.

Previously, VSM has been studied mostly in Western countries, plus a few Asian countries, such as Japan (Ohtake et al., 2013). As far as we are aware, VSM has not been practiced in Indonesia, or if it has, the results may not have been published. We acknowledge that hope has a value (e.g., spirituality) in the community. Hope is culturally relevant to Indonesian society partly because of its values. Therefore, it will be interesting to see if VSM can be effective in improving hope and behavior for Indonesian people.

VSM has been proven to be effective to improve reading fluency (Edwards & Lambros, 2018; Kamp, 2018; Ollar, 2018; Sen, 2016), reading motivation (Al-Mamari et al., 2023), and comprehension (Anderson, 2016; Decker & Buggey, 2014; Egarr & Storey, 2022; Robson et al., 2015; Yolandria, 2019); to increase communication skills (Alzyoudi et al., 2015; Babb et al., 2019; Chu & Baker, 2015; Liu et al., 2015; Özerk & Özerk, 2015; Smith et al., 2014) and social engagement in children with autism (Ewens, 2016; Ho et al., 2019; Lemmon & Green, 2015), plus for swimming (Al-magd, 2016; Lao et al., 2016) and gymnastics (Bouazizi et al., 2014; Rymal & Ste-Marie, 2016) performance, and the self-regulatory process (Omarchevska et al., 2022), as just a few examples that go back to the 1970s, including a case study in a 10 year old boy coping positively with social stress.

Despite many studies in VSM, its effect on hope has not been directly explored. However, the success expressed in the videos and achieved by the viewers are akin to hope, as is self-efficacy. Bandura (1977) has described self-modeling as the ideal means to provide skills information and to enhance self-efficacy. Some studies have examined the association between VSM and self-efficacy (Baras, 2019; Buck et al., 2016). The associations among VSM, skills development, and other constructs such as self-efficacy lead to the question of how they relate to hope. This study examines potential relationships among VSM, skill acquisition, and hope. VSM's purpose is to motivate the participants to engage in the target behavior, which seems to imply hopefulness. VSM can be used across cultures because it uses oneself as a model.

The assumptions of VSM and hope both focus on creating a better future. The present work aims to evaluate the effect of VSM on behavioral performance and hope enhancement. Building on previous research, we hypothesize that VSM intervention can be effective to enhance hope in young adults. The research question is can VSM improve the performance of selected daily activities valued by the participants?. Overall, it is our wish that this study's results will contribute to the

development of VSM to improve hope-related, personally valued specific behaviors.

Methods

This study used a multiple-baseline design to investigate the effectiveness of our intervention (Kazdin, 2016). The main dependent variables in this study are the specific activities, while the independent variable is the Video Self Modeling (VSM) intervention. A further dependent variable is the associated levels of hope, as their target behaviors, one activity from six theme options that had been measured in the pre-test sessions.

Participants

The participants in this study were 5 young adults (ages 21-23 years), recruited at an Indonesian university, who had low hope scores in major aspects of their lives. The participants were three females and two males used initials O, Z, R, N, and F for identification (Note: all names are pseudonyms). They were Indonesians from two ethnic groups, Sundanese and Javanese, the largest of some 300 ethnicities nationwide. The potential participants were given access to fill in an online questionnaire that consisted of an information page, consent form, contact form, and hope assessment. The participants viewed all research information in Bahasa Indonesia, the official national language. The initial hope scores were used for participant selection. Prior to being interviewed, the five participants were asked for their consent to participate in the series of studies to be conducted.

The five participants were selected and interviewed to choose an activity they wanted to improve on a daily basis (individual target behavior). The decisions were based on the preferences of the participants, their lowest hope domain scores, and their past failures to pursue an activity. Then they each began their multiple baseline intervention on a "staggered start" (Kazdin, 2016).

Setting

The research was conducted at an university in Bandung. The interview sessions for all participants and the conversation sessions for N and F took place in an interview room. The room had two chairs with desks. Two chairs were set to face each other, and an audio recorder was placed on the participant's desk arm to record the conversation. The room also had a closed-circuit television (CCTV) camera to be watched by an observer in a monitoring room. R's video shooting process took place on a footpath at the university, for the jogging activity, and the reading activity at the university library. The video shooting sessions for Z and O took place in a laboratory room that provided the space to do their exercises. The participants watched

the self-modeling videos on their smartphones. During these video shooting sessions, one of the researchers as an Indonesian native speaker, spoke Indonesian to communicate with the participants to ensure clear understanding of the instructions.

Measures

This study measured behavior performances, hope scores, social validity, and inter-observer agreement. The following section explains the details and principles of each measurement.

Daily Activities

Each target behavior was decided after the pre-test and was individualized for each participant. Each participant chose a target behavior related to the hope domain in which they scored lowest (in these instances: academic life, social life, or leisure). These target behaviors were chosen based on each participants' domain hope scores and interviews. After decisions had been made, we constructed behavioral definitions for each activity.

"R's" goal was to read at least 4 pages a day from a textbook (academic domain). The first goal for both "Z" and "O" was to do at least a set of 10 push-ups a day (leisure domain). O chose a second goal, which was to do a set of at least 10 sit-ups a day. The goals for both "N" and "F" were to improve their conversation skills with strangers (social domain). This task was defined as asking, probing, and answering questions related to an everyday topic (e.g., 'Who is your favorite lecturer?', 'What are your current activities?').

To collect the participants' daily performance data, we measured the frequency for each activity performed by the participants before, during, and after the intervention. The measurement used observation sheets to record duration and/or frequency of specific activities.

Hope

Hope levels were assessed by administering self-report assessments throughout the study. The self-report was constructed using an online questionnaire that consisted of the Hope Scale (Snyder, 2000) with a reliability of .83 and the Domain Specific Hope Scale (Simpson, 1999). The scale consists of 6 domains with 8 items on each domain with total of 48 items. The item example was, "I can think of many ways to make friends". Participants were given a secure link to access the online questionnaire. We measured the participants' levels of hope before and after the intervention as pretest and posttest sessions, and one month after the study as a follow-up.

Design

Given the individual goals, the individualized procedures, and the collective-oriented cultures embraced in this research, the design of choice is multiple baselines across subjects (Blampied, 2013; Normand, 2016). That is, repeated measures are taken for each participant first in a pre-treatment baseline, then during a period of intervention, and then post-treatment. The participants enter treatment with a staggered start, in this case, 1 week apart. This design allows potentially definitive judgment on any causal relationship between the independent variable (VSM) and the main dependent variable (target behaviors). This method has strong internal validity and replications allow reasonable external validity for inferences of generalization of results.

For the question of impact on hope, with only pre and posttest measures from self-report questionnaires, the findings must be tentative. That is, the numbers are too small for statistical analysis. In this respect, part of the research is preliminary, which is appropriate given its novelty and the intensive data collection on the other dependent variable.

Procedure

The procedure consisted of the initial assessment, baseline, video production, intervention, post-intervention, and follow-up.

Baseline

The baseline data were reported at the end of the pre-intervention phase by R, Z, and O (two were zero, the other close to zero). See Figures 1-3, no intervention was given during this baseline.

Video Production

A self modelling video was created individually for each participant based on the chosen behaviors. First, a video camera recorded each participant's effort in performing her or his activity. To produce the desired scenes, the participants performed several trials, and we used hidden (out-of-camera) supports (Dowrick, 1999) and other filming techniques.

The video recording, in which each scene was explicitly directed, took 15 to 30 min for each participant. The video editing took approximately 30 min. The videos were edited by identifying the desired scenes, omitting unwanted scenes, and picking and dropping scenes in an orderly manner. The participants chose their favorite music for the background. The final edits showed exclusively scenes of successful activities related to the target behavior; they ranged from 1 min 20 s to 2 min 30 s long.

Intervention

After baseline and video production, the participants watched the edited video every day for a week. The intervention was given in different weeks for each participant (1 week apart). Given a choice, all participants chose to view the video on their smartphones. Each was reminded via WhatsApp messages to watch the video every day in the morning. At the end of the day, this was verified, and if necessary, the participants would watch their videos during WhatsApp communication with the researchers. During the intervention phases, the target behaviors were monitored with the same procedure as in the baseline.

For conversation skills, the sessions were conducted four times a week (each phase), with two one-on-one and two group sessions. N and F each selected topic for the next session. We asked them to list new questions for use in the one-on-one sessions. In group sessions, they interacted spontaneously. Note, this placed more demands on the group activity.

Post-intervention

Each VSM intervention ran for just 1 week. The participants then completed the online questionnaire again to identify changes in hope scores. Participants' behavior performances were monitored for 1 more week.

Follow-up

To evaluate the VSM's effects for a longer period, the participants filled in the online questionnaire and their target behaviors (performance) were observed again, 1 month (then in some cases 2 months) after the intervention. They were also asked to fill in the social validity questionnaire. After all data were obtained, we thanked the participants and sent them a summary of results of the study, as they had requested in the consent forms.

Data Analysis

We used visual inspection to analyze the graphed data collected during the study. This method of data analysis is most often used in single-case study designs (Ledford & Wolery, 2013). This method indicates the individual onset of the effects of the intervention (Blampied, 2013; Kazdin, 2016). There were three steps in analyzing this study's findings. First, the VSM's effectiveness in achieving the target behaviors was evaluated. Second, the hope scores of the participants throughout the VSM interventions were measured and compared to identify if there were any changes. Third, behavioral and hope changes were examined to see to what extent they co-varied with intervention.

The inter-observer agreement showed the mean across participants was 95% agreement (range 64% - 100%). The content was also checked for integrity and fulfilled 100% of the criteria. The criteria included video title, length (from 1-3 min), footage related to target activity (at least 90% of the video), and music background (individual's choice, not obtrusive).

Results and Discussion

Results

Eighteen young adults (ages 20-23 years) responded to the online questionnaire. Five participants were then selected based on their domain hope scores, which were below the criterion established by Lopez et al. (2000). Interview sessions revealed their domain preferences to be varied.

Daily Activities

Participant 1 (O). The first panel of Figure 1 shows the rate of O in push-up activity across daily sessions. His push-up rate remained at zero during the baseline session. The first time he watched the intervention video, he started in a set of 10 counts of push-ups a day. At a 1-month follow-up, he improved the frequency to 45 push-ups a day. See outlier under Follow-up in graph.

The second panel of Figure 1 shows the rates for O in a sit-up activity. During the intervention phase, O started to do 10 sit-ups a day. After three days of watching the video, he progressed to 15 times a day. After a month, he did 45 sit-ups, the same as his push-ups. O also started a new exercise, weightlifting.

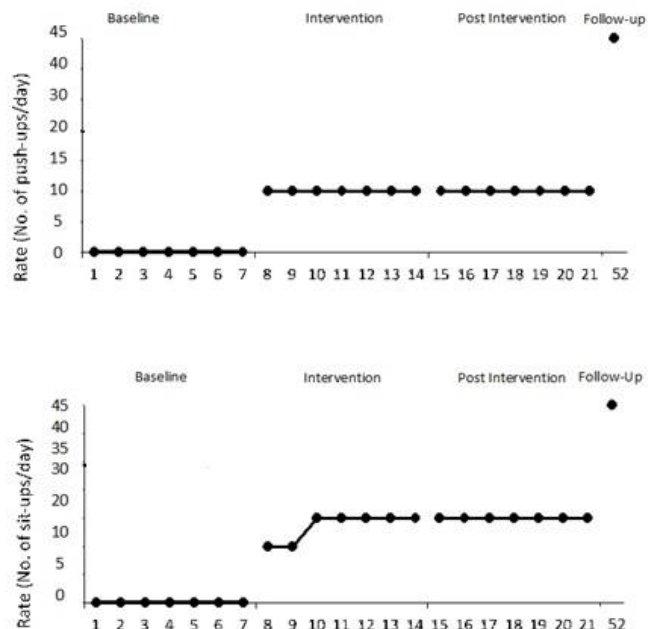


Figure 1. Target behavior (upper: push-ups, lower: sit-ups) rates for O across sessions

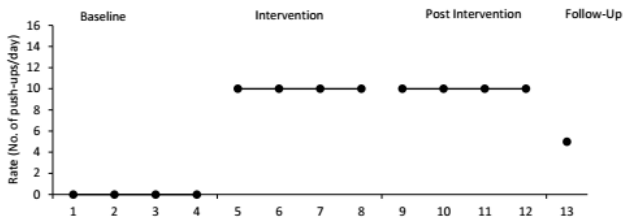


Figure 2. Target behavior (push-ups) rates for Z across sessions

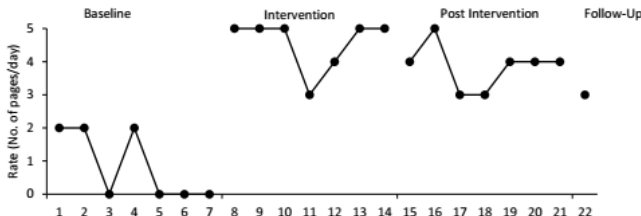


Figure 3. Target behavior (reading activity) rates for R across sessions

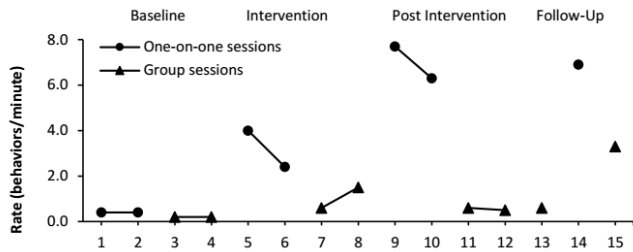


Figure 4. Target behavior (conversation skills) rates of N across sessions

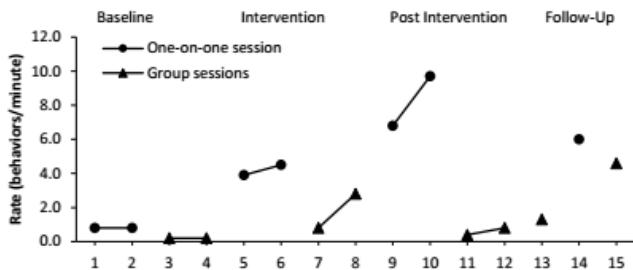


Figure 5. Target behavior (conversation skills) rates of F across sessions

Participant 2 (Z). Z started to push-up at the time he began watching a video of himself doing a set of push-ups, but only 4 days a week, less than his goal to do them every day (See Figure 2). Z attributed his lower-than-planned activity to simple forgetfulness. During and after the intervention, he achieved his push-up rate of 10 push-ups a day. In follow-up, he maintained daily push-ups but only 5 per day.

Participant 3 (R). R, in her baseline, read 2 or 0 pages each day. During the VSM intervention, she averaged better than her goal of 4 pages per day. In the post-intervention and 1-month follow-up, her reading rate remained steady (Figure 3).

Participant 4 (N). N, in her baseline sessions, answered questions but did not ask any (.2 statements

per minute in average). After she had watched the video of herself speaking comfortably with another person, her rates improved. N even managed to ask some questions of her conversation partner. Her responses in both one-on-one and group sessions improved. She responded in the conversation more often, not only by asking and answering questions, but she also probed and gave suggestions. In post-intervention, her rates improved in one-on-one sessions but decreased in the group sessions. Nevertheless, her rates were still higher than in the baseline. At the 2-month follow-up, she maintained her rate in the one-on-one sessions, and her rates in group sessions improved (see Figure 4).

Participant 5 (F). During the baseline, F spoke .2 statements on average per minute. During the week watching the intervention video, F's rate increased to 4 statements per minute. In post-intervention, his rate in the one-on-one sessions continued to improve beyond 7 statements per minute. His highest rate (10/min) occurred in a one-on-one session at the end of the post-intervention phase. His rates in the group sessions increased (up to 3 statements per minute), although still lower than in one-on-one. In the 1-month and 2-month follow-up, he showed slightly higher rates than during intervention (Figure 5).

All participants showed some positive progress in their target behaviors, and general hope and domain-specific hope scores, with very brief interventions. Some improvements were variable and some outstanding. All post-intervention results were above baseline.

Hope

Participant 1 (O). O's general hope scores increased up to 9 points after VSM intervention (Figure 6). Compared with other participants, he gained the highest scores (57 and 55) and the greatest improvement in general hope post-intervention and at follow-up. He also showed the greatest behavioral change, especially in follow-up.

The target behaviors in exercise for O were related to the leisure domain. O's leisure domain and satisfaction scores showed the greatest changes from pre-test to follow-up compared with other domains and other participants. He also reached the highest leisure score among other domains and participants after VSM intervention and follow-up (59 and 61).

All of O's domains increased by 5 to 10 points after VSM intervention. Besides leisure, his academic hope score showed the greatest improvement (up to 10 points). O improved his total domain specific hope scores from below criterion in baseline to above criterion after VSM intervention and had the highest total scores in all phases.

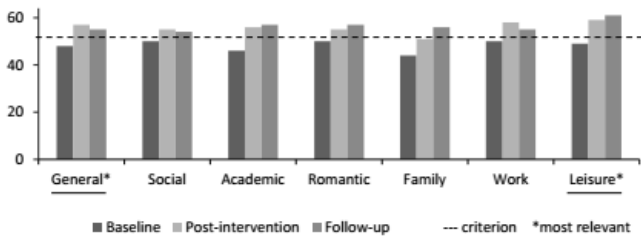


Figure 6. Hope scores for O throughout the phases

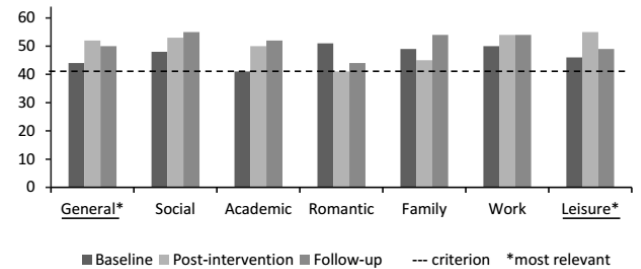


Figure 7. Hope scores for Z throughout the phases

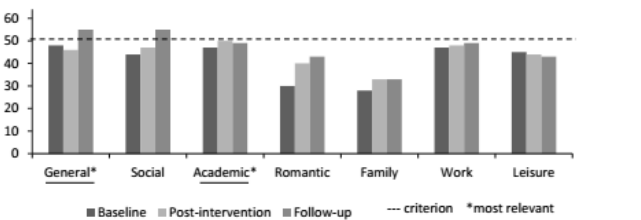


Figure 8. Hope scores for R throughout the phases

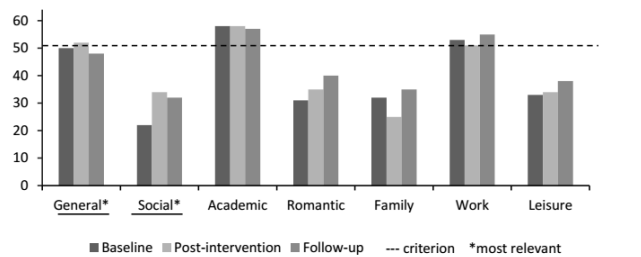


Figure 9. Hope scores for N throughout the phases

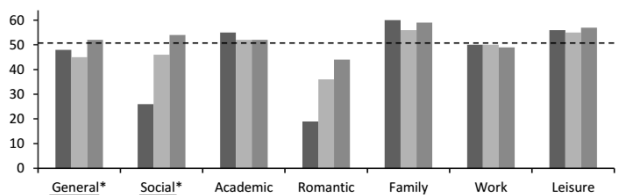


Figure 10. Hope scores for F throughout the phases

Participant 2 (Z). After the intervention, Z increased his general hope score by 8 points (Figure 7). He achieved the second highest score (52 points) and second biggest improvement (up to 8 points) compared with other participants. He maintained close to this new hope score in follow-up. Z's target behaviour was related to the leisure domain. This domain was one of the most important and satisfying domains for him and remained approximately stable. Z's leisure score increased after VSM intervention and decreased in

follow-up. Here he achieved the second biggest improvement and second highest score compared with other participants. His academic score showed, equal to leisure, the greatest increase post-intervention (up to 9 points). In follow-up, his family domain showed improvement (up to 9 points).

Participant 3 (R). In post-intervention, R's general hope score showed little change (Figure 8). However, she increased her score by 9 points in follow-up. In this phase, her score was one of the highest and had the greatest improvement compared with other participants. She was most satisfied with the academic domain (most relevant). Her academic scores increased in post-intervention, wherein she reached the highest score in this domain among all domains.

R's total scores were below criterion until follow-up. However, she increased her total domain specific hope scores throughout the phases and showed the biggest improvement in post-intervention. She commented that the video helped her achieve her goal, which may have supported her improvement clinically.

Participant 4 (N). N's general hope score improved with VSM intervention (Figure 9) but at follow-up, her score decreased very slightly below the baseline. N's conversation skills target was related to the social domain. In the baseline, N's social score (22 points) was the lowest compared to other domains and participants. After the intervention, her scores were still low, but she increased (up to 12 points) and showed the second biggest improvement among all participants. Her social importance and satisfaction scores also showed the biggest improvement compared to other participants. In follow-up, these scores changed very little. N considered academic as the most important and satisfying domain in all phases, which shows in her domain-specific scores. N's total scores were still below the criterion of 302 points set by Lopez et al. (2000). However, N improved her domain-specific scores throughout the phases. Her total scores showed the greatest improvement in follow-up compared with the other participants.

Participant 5 (F). F's general hope score improved in follow-up. Here he gained the third highest score compared with the other participants. F's goal was linked to the social domain, for which his score made large gains in both post-intervention and follow-up, as did romance scores. Compared with other participants' social scores, he showed the greatest improvement (up to 20 points). In follow-up, all F's hope domains increased, except for academic and work domains which were virtually unchanged. His general hope and social scores both eventually reached criterion (see Figure 10).

All participants achieved the greatest improvements in the hope domain related to their target behaviors. Most of the participants considered family

their most important domain, although notably not targeted nor greatly subjected to change. O achieved the highest rate of target activity and the greatest increase in hope compared with the other participants throughout the phases.

Social Validity

All involved agreed or strongly agreed that success in achieving certain goals can enhance hope and is an important factor in enhancing hope. They also agreed or strongly agreed that the procedure and the videos were suitable and effective in enhancing hope. All but F (who was neutral) agreed that the procedure was effective in helping to achieve a certain behavior target. They also agreed, except R who was neutral, on their satisfaction with the procedure.

In answering the question about how they felt after they participated in the study, both Z and O indicated they were happy because they achieved their goals related to the leisure domain. R, with her goal related to the academic domain, answered, "There is a change in my reading activity although only a small change, but in the end, I achieved my goal." About the social domain, N commented, "This study helped me to be braver to socialise with people." Similarly, F answered, "I feel more confident to meet new people."

Discussion

In this study, five interventions were strongly effective with five individuals, notwithstanding their brevity. No studies have reviewed the effect of VSM on hope per se, as noted in the Introduction. This study is the first to explore the explicit relationship between VSM and standardized measures of hope. It is also the first VSM study in Indonesian culture.

Many studies show evidence that VSM interventions contribute to the success of learning new skills and maintaining current skills (Baras, 2019; Campbell et al., 2015; Hong et al., 2016; Park et al., 2019). Previous researchers have made efforts to explain the psychological processes during VSM intervention; for example, examining VSM effects on self-efficacy (Hiromitsu & Ishikura, 2021; Jennings et al., 2013; Middlemas & Harwood, 2020) or self-regulation (Middlemas & Harwood, 2020; Rymal & Ste-Marie, 2019). The psychological construct examined here to help explain the psychological process of reaching one's goals is "hope" (Snyder, 1994).

This study tracked three different target behaviors that were selected by the five participants for themselves: viz. exercises (push-ups and sit-ups), scholastic reading, and conversation skills for meeting new people. The targets were, in fact, selected because they were valued by the participants and they had prior difficulties in achieving those targets. All participants'

target behavior performances improved from moderately to markedly, after they watched the intervention videos. The multiple baseline ensured that VSM played a significant role in their improvements. It also corroborates the finding that VSM typically produces a much faster effect than may be expected from most other interventions. This finding deserves some emphasis. The speed of effect with 2 min videos, watched just 5 times, is why VSM with feedforward is referred to as "rapid learning". The multiple baseline (repeated measures) design indicates that meaningful changes occurred after just the first few minutes of watching videos of target behavior. At the time of the videos being watched, they may be considered to display future behavior.

Participants' progress varied. The exercise activity showed greater development than the other target behaviors. In this activity, O's improvement was greater than Z's, including a 4-fold increase at follow-up, indicating a low initial self-estimate, typical of a low hope condition. In conversation skills, F's improvement was just higher than N's average. Baselines for both participants were almost zero, improving markedly for one-on-one conversations. 25% for F. Both greatly improve their social hope, but notably more for F.

The participants were able to learn behaviors in clearly illustrated steps. Such progress is indicated in numerous VSM case studies (e.g., a 24 years old man with autism who had wanted to tie his shoelaces for 10 years, learned the task in 22 steps over several weeks but learned the last 11 steps in one screening of a video (Gonzales et al., 2015).

These increases also suggest further possibilities. First, watching VSM might directly change the level of hope. Alternatively, regarding the success of the target activities, it may mediate the interaction between VSM and hope. In other words, these three variables appear to be associated with each other. There could also be unrecorded extraneous variables that influence the changes.

The results of the reading activity look modest: (4 pages/day is not high in an academic environment, although a 4-fold increase is proportionally very large. However, the effect is considerable given the low dose of the treatment. Typical in other interventions, previous studies required 2 weeks of daily instruction to improve reading comprehension (Robson et al., 2015) or 400 minutes to improve reading fluency (Young et al., 2015). By contrast, R needed to watch her 2 min self model video only once to demonstrate effects (albeit on the quantity of reading; consistent quality implied but not measured). As noted, the effect of VSM is often faster than other intervention techniques, which predisposes this technique to be used for personally valued activities. The use of VSM in this

study provided a very brief intervention. No previous studies, with various interventions, have indicated such rapid changes in hope.

A study of the relationships between social skills, resilience, and self-esteem also supports this result. Saito and Oyasu (2014) studied those correlations in 252 university students. They found that social skills improvement in students with low self-esteem had a stronger effect on resilience than for those with high self-esteem. This finding might support the current study in suggesting that social skills improvement can also influence changes in hope.

VSM has been used in different cultures, including mostly Western but some Eastern or mixed cultures (e.g., Ohtake et al., 2013; Tsui & Rutherford, 2014; Youn Kang & Kim, 2020). However, no studies have explicitly explored VSM in association with culture. In this study, we included young women and men of mostly Muslim Indonesian culture, which is more collective than individualistic, having more likely external than the internal locus of control (Cheng et al., 2013). The results, however, were not notably different from outcomes of other VSM studies. It will take many further studies to isolate cultural effects with comparable participants and domains of hope.

Because VSM uses people's own images, it can be applied to any culture. This study found that all participants consider family as the most important domain. It is well-established that Eastern cultures emphasize less self-oriented, more collective values (Krassner et al., 2016). These are just two further possibilities for ethnic exploration.

The small number of participants represented on each of the target behaviors may not provide strong external validity, because only one or two participants were performing each of the target behaviors. Nevertheless, regarding VSM as the independent variable, the participants of this study were suitable for single-case research, with very strong internal validity. Note, for example, both N's and F's conversation rates were, at their height of intervention, 20 to 40 times their initial baseline rates, substantially but incompletely maintained at follow up.

Additional future research could explore the direct and indirect effects of VSM as it relates to other psychological constructs. In previous studies, the VSM effects on self-efficacy and self-regulation have been analyzed, and in the current study, the VSM effect on hope was evaluated. Meanwhile, other concepts related to hope (e.g., optimism, resilience, the locus of control) have not been measured in VSM studies. Some changes will occur as a product of improving the desired behavior, so it will be difficult to tease out cause and effect, but easy to see if there are broad correlations.

Concerning social validity, participants acknowledged that VSM had benefitted performances

and levels of hope, although variable across phases. These inconsistencies indicate the possible contribution of extraneous variables to the changes. We recommend future research to investigate the effects of VSM on other psychological constructs with comparisons across cultures.

Conclusion

In conclusion, the findings of this study support the potential for VSM to help young adults with low hope to achieve their goals. All participants showed increases in their performances after watching their videos. All the participants also showed improvement in their hope domain scores related to their target behavior. With the goal (target behavior) as a mediator, VSM seems to have generated an indirect effect on the enhancement of hope. Some other domains also showed improvement, suggesting some generalization. These results are the first to show direct evidence in which VSM may influence levels of hope. The findings of this study promote future possibilities to improve levels of "hope" in many people's lives.

References

- Al-magd, M. G. A. (2016). Effects of video modeling on technical performance while teaching back stroke style for the beginners in swimming. *Journal of Applied Sports Science*, 6(1), 32–38. <https://doi.org/10.21608/jass.2016.84540>
- Al-Mamari, A. A. S., Al-Shorbaji, S., & Abu Hilal, M. (2023). The effectiveness of video self-modeling (VSM) in improving reading fluency and reading motivation for fifth-grade female-students enrolled in the program of learning difficulties. *Journal of Educational Sciences*, 20(20). <https://doi.org/10.29117/jes.2022.0091>
- Alzyoudi, M., Sartawi, A., & Almuhi, O. (2015). The impact of video modelling on improving social skills in children with autism. *British Journal of Special Education*, 42(1), 53–68. <https://doi.org/10.1111/1467-8578.12057>
- Anderson, C. (2016). The impact of video self-modeling on oral reading fluency and reader self-perception. *Capstone Projects and Master's Theses*. 572.
- Azeredo, A., Moreira, D., Figueiredo, P., & Barbosa, F. (2019). Delinquent behavior: Systematic review of genetic and environmental risk factors. *Clinical Child and Family Psychology Review*, 22(4), 502–526. <https://doi.org/10.1007/s10567-019-00298-w>
- Babb, S., Gormley, J., McNaughton, D., & Light, J. (2019). Enhancing independent participation within vocational activities for an adolescent with

- ASD using AAC video visual scene displays. *Journal of Special Education Technology*, 34(2), 120–132. <https://doi.org/10.1177/0162643418795842>
- Baer, D. M., Wolf, M. M., & Risley, T. R. (1968). Some current dimensions of applied behavior analysis. *Journal of Applied Behavior Analysis*, 1(1), 91–97.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191–215. [https://doi.org/10.1016/0146-6402\(78\)90002-4](https://doi.org/10.1016/0146-6402(78)90002-4)
- Baras, F. (2019). Video self-modeling as evidence-based intervention. *International Journal of Education and Human Developments*, 5(2), 36–46.
- Barlow, D. H., Hersen, M., & Miss, J. (1973). Single-case experimental designs: Uses in applied clinical research. *Arch Gen Psychiatry*, 29, 319–325.
- Blampied, N. M. (2013). Single-case research designs and the scientist-practitioner ideal in applied psychology. *APA Handbook of Behavior Analysis, Vol. 1: Methods and Principles*, 1, 177–197. <https://doi.org/10.1037/13937-008>
- Bouazizi, M., Azaiez, F., & Boudhiba, D. (2014). Effects of learning by video modeling on gymnastic performances among Tunisian students in the second year of secondary level. *IOSR Journal of Sports and Physical Education*, 1(5), 05–08. <https://doi.org/10.9790/6737-0150508>
- Buck, D. J. M., Hutchinson, J. C., Winter, C. R., & Thompson, B. A. (2016). The effects of mental imagery with video-modeling on self-efficacy and maximal front squat ability. *Sports*, 4(2). <https://doi.org/10.3390/sports4020023>
- Buvik, K., Tokle, R., Bilgrei, O. R., & Scheffels, J. (2022). Alcohol use in adolescence: A qualitative longitudinal study of mediators for drinking and non-drinking. *Drugs: Education, Prevention and Policy*, 29(6), 685–693. <https://doi.org/10.1080/09687637.2021.1952931>
- Campbell, J. E., Morgan, M., Barnett, V., & Spreat, S. (2015). Handheld devices and video modeling to enhance the learning of self-help skills in adolescents with autism spectrum disorder. *OTJR Occupation, Participation and Health*, 35(2), 95–100. <https://doi.org/10.1177/1539449215570040>
- Cheng, C., Cheung, S. F., Chio, J. H.-m., & Chan, M.-P. S. (2013). Cultural meaning of perceived control: A meta-analysis of locus of control and psychological symptoms across 18 cultural regions. *Psychological Bulletin*, 139(1). <https://doi.org/10.1037/a0028596>
- Chu, S. Y., & Baker, S. (2015). The effects of video self-modeling on high school students with emotional and behavioral disturbances. *Preventing School Failure*, 59(4), 207–216. <https://doi.org/10.1080/1045988X.2014.903465>
- Darvishi, M., Vahid, M. K. A., Athar, M. E., Trejos-Castillo, E., & Asgarabad, M. H. (2022). The explanation of adolescent delinquent behaviors based on Jessor's Problem Behavior Theory (PBT) in Iran: The role of individual vulnerability, opportunity risk availability, and perceived support. *Frontiers in Psychiatry*, 13(January), 1–10. <https://doi.org/10.3389/fpsy.2022.744794>
- Decker, M. M., & Buggey, T. (2014). Using video self- and peer modeling to facilitate reading fluency in children with learning disabilities. *Journal of Learning Disabilities*, 47(2), 167–177. <https://doi.org/10.1177/0022219412450618>
- Dowrick, P. W. (1999). A review of self modeling and related interventions. *Applied and Preventive Psychology*, 8(1), 23–39. [https://doi.org/10.1016/S0962-1849\(99\)80009-2](https://doi.org/10.1016/S0962-1849(99)80009-2)
- Dowrick, P. W. (2003). *Video futures user's guide*. Creating Future Inc.
- Dowrick, P. W. (2012). Self model theory: Learning from the future. *Wiley Interdisciplinary Reviews: Cognitive Science*, 3(2), 215–230. <https://doi.org/10.1002/wcs.1156>
- Dowrick, P. W., Back, L. T., & Mills, N. C. (2015). School failure and school success. In T. P. Gullotta, R. W. Plant, & M. A. Evans (Eds.), *Handbook of adolescent behavioral problems: Evidence-based approaches to prevention and treatment* (pp. 395–414). Springer Science + Business Media. https://doi.org/10.1007/978-1-4899-7497-6_21
- Edwards, N. M., & Lambros, K. M. (2018). Video self-modeling as a reading fluency intervention for dual language learners with disabilities. *Contemporary School Psychology*, 22(4), 468–478. <https://doi.org/10.1007/s40688-018-0207-9>
- Egarr, R., & Storey, C. (2022). Model teachers or model students? A comparison of video modelling interventions for improving reading fluency and comprehension in children with autism. *Journal of Autism and Developmental Disorders*, 52(8), 3366–3382. <https://doi.org/10.1007/s10803-021-05217-z>
- Ewens, K. A. (2016). Exploring the effects of video self-modeling as an intervention for social interactions in young children with disabilities. *Culminating Projects in Special Education*. 20.
- Freelin, B. N., McMillan, C., Felmlee, D., & Osgood, D. W. (2023). Changing contexts: A quasi-experiment examining adolescent delinquency and the transition to high school. *Criminology*, 61(1), 40–73. <https://doi.org/10.1111/1745-9125.12320>
- Gonzales, B. R., Hagin, V., Dowrick, P. W., &

- Gros Lambert, A. (2015). Effects of various cognitive video stimulations on the measured stamina of runners. *The Sport Psychologist*, 29(4), 335-343.
- Herth, K. A. (2001). Development and implementation of a hope intervention program. *Oncology Nursing Forum*, 28(6), 1009-1016.
- Hiromitsu, Y., & Ishikura, T. (2021). Effects of learners' choice of video self-modeling on performance accuracy and perceived cognitive consistency. *Journal of Physical Education and Sport*, 21(3), 1284-1293. <https://doi.org/10.7752/jpes.2021.03163>
- Ho, T. Q., Gadke, D. L., Henington, C., Evans-McCleon, T. N., & Justice, C. A. (2019). The effects of animated video modeling on joint attention and social engagement in children with autism spectrum disorder. *Research in Autism Spectrum Disorders*, 58, 83-95. <https://doi.org/10.1016/j.rasd.2018.09.004>
- Hong, E. R., Ganz, J. B., Mason, R., Morin, K., Davis, J. L., Ninci, J., Neely, L. C., Boles, M. B., & Gilliland, W. D. (2016). The effects of video modeling in teaching functional living skills to persons with ASD: A meta-analysis of single-case studies. *Research in Developmental Disabilities*, 57, 158-169. <https://doi.org/10.1016/j.ridd.2016.07.001>
- Jennings, C. T., Reaburn, P., & Rynne, S. B. (2013). The effect of a self-modelling video intervention on motor skill acquisition and retention of a novice track cyclist's standing start performance. *International Journal of Sports Science and Coaching*, 8(3), 467-480. <https://doi.org/10.1260/1747-9541.8.3.467>
- Kamp, R. J. V. (2018). Video self-modeling, reading aloud, or silent reading: Effects of strategies on fluency. *Master's Theses & Capstone Projects*. 108.
- Kashani, F. L., Vaziri, S., Akbari, M. E., Zeinolabedini, N., Sanaei, H., & Jamshidifar, Z. (2014). The effectiveness of creating hope on distress of women with breast cancer. *Procedia - Social and Behavioral Sciences*, 159, 201-205. <https://doi.org/10.1016/j.sbspro.2014.12.357>
- Kazdin, A. E. (2016). *Methodological issues & strategies in clinical research* (4th ed.). American Psychological Association.
- Krassner, A. M., Gartstein, M. A., Park, C., Dragan, W., Lecannelier, F., & Putnam, S. P. (2016). East-west, collectivist-individualist: A cross-cultural examination of temperament in toddlers from Chile, Poland, South Korea, and the U.S. *European Journal of Developmental Psychology*, 14(4), 449-464. <https://doi.org/10.1080/17405629.2016.1236722>
- Lao, S. A., Furlonger, B. E., Moore, D. W., & Busacca, M. (2016). Learning to swim using video modelling and video feedback within a self-management program. *Australian Journal of Adult Learning*, 56(1), 53-68.
- Ledford, J. R., & Wolery, M. (2013). Procedural fidelity: An analysis of measurement and reporting practices. *Journal of Early Intervention*, 35(2), 173-193. <https://doi.org/10.1177/1053815113515908>
- Lemmon, K. H., & Green, V. A. (2015). Using video self-modeling and the peer group to increase the social skills of a preschool child. *New Zealand Journal of Psychology*, 44(2), 68-78.
- Liu, Y., Moore, D. W., & Anderson, A. (2015). Improving social skills in a child with autism spectrum disorder through self-management training. *Behaviour Change*, 32(4), 273-284. <https://doi.org/10.1017/bec.2015.14>
- Lopez, S. J., Ciarlelli, R., Coffman, L., Stone, M., & Wyatt, L. (2000). Diagnosing for strengths: On measuring hope building blocks. In C. R. Snyder (Ed.), *Handbook of hope: Theory, measures, and applications* (pp. 57-85). Academic Press. <https://doi.org/10.1016/B978-012654050-5/50006-3>
- Middlemas, S., & Harwood, C. (2020). A pre-match video self-modeling intervention in elite youth football. *Journal of Applied Sport Psychology*, 32(5), 450-475. <https://doi.org/10.1080/10413200.2019.1590481>
- Nahvzadeh, M. M., Akhavan, S., Arti, S., Qaraat, L., Geramian, N., Farajzadegan, Z., & Heidari, K. (2014). A review study of substance abuse status in high school students, Isfahan, Iran. *International Journal of Preventive Medicine*, 5(2), S77-S82.
- Nawi, A. M., Ismail, R., Ibrahim, F., Hassan, M. R., Manaf, M. R. A., Amit, N., Ibrahim, N., & Shafurdin, N. S. (2021). Risk and protective factors of drug abuse among adolescents: A systematic review. *BMC Public Health*, 21(1), 1-15. <https://doi.org/10.1186/s12889-021-11906-2>
- Normand, M. P. (2016). Less is more: Psychologists can learn more by studying fewer people. *Frontiers in Psychology*, 7(JUN), 1-4. <https://doi.org/10.3389/fpsyg.2016.00934>
- Ohtake, Y., Kawai, M., Takeuchi, A., & Utsumi, K. (2013). Effects of video self-modelling interventions on reducing task avoidance behaviours of students with autism spectrum disorders. *International Journal of Disability, Development and Education*, 60(3), 225-241. <https://doi.org/10.1080/1034912X.2013.812186>
- Ollar, C. N. (2018). Using video self-modeling to improve reading fluency in school aged children

- with specific learning disabilities. *Theses and Dissertations*. 7342.
- Omarchevska, Y., Lachner, A., Richter, J., & Scheiter, K. (2022). Do video modeling and metacognitive prompts improve self-regulated scientific inquiry?. *Educational Psychology Review*, 34(2), 1025-1061. <https://doi.org/10.1007/s10648-021-09652-3>
- Özerk, M., & Özerk, K. (2015). A bilingual child learns social communication skills through video modeling-A single case study in a Norwegian school setting. *International Electronic Journal of Elementary Education*, 8(1), 551–566.
- Park, J., Bouck, E., & Duenas, A. (2019). The effect of video modeling and video prompting interventions on individuals with intellectual disability: A systematic literature review. *Journal of Special Education Technology*, 34(1), 3–16. <https://doi.org/10.1177/0162643418780464>
- Retnowati, S., Ramadiyanti, D. W., Suciati, A. A., Sokang, Y. A., & Viola, H. (2015). Hope intervention against depression in the survivors of cold lava flood from Merapi Mount. *Procedia - Social and Behavioral Sciences*, 165, 170–178. <https://doi.org/10.1016/j.sbspro.2014.12.619>
- Robson, C., Blampied, N., & Walker, L. (2015). Effects of feedforward video self-modelling on reading fluency and comprehension. *Behaviour Change*, 32(1), 46–58. <https://doi.org/10.1017/bec.2014.29>
- Rymal, A. M., & Ste-Marie, D. M. (2016). Imagery ability moderates the effectiveness of video self modeling on gymnastics performance. *Journal of Applied Sport Psychology*, 29(3), 1–19. <https://doi.org/10.1080/10413200.2016.1242515>
- Rymal, A. M., & Ste-Marie, D. M. (2019). Feedforward self-modeling and self-regulation: It's not just for learning. *Research Quarterly for Exercise and Sport*, 90(3), 276–286. <https://doi.org/10.1080/02701367.2019.1593923>
- Saito, K., & Okayasu, T. (2014). Effects of social skills and self-esteem on resilience in university students. *The Japanese Journal of Health Psychology*, 27(1), 12–19. https://doi.org/10.11560/jahp.27.1_12
- Sen, U. (2016). Video self-modeling technique that can be used in improving the abilities of fluent reading and fluent speaking. *International Education Studies*, 9(11), 66. <https://doi.org/10.5539/ies.v9n11p66>
- Smith, J., Hand, L., & Dowrick, P. W. (2014). Video feedforward for rapid learning of a picture-based communication system. *Journal of Autism and Developmental Disorders*, 44(4), 926–936. <https://doi.org/10.1007/s10803-013-1946-0>
- Snyder, C. R. (1994). *The psychology of hope: You can get there from here*. Simon and Schuster.
- Snyder, C. R. (2000). *Handbook of hope: Theory, measures and applications*. Academic Press.
- Snyder, C. R., Harris, C., Anderson, J. R., Holleran, S. A., Irving, L. M., Sigmon, S. T., Yoshinobu, L., Gibb, J., Langelle, C., & Harney, P. (1991). The will and the ways: Development and validation of an individual-differences measure of hope. *Journal of Personality and Social Psychology*, 60(4), 570–585. <https://doi.org/10.1037//0022-3514.60.4.570>
- Sympson, S. C. (1999). *Validation of the domain specific hope scale: Exploring hope in life domains* [Unpublished doctoral dissertation]. University of Kansas.
- Tsui, G. H. H., & Rutherford, M. D. (2014). Video self-modeling is an effective intervention for an adult with autism. *Case Reports in Neurological Medicine*, 2014, 1–6. <https://doi.org/10.1155/2014/425897>
- Yolandria, R. (2019). *The effects of video modeling as a reading intervention strategy for students with deficits in reading fluency* [Unpublished doctoral dissertation]. Auburn University.
- Youn Kang, V., & Kim, S. (2020). Social stories with self-modeling to teach social play behaviors to Korean American children with autism. *Child and Family Behavior Therapy*, 42(2), 73–97. <https://doi.org/10.1080/07317107.2020.1738709>
- Young, C., Rasinski, T., & Mohr, K. A. J. (2015). Read two impress: An intervention for disfluent readers. *The Reading Teacher*, 69(6), 633–636. <https://doi.org/10.1002/trtr.1391>
- Zucco, R., Montesano, F., Esposito, S., Bianco, A., & Nobile, C. G. A. (2017). Alcohol use in early adolescence: Findings from a survey among middle school students in Italy. *Pediatric Research*, 82(6), 915–919. <https://doi.org/10.1038/pr.2017.206>

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