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The Effectiveness of the "Future Path" Psychoeducation Program through Digital Exploration on the Academic Self-Efficacy of Ninth-Grade Students

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Abstract. Ninth-grade students face important educational decisions as they prepare to continue their schooling, and doubts about their academic ability can weaken both their effort and their planning. This study examined the effectiveness of Future Path, a psychoeducation program that integrates future orientation, goal setting, and the sources of self-efficacy through guided digital exploration, among ninth-grade students at SMP Muhammadiyah 4 Palembang, Indonesia. Using a one-group pretest-posttest design, 15 purposively selected students completed the Indonesian version of the five-item General Academic Self-Efficacy Scale before and after an intervention that consisted of psychoeducation, a structured worksheet, peer sharing, and digital exploration. The Wilcoxon signed-rank test showed a significant increase from pretest (M = 9.00, SD = 2.171) to posttest (M = 22.47, SD = 1.125), with every student improving (Z = -3.420, p = .001). The effect size was large (r = .88, and .62 under a more conservative estimate). Worksheet responses showed clearer academic goals, measurable targets, concrete first steps, and greater awareness of potential obstacles. These findings suggest that Future Path can support academic self-efficacy as students prepare to leave junior high school. Studies with comparison groups and follow-up assessments would further clarify the size and durability of the program's effects.

Keywords: *Academic Self-Efficacy, Future Orientation, Goal Setting, Psychoeducation, Digital Exploration.*

A. INTRODUCTION

The ninth grade is the final year of junior high school in Indonesia, and it is the point at which students must begin deciding where to continue their education. They have to choose between senior high school and vocational school, consider which field of study they want to pursue, and prepare for final examinations. For many students, these are among the first major decisions they make about their own future. Nurmi (1991) described choices of this kind as normative developmental tasks that prompt adolescents to think about what lies ahead, yet the capacity to plan for the future develops only gradually across adolescence. Many fourteen- and fifteen-year-olds are therefore asked to make important educational decisions while the skills they need for such planning are still taking shape.

How students handle this period also depends on their academic self-efficacy, that is, their belief that they can organize and carry out the actions needed to succeed in academic tasks (Bandura, 1997). Students with stronger academic self-efficacy are more willing to take on demanding tasks, invest more effort, and keep going when they meet difficulties, and they tend to recover more quickly from failure. Students who doubt their ability often find it harder to face academic challenges and to sustain their effort when things do not go as planned. Empirical work supports this picture. In a study of 1,852 Spanish adolescents aged 12 to 19, academic self-efficacy helped explain the relationship between optimism and academic performance (Usán et al., 2022). Among 974 secondary school students in Germany, academic self-efficacy accounted for why students who coped well with everyday academic setbacks also achieved

better results in mathematics (Weißenfels et al., 2023). For students in their last year of junior high school, doubts about their own ability may therefore shape how they approach their current schoolwork as well as how they prepare for the next stage of their education.

Future orientation gives this belief a direction. Nurmi (1991) described future orientation as three linked processes. Motivation concerns what adolescents want from the future and which goals seem worth pursuing. Planning turns those goals into subgoals and concrete steps, and evaluation refers to their judgment of how likely the plans are to succeed, together with the feelings attached to that judgment. Adolescents with a stronger future orientation tend to hold clearer goals, plan more carefully, and deal with obstacles more effectively (Johnson et al., 2014). Among 388 Italian high school students, future orientation correlated positively with self-efficacy and perceived achievement, and work and career orientation predicted achievement (Bozzato, 2024). In Indonesia, measures of future orientation in the education domain have shown adequate reliability among adolescents, which supports the relevance of the construct in local school settings (Rubiyanti et al., 2021).

Goal-setting theory explains what should happen at the planning stage. Drawing on a large body of studies, Locke & Latham (2002) showed that specific and challenging goals lead to better performance than vague goals or a general instruction to do one's best. Goals work by directing attention, mobilizing effort, sustaining persistence, and prompting people to search for useful strategies. Their effect is stronger when people are committed to the goal, receive feedback, and break complex tasks into smaller steps (Locke & Latham, 2002). Locke and Latham also describe a close link with self-efficacy, since people who believe in their ability tend to set higher goals, commit to them more firmly, and look for better strategies.

Self-efficacy itself develops from four sources of information (Bandura, 1997). Mastery experience comes from one's own successes and is usually the most powerful source. Vicarious experience comes from seeing similar others succeed, verbal persuasion comes from the encouragement of people one trusts, and physiological and affective states concern how a person interprets tension or anxiety when facing a task. Pfitzner-Eden (2016) found that these sources predicted changes in self-efficacy over time among preservice teachers. In adolescence, peers become a particularly relevant source, as emotional support and reassurance from classmates are associated with how students regulate their motivation and, through it, with their grades (Villar et al., 2025).

Taken together, the three theories describe a single sequence. Future orientation gives students a direction (Nurmi, 1991), goal setting turns that direction into measurable targets and first steps (Locke & Latham, 2002), and the experiences gained while setting, sharing, and testing those targets feed the four sources of academic self-efficacy (Bandura, 1997). The Future Path program was built around this sequence, with each part of its worksheet corresponding to one stage, as shown in Figure 1.

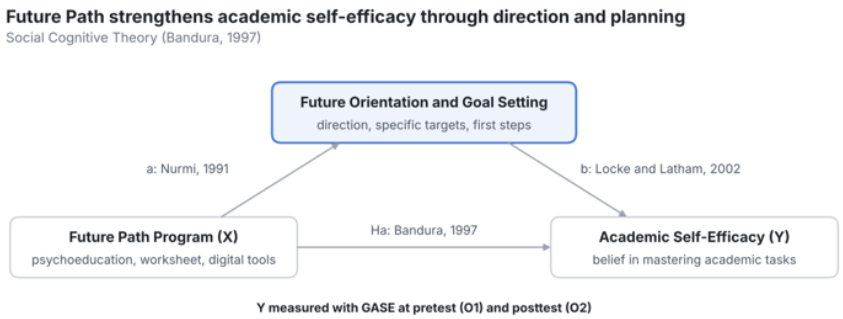


Figure 1. Conceptual Framework of the Future Path Program
Source: Developed by the Authors Based on Nurmi (1991), Locke and Latham (2002), and Bandura (1997).

Intervention research shows that self-efficacy can be strengthened, although results vary across programs. In a systematic review of interventions targeting mathematics self-efficacy, Zakariya (2022) found that effective programs either work directly on the sources of self-efficacy or build those sources into teaching methods and learning strategies. A meta-analysis of 13 experimental studies reported that psychoeducation generally produced a large effect on self-efficacy (Zahra & Yudiarso, 2024). Activities similar to those in Future Path have also shown promise. Students who assessed their own work, planned, set goals, and reflected while revising essays gained more self-efficacy for revision and wrote better essays than a comparison group (Chung et al., 2021). In Indonesia, a case study of an eighth-grade student found that psychoeducation combined with SMART goal setting and time management reduced academic procrastination (Natalia & Meiyuntariningsih, 2025).

Goal setting on its own, however, does not always produce change. Ariani (2025) delivered a five-session goal-setting training to 12 tenth-grade students in a one-group pretest-posttest design and found no significant increase in academic self-efficacy, as the gains were small and limited to a few students. Writing goals may not be enough unless students also gather evidence of their own ability, observe peers who succeed, and receive encouragement, which are the conditions Bandura (1997) placed at the center of self-efficacy change.

Today's students also grow up with smartphones and easy internet access, and the way they use these devices matters. In a study of 614 Chinese junior high school students, a stronger future orientation protected students from entertainment-oriented internet use and its association with lower achievement (Chen & Liu, 2021). Digital tools can serve planning as well. In an Italian randomized trial, career guidance activities taught by trained teachers and supported by game-based tools and an online platform increased adolescents' career exploration and adaptability (Parola et al., 2024). Students who searched YouTube for supporting material on their own reported more initiative and responsibility in learning (Supendra & Amilia, 2021), which fits the profile of self-directed learners who manage their learning context, monitor their progress, and keep themselves motivated (Loeng, 2020).

Several gaps remain. Many school programs in Indonesia rely on a single component, such as goal-setting training, and the null result reported by Ariani (2025) shows the limits of that approach. Few studies have combined future orientation, goal setting, and all four sources of self-efficacy in one brief school program, and fewer still have used the devices students already carry as a guided learning medium instead of treating them as a distraction (Chen & Liu, 2021). There is also a measurement gap. The Indonesian version of the General Academic Self-Efficacy Scale has so far been validated only with senior high school students in Lebak, Banten, and its author recommended testing it in other samples (Rismawati, 2025). Ninth graders are close in age to that group but face a different transition, and they have not yet been studied with this scale.

The urgency of this study lies in the gap between what ninth graders are asked to decide and the confidence they bring to that decision. In the participating class, an initial assessment and interviews with the homeroom teacher indicated that many students had no clear educational goal and doubted their ability to meet academic demands before graduation. Left unaddressed, this doubt may lead students to choose their next school by chance, plan very little, and give up quickly when material becomes difficult, since low academic self-efficacy is associated with weaker persistence and lower achievement (Usán et al., 2022). It is therefore worth testing whether a short, low-cost program can strengthen academic self-efficacy in this group. If it can, school counselors gain a practical tool for the transition year, and researchers gain evidence on how future orientation, goal setting, and self-efficacy operate together in early adolescence (Zakariya, 2022).

This study makes three contributions. It integrates future orientation, goal setting, and the four sources of self-efficacy into a single worksheet-based program in which each part has a clear theoretical role. It treats digital exploration with Google, YouTube Edu, and AI tools as a guided medium in which students also judge the credibility of the information they find. It also applies the Indonesian General Academic Self-Efficacy Scale to junior high school students in their transition year, a group not covered by previous validation work (Rismawati, 2025). The research question was whether the Future Path program through digital exploration is effective in increasing the academic self-efficacy of ninth-grade students at SMP Muhammadiyah 4 Palembang. Following the sequence described by Locke & Latham (2002) and Bandura (1997), the null hypothesis (H0) stated that academic self-efficacy does not differ before and after the program, and the alternative hypothesis (Ha) stated that posttest scores are higher than pretest scores.

B. METHOD

This study used a quantitative approach with a pre-experimental one-group pretest-posttest design, in which a single group was measured, received the intervention, and was measured again with the same instrument (Sugiyono, 2019). Because each student was compared with his or her own earlier score, differences between individual students did not enter the estimate of change. Shadish et al. (2002) point out that this design does not by itself exclude explanations such as history, maturation, and testing. The analysis therefore considered the size and consistency of the change alongside its statistical significance, and these alternative explanations are taken up in the discussion.

The population was the ninth-grade class IX.U1 at SMP Muhammadiyah 4 Palembang, a finite population whose members could be listed before the study began. Fifteen students were selected through purposive sampling, in which participants are chosen deliberately because they meet criteria that match the aim of the study (Etikan, 2016). Selection drew on classroom observation and short interviews about students' confidence and worries regarding their schoolwork, and students who expressed doubt about their academic ability were invited to take part. All 15 students completed both the pretest and the posttest, so there was no attrition and every case was included in the analysis.

The sample size followed the rules of thumb proposed by Roscoe and summarized by Sekaran & Bougie (2010) according to which simple experimental research with tight experimental control can be carried out successfully with samples as small as 10 to 20. The pretest-posttest design supports this kind of control, because each student is measured twice and the comparison is made within the same person. Simulation evidence shows that paired tests remain workable with very small samples and become more powerful as pretest and posttest scores become more closely related (De Winter, 2013). The sample a study needs also depends on the expected effect size, the variability of the data, the desired power, and the significance level, so a modest sample can be adequate when the expected change is substantial (Praharaj & Ameen, 2024).

The sample size also suited the research setting. Lakens (2022) describes collecting data from (almost) the entire relevant population and working within the available resources as two accepted ways of justifying a sample size. Here, the eligible students came from a single class, so the 15 participants covered the students who met the selection criteria. Methodological work on pilot intervention trials likewise recommends about 15 participants per arm when a medium standardized effect is expected (Whitehead et al., 2016).

Academic self-efficacy was measured with the General Academic Self-Efficacy Scale (GASE), a five-item unidimensional measure of students' global belief in their ability to master academic challenges, originally developed in Scandinavia (van Zyl et al., 2022). In a

longitudinal study of university students in the United States and Western Europe, van Zyl et al. (2022) found that a one-factor model fit the data well, that the scale was reliable and invariant across two measurement points, and that its scores were related to task performance.

This study used the Indonesian adaptation by Rismawati (2025), which was translated through back-translation and tested with confirmatory factor analysis on 467 senior high school students aged 15 to 18 in Lebak, Banten. The initial one-factor model did not fit ($\chi^2 = 77.214$, df = 5, RMSEA = .176), but once the measurement errors of some items were allowed to correlate, the model fit well ($\chi^2 = 5.245$, df = 3, p = .155, RMSEA = .040, CFI = .995, TLI = .983). All five items loaded positively and significantly on a single factor ($t > 1.96$), with standardized loadings from .338 to .790, and Rismawati (2025) also cited a Cronbach's alpha of .81 for the original scale. One item reads, "In general, I can solve difficult academic problems if I try hard enough."

Each item is rated on a five-point Likert scale, ranging from sangat tidak sesuai (very unlike me) through tidak sesuai (unlike me), kurang sesuai (slightly like me), and cukup sesuai (fairly like me) to sangat sesuai (very like me), with scores ranging from 1 to 5 (Rismawati, 2025). The questionnaire was administered in paper-and-pencil format at both pretest and posttest. Total scores range from 5 to 25, with a theoretical midpoint of 15. Higher scores reflect greater academic self-efficacy. The Indonesian version of the scale was examined by Rismawati (2025), who reported evidence of construct validity.

The program was delivered in the classroom. After the pretest, students attended a short psychoeducation session on future orientation, goal setting, and the role of self-belief in learning, illustrated with examples from daily school life. They then completed a four-part worksheet titled Peta Masa Depanku (My Future Path). Part 1 follows the motivation stage of future orientation (Nurmi, 1991). Students wrote at least three academic achievements they hoped for, searched the internet for information about one of them, and chose the goal that motivated them most, explaining why. Part 2 follows the planning stage and the principles of goal setting (Locke & Latham, 2002). Here students wrote targets with numbers or clear measures, looked for strategies in at least two digital sources, judged which source was more credible, listed at least three simple steps, and set the day they would begin.

Part 3 was built on the four sources of self-efficacy (Bandura, 1997). Students recalled past successes and present strengths as mastery experiences and explored stories of people who had achieved similar goals as vicarious experiences. After taking the worksheet home to continue exploring, students engaged in peer sharing with their seatmates the following day. They discussed their targets and plans, exchanged ideas and suggestions, and encouraged and motivated each other. This activity was intended to support verbal persuasion. Students also identified obstacles that often disrupted their focus and considered ways to manage them, addressing the role of affective states in self-efficacy. They then completed Part 4, a reflection and commitment section that followed the evaluation stage of future orientation (Nurmi, 1991). The posttest was administered at the next meeting using the same scale.

Digital exploration served as a learning medium and was not measured as a separate variable. Students used Google, YouTube Edu, and AI tools to find information about schools, learning strategies, and the skills they would need. They were also asked to compare sources by considering who produced the information, whether it made sense, and whether it agreed with other sources. This use of digital tools reflects a view of learners as people who manage their own learning context, monitor their progress, and maintain their own motivation (Loeng, 2020).

Data were analyzed using SPSS. Descriptive statistics included the mean, standard deviation, minimum, maximum, median, and interquartile range for pretest and posttest scores. Normality was assessed using the Shapiro-Wilk test, which is commonly used for small

samples (Mishra et al., 2019). The pretest scores did not meet the normality criterion (W = .870, p = .034), whereas the posttest scores did (W = .885, p = .057). Therefore, the Wilcoxon signed-rank test was used to compare pretest and posttest scores (Mishra et al., 2019). Statistical significance was set at p < .05.

Effect size was calculated using the formula r = |Z|/√N (Tomczak et al., 2014). The primary calculation used N = 15, corresponding to the number of paired cases. A second calculation used N = 30, representing the total number of pretest and posttest observations. Effect sizes were interpreted using Cohen (1992) guidelines, with values of .10, .30, and .50 indicating small, medium, and large effects, respectively.

C. RESULTS AND DISCUSSION

1. Descriptive Statistics

Table 1 presents the descriptive statistics for academic self-efficacy scores of the 15 students before and after the program, including the mean, standard deviation, median, interquartile range, and 95% confidence intervals for the means.

Table 1. Descriptive Statistics of Academic Self-Efficacy Scores

Statistic	Pretest	Posttest
N	15	15
Minimum	6	20
Maximum	14	24
Mean	9.00	22.47
Standard deviation	2.171	1.125
Median	9.00	23.00
Interquartile range	2	1
95% CI of the mean	7.80 to 10.20	21.84 to 23.09
Skewness (SE = 0.580)	1.063	-0.772

Source: SPSS Output Processed by the Authors (2026).

The mean academic self-efficacy score increased from 9.00 before the program to 22.47 afterward, a difference of 13.47 points. The median showed a similar increase, from 9 to 23. On a per-item basis, the mean rose from 1.80 to 4.49, shifting from responses closer to “unlike me” toward “very like me”. This pattern was consistent across all 15 students. Every pretest score was below the theoretical midpoint of 15, whereas every posttest score was above it. In addition, each student's posttest score exceeded their own pretest score, with all 15 students showing gains. The smaller posttest standard deviation also indicates that scores were more closely grouped after the program. However, the highest posttest score was 24 out of 25, suggesting that some scores were approaching the upper limit of the scale. These descriptive findings show a clear improvement in scores following the program, although the one-group design does not establish that the program alone caused the change.

2. Normality Test

Normality was examined with the Shapiro-Wilk test because the sample contained fewer than 50 respondents.

Table 1. Shapiro-Wilk Normality Test

Variable	Statistic (W)	df	Sig.
Pretest	0.870	15	0.034
Posttest	0.885	15	0.057

Source: SPSS Output Processed by the Authors (2026).

The significance value was .034 for the pretest and .057 for the posttest, which indicates that the pretest scores departed from a normal distribution, whereas the posttest scores did not.

The stem-and-leaf plot showed two high pretest scores, 13 and 14, that pulled the distribution to the right, consistent with the positive skewness in Table 1. Since not all of the data were normally distributed, hypothesis testing continued with a nonparametric test, the Wilcoxon signed-rank test. Using the Shapiro-Wilk test in a study with a small sample is in line with the recommendation that it is more appropriate than other normality tests when samples are small (Khatun, 2021).

3. Wilcoxon Signed-Rank Test

Academic self-efficacy scores were higher at posttest than at pretest, with the scores increasing across all 15 participants.

Table 3. Results of the Wilcoxon Signed-Rank Test for Posttest Compared with Pretest

Component	N	Mean Rank	Sum of Ranks
Negative ranks (posttest < pretest)	0	0.00	0.00
Positive ranks (posttest > pretest)	15	8.00	120.00
Ties (posttest = pretest)	0		
Total	15		
Z	-3.420		
Asymp. Sig. (2-tailed)	0.001		

SPSS output processed by the authors (2026).

The Wilcoxon signed-rank test showed a significant difference between the two measurements ($Z = -3.420$, two-tailed $p = .001$). The one-tailed p-value for the directional hypothesis was below .001, consistent with the exact probability of observing this pattern under H_0 (1 in 32,768, $p < .001$). Since $p < .05$, H_0 was rejected, indicating that academic self-efficacy was significantly higher after the Future Path program than before it.

4. Effect Size

Based on the number of paired cases, the effect size was $r = 3.420 / \sqrt{15} = 0.883$. Based on the total number of observations, the more conservative estimate was $r = 3.420 / \sqrt{30} = 0.624$. Both values exceed the .50 threshold for a large effect (Cohen, 1992). Effect sizes matter here because a p value says little about the practical size of a change, particularly in small samples (Serdar et al., 2021). The standardized mean change leads to the same conclusion. The standard deviation of the difference scores cannot exceed the sum of the two standard deviations (2.171 + 1.125 = 3.296), so the within-person effect was at least $dz = 13.47 / 3.296 = 4.09$, even under the least favorable pairing of scores. A sensitivity analysis showed that 15 paired observations give 80% power to detect an effect of about $dz = 0.68$ at a one-tailed α of .05, which places the observed change well above the smallest effect this design could reliably detect (Lakens, 2022).

5. Worksheet Responses

Students written answers help explain the change in scores. In Part 1, they named goals such as ranking in the top three of the class, entering a preferred senior high school or university, scoring above 90 on examinations, doing well in the national academic ability test (TKA), and reciting one juz of the Qur'an in a single sitting. They also searched online for information related to one of these goals, such as admission requirements or ways to prepare for examinations. In Part 2, many turned their goals into measurable targets, for example increasing Qur'an memorization from two to four juz or reaching scores above 90 in mathematics, science, social studies, Mandarin, English, and Indonesian. They listed steps such as finishing assignments on time, reviewing material after class, practicing questions every week, and studying for one to two hours a day, and most set a start date such as "tomorrow" or

"next week." This movement from general wishes to measurable targets is the shift that goal-setting theory expects to raise effort and persistence (Locke & Latham, 2002).

In Part 3, students listed strengths such as confidence, courage to ask questions, carefulness, diligence, and persistence. They found success stories of students who entered their target schools through daily practice or by keeping report-card averages above 90, and they received encouragement from classmates during peer sharing. One student recorded a friend's words: "I'm sure you can get into your favorite high school because you are smart, you just need to be consistent." The most frequent obstacles were mobile phone use and difficulty staying focused, followed by impatience with practice questions, fatigue, and gaps in understanding the material. Students planned to keep their phones out of reach, follow a study schedule, or move to a quieter place, and one explained, "I study in my room, so I leave my phone in the living room so I won't play with it." These answers touch each of the four sources of self-efficacy described by Bandura (1997).

In Part 4, students reflected that the wish to learn has to come from within, that short but regular study works better than long and unfocused sessions, and that a schedule helps them reach their targets. One student wrote, "I am more convinced that effort will not betray results. Every journey needs a process," and others said they felt better prepared for the TKA and the graduation examinations, with one noting that the worksheet meant they "no longer panic about the TKA." Their commitments included using their phones less while studying, completing assignments, and continuing to study when tired. Confidence in carrying out these commitments ranged from "not yet sure" to "very sure," and one student asked for further guidance, which fits evidence that self-efficacy develops gradually as its sources accumulate (Pfitzner-Eden, 2016).

The results answer the research question. Academic self-efficacy increased after the Future Path program, every participant improved. One likely reason is that the program first gave students a direction. Before the program, most students had no concrete educational goal, and the worksheet asked them to state goals, look for information about them, and choose the one that mattered most. This corresponds to the motivation and planning processes described by Nurmi (1991) and agrees with findings that future orientation and self-efficacy are positively related in adolescence (Bozzato, 2024).

Several features of the data make this result more convincing than a significant p value alone. The change was consistent, since all 15 students improved and none stayed the same. It was also substantial, because every student gained at least six points and the effect remained large under the more conservative estimate. No participant dropped out, so attrition, a common threat to internal validity (Shadish et al., 2002), played no part in the result. The worksheet answers also moved in the direction the theory predicts, from vague wishes to measurable targets and planned first steps, which ties the rise in scores to the content of the program and not merely to repeated completion of the questionnaire.

The planning stage of the worksheet probably added a sense of control. When students turned "I want good grades" into a number, a set of steps, and a start date, preparing for the next school became a smaller and more manageable task. Locke & Latham (2002) explain that specific goals reduce uncertainty about what to do and make progress easier to judge, and finishing a clear plan can itself act as a small mastery experience. Chung et al. (2021) observed a similar pattern when planning, goal setting, and reflection were built into a writing task.

Peer sharing may also have contributed. Hearing the plans of classmates in a similar situation, and being encouraged by them, combines vicarious experience and verbal persuasion in one short activity (Bandura, 1997). Peer support is related to how adolescents regulate their motivation (Villar et al., 2025), and changes in the sources of self-efficacy have been shown to predict changes in self-efficacy itself (Pfitzner-Eden, 2016).

The worksheet may have helped students engage more actively with the material. Instead of only listening to the explanations, they were asked to write down their thoughts, set goals, and reflect on their own experiences. Through these activities, students could relate the material to their personal goals and think about the steps they could take to achieve them. This can be considered alongside the findings of (Ariani, 2025). In that study, goal-setting training with a similar design and sample size did not result in a significant change. In the present study, an increase in academic self-efficacy was observed after Future Path, even though goal setting was only one part of the program. However, the two studies cannot be directly compared because they involved different samples, settings, and instruments. The findings nevertheless provide a point of discussion in relation to Zakariya's (2022) conclusion that programs to improve self-efficacy need to consider its different sources rather than rely on a single technique.

Digital exploration likely supported these processes by giving students quick access to admission requirements, study strategies, and success stories, while also asking them to judge the credibility of what they found. Phones, which students themselves named as their main distraction, became planning tools, in line with evidence that future orientation can steer students away from entertainment-oriented internet use (Chen & Liu, 2021) and that structured guidance can turn exploration into career planning (Parola et al., 2024). Because digital exploration formed part of the whole program, its separate contribution was not estimated in this design.

The size of the gain also calls for caution. A rise of 13.47 points on a scale with a 20-point range after a brief program is unusually large. Without a control group, history and maturation cannot be ruled out, since lessons, teacher encouragement, or the approach of final examinations may have influenced students during the same period (Shadish et al., 2002). Pre-post designs without a comparison group cannot separate the program effect from these concurrent changes (Miller et al., 2020). The sample of 15 students from one class, chosen by purposive sampling, also limits generalization to other ninth graders.

Several measurement issues may have inflated the change. Students answered the same five items twice within a short interval, so a testing effect is possible. The pretest may also have sensitized students to the content of the program and made them more responsive to it, an interaction between pretest and treatment that limits how far the result applies to students who are not pretested. Because participants were selected for low confidence, part of the rise may reflect regression toward the mean.

The program was delivered and measured by the same person, and students may have answered in ways they felt were expected or simply responded to being observed, which can bias self-reports (Latkin et al., 2017) and is a known effect of research participation (McCambridge et al., 2014). Finally, no follow-up measure was taken, so it is not yet known whether the gain lasts.

D. CONCLUSION

This study examined whether the Future Path psychoeducation program, delivered through guided digital exploration, could strengthen the academic self-efficacy of ninth-grade students. The findings suggest that it can, at least in the short term. Students who had doubted their ability left the program more confident about meeting academic demands, and their written answers show how that confidence took shape. Students also named the obstacles they expected and planned simple ways around them, such as leaving their phones in another room while studying. Having a clear goal and a plan they could follow appears to have given them more reason to trust their own ability.

Because the program is short and centered on a worksheet that students fill in themselves, schools could fit it into regular classroom or homeroom activities. Goal setting works best when people get feedback on their progress, so brief follow-up sessions in which students review and adjust their targets may help the change last, particularly for those who still feel unsure about keeping their commitments. Practice in comparing and judging online sources also deserves a regular place in study and career planning activities, since structured exploration can support adolescents' career development.

Further research should include a quasi-experimental or randomized design with a comparison group, a larger sample from several schools, a follow-up measurement some weeks after the program, and a reliability analysis of the Indonesian scale among junior high school students. Studies that compare the full program with versions that leave out digital exploration or pair sharing could also show which component contributes most to the change.

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