



MANTAP SPANDA: The Influence of Microsite-Based Student Talent Management on Student Achievement and Social Skills

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Abstract

This study investigates the impact of MANTAP SPANDA program (Microsite-Based Student Talent Management) on students' achievement and social skills at SMPN 2 Pasuruan. This study also tries to find out the mechanisms, perceptions, and experiences of school stakeholders in its implementation. The research used a mixed methods approach with a sequential explanatory design. Quantitative data were collected through questionnaires from students who are involved in extracurricular activities and quality development programs and the data of the school achievement within three years. Qualitative data were obtained through in-depth interviews with the vice headmaster, extracurricular coaches, and students. The documentations of the process were also used to give better description. Quantitative data analysis used MANOVA with Pillai's Trace criterion, while qualitative data analysis employed the Miles and Huberman model. The result of the data analysis using Pillai's Trace criterion (0.648, $F = 5.155$, $p < 0.001$), indicating a moderate-to-large simultaneous effect. Tests of Between-Subjects Effects revealed that the program significantly influenced both variables, with a larger effect on social skills ($\eta^2 = 0.495$, $F = 10.559$, $p < 0.001$) compared to achievement ($\eta^2 = 0.408$, $F = 7.414$, $p < 0.001$). Achievement trend data showed an annual increase in the number of awards received. The data of the student's achievements was also described in a trend analysis. The results suggested that the implementation of the MANTAP SPANDA program affected student achievement. The program also influenced students' social skills. The program's influence on social skills was stronger compared to its influence on achievement. Achievement trend data showed there was an increase in the number of awards from year to year. Qualitative findings revealed that the implementation mechanism operated through four stages: talent mapping, intervention, training, and impact evaluation. Stakeholders' perceptions of the program were positive, particularly because it is easy to access, enhance data transparency, and improve the coordination among stake holders. The program also helped students to manage their achievement documentation and develop social skills in terms of their responsibility, discipline, and collaboration. The challenge of this program is the digital skill gap of few teachers to make use of it. This study concludes that the MANTAP SPANDA program has been proven to impact student achievement and social skills at SMPN 2 Pasuruan. The program is recommended to be developed, especially about the needs of training for coaches who are not familiar with this digital innovation. Other schools are recommended to adopt and develop this program in their school talent management.

Keywords: Talent management, extracurricular, microsite, student achievement, social skills

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INTRODUCTION

مقدمة

Schools are entrusted with students who have various talents and skills. There are students who have talents in sport, art, public speaking, and others. Some of them were champions of

various competitions. Schools, as educational institutions, are given with students who have various potentials that must be developed through their studying periods within three years. As Griful-Freixenet et al. (2021) emphasized, student diversity must be the initial point in designing learning experiences. A systematic transformation through intrapersonal and environmental catalysts is needed in the talent development so that natural abilities can be altered into superior, measurable competencies. This aligns with Gagné (2020), whose Differentiated Model of Giftedness and Talent (DMGT) states that giftedness (natural potential) does not always become talent (actual achievement). Furthermore, according to Subotnik et al. (2023), talent development as a framework for gifted education emphasizes the importance of systematic environmental support to optimize student potential. This argument is also reinforced by a recent UNESCO report (2025) emphasizing that differentiated learning approaches—which adapt instruction to students' individual needs, interests, and learning styles—are key to creating inclusive and responsive educational environments that accommodate learner variability to boost both students' potentials and achievement.

Students' achievement in SMPN 2 Pasuruan still needs more attention. As we know, school achievement is an important branding instrument that functions as a benchmark for the community in choosing the best school for their kids. It means parents will trust a certain school as the institution to educate their kids when they know the school has achieved lots of achievement. According to Laily & Sholeh (2022) and Nuseir & El Refae (2022), a school's image built through student achievements functions as a unique identity that distinguishes the school from its competitors. At SMPN 2 Pasuruan, data obtained from the student affairs section shows that in 2024, students achieved 59 awards from various competitions. Although quantitatively there are 59 awards, when compared to the total population of 581 students, the ratio of student involvement in achievements is only around 10%. This indicates there is 'hidden talent' that has not been accommodated because of improper talent management. The school committee members urged that the school increase the student's achievement both quantitatively and qualitatively. Previously, the school relied on manual documentation using spreadsheets and paper-based records, which proved inefficient due to fragmented data storage across different coaches and coordinators. Without real-time monitoring, talent identification was often delayed, and student progress could not be tracked systematically. This fragmented approach also hindered coordination among stakeholders, making it difficult to match students with appropriate competition opportunities or training programs.

The poor students' social skills, furthermore, are regarded as the second problem at school. It is not only about becoming the winners, but the characters of the students that should be focused on. It still needs more improvement through self-development activities, including quality development and extracurricular. It is in line with Soeharno (2021) that stated the orientation of the education is not only about transforming knowledge but should be conducted in the character building of the students through a proper habituation. The initial observation indicated that there was a decline in the students' persistence to join the training sessions. It reflects the low resilience and ability to collaborate among students. It is in contrast with Soeharno (2021) that states the concept of habituation is strengthening the resilience and collaboration among the pupils which can only be obtained in the structured and continuous training.

The school then created a digital-based talent management innovation through a microsite platform. This is suitable with the school's vision of realizing the students who own Pancasila profile, global insight, great achievement, and an environmentally cultured character.

Apremedian et al. (2025) found that microsites can effectively serve as a scalable alternative to formal Learning Management Systems (LMS). While numerous studies have examined talent management in educational settings, most have focused on conventional LMS or complex applications that require substantial infrastructure, technical expertise, and financial investment. What distinguishes this study is its focus on a microsite-based talent management system at the junior high school level, which offers distinct advantages in terms of cost-effectiveness and accessibility compared to heavyweight LMS platforms. Unlike previous manual or Excel-based systems that failed due to fragmented data storage, lack of real-time monitoring, and limited coordination among coaches, the microsite provides an integrated, low-cost, and user-friendly solution that does not demand extensive digital infrastructure. This research aims to investigate whether there is an influence of this microsite-based talent management on student achievement and social skills. This research applied a mixed-methods approach. It is important, as quantitative data provides statistical evidence of the program's success, while qualitative data explains 'why' and 'how' those results occurred (Creswell & Plano Clark, 2018)

Based on the background, the objectives of this study are to analyze (1) the influence of the implementation of the MANTAP SPANDA program on students' achievement at SMPN 2 Pasuruan. (2) The influence of the implementation of the MANTAP SPANDA program on student social skills at SMPN 2 Pasuruan. (3) how the program is implemented through its mechanisms and stages, how stakeholders perceive its benefits and challenges, and what experiences students and coaches gain during its implementation at SMPN 2 Pasuruan.

METHOD

منهج

Research Design

This study used a mixed-methods approach with a sequential explanatory design (Creswell & Plano Clark, 2018). This approach was chosen because it incorporates both quantitative and qualitative in a study to obtain a deeper understanding comprehensively about the problems that are being investigated. The quantitative phase was conducted first to identify statistical patterns and relationships, followed by the qualitative phase to explain and deepen the quantitative findings contextually.

Research Site and Participants

The research was conducted at SMPN 2 Pasuruan from August to December 2025. The quantitative population was 579 students involved in 12 extracurricular activities and 3 quality development programs. Using the Slovin formula ($e=0.05$), a minimum sample of 237 was calculated, and 295 students became the final sample. Qualitative participants were selected purposely, including 1 vice principal, 5 extracurricular coaches, and 5 student representatives. The object of the research is MANTAP SPANDA. It is an educational management innovation which is based on digital development through a microsite as an integrated medium to identify, map, develop, monitor, and evaluate student potential and achievements systematically. The program operates through four main stages: (1) Talent mapping, (2) Intervention, (3) Training, and (4) Impact evaluation.

Variables and Instruments

The independent variable of this research was the implementation of the MANTAP SPANDA program, measured through adoption rate, user perception, and collaboration level. The dependent variables were student achievement (quantity of awards, quality of competition level,

diversity of fields, and consistency of achievement) and social skills (discipline, commitment and persistence, collaboration and teamwork, and reporting responsibility). Quantitative data were collected using a 5-point Likert scale questionnaire tested for validity and reliability (Cronbach's $\alpha = 0.857$). The social skills instrument was self-developed based on theoretical frameworks of social skills in educational contexts, particularly adapting indicators from the Behavioral, Emotional, and Social Skills Inventory (BESSI) (Soto et al., 2022) and incorporating relevant dimensions from Soeharno (2021) regarding character building through habituation. The instrument comprised 20 items distributed across four dimensions: discipline (5 items), commitment and persistence (5 items), collaboration and teamwork (5 items), and reporting responsibility (5 items). Content validity was established through expert judgment by two educational psychology lecturers, and construct validity was confirmed through exploratory factor analysis (EFA) with factor loadings ranging from 0.512 to 0.798, all exceeding the minimum threshold of 0.30 (Hair et al., 2019). Reliability was confirmed with Cronbach's Alpha of 0.857 for the overall instrument, with subscale reliability coefficients ranging from 0.781 to 0.843. The school achievement data was also collected from the student's affair documents and documentations to be analyzed further using trend analysis. The researcher attended some meetings to explain and spread the questionnaires which are made in the google forms. Qualitative data were collected through in-depth interviews, observation, and documentation studies.

Data Analysis

Quantitative data analysis used MANOVA (Multivariate Analysis of Variance) with Pillai's Trace as the main criterion, which is robust against violations of homogeneity assumptions (Olson, 1976). Qualitative data analysis followed the Miles and Huberman model: data reduction, data display, and conclusion drawing. Integration of both data types was performed to explain the statistical results with narrative depth. The qualitative phase involved semi-structured in-depth interviews with each participant, with durations ranging from 35 to 55 minutes per session. Interviews were conducted in two rounds to allow for member checking and deeper exploration of emerging themes. Data saturation was determined using the principle of thematic saturation (Guest et al., 2020), whereby data collection continued until no new themes or information emerged from the interviews. Saturation was achieved after 9 interviews, with an additional 2 interviews conducted to confirm that no further themes appeared. Observations were conducted during extracurricular training sessions and quality development program activities over a period of two months. Documentation studies included program reports, student achievement records, and microsite usage logs.

This research involved students who were minors (aged 12-15 years), thus strict ethical protocols were implemented. Prior to data collection, formal approval was obtained from the school principal, and written informed consent was secured from the parents or legal guardians of all participating students. The informed consent form clearly explained the research objectives, data collection procedures, confidentiality protections, voluntary participation rights, and the participants' freedom to withdraw at any time without consequence. Additionally, verbal assent was obtained from the students themselves before questionnaire administration and interviews. All data were anonymized using identification codes to protect participant identities, and data were stored securely with access limited to the research team. The research procedures were reviewed and approved by the school's ethics committee prior to implementation.

RESULT نتائج

Quantitative Findings

The descriptive statistics showed positive perceptions of the program. The MANOVA assumption tests indicated that although normality and homogeneity of variance-covariance were not fully met, MANOVA is robust, especially when using Pillai's Trace with a large sample ($n=295$). Bartlett's Test of Sphericity was significant, confirming the correlation between dependent variables and justifying the use of MANOVA.

Table 1. Multivariate Test Results

Effect	Pillai's Trace	F	Hypothesis df	Error df	Sig.
Intercept	0.997	16012.775	50	538	< 0.001
Mantap spanda	0.648	5.155	50	538	< 0.001

The multivariate test showed a significant simultaneous influence of the MANTAP SPANDA program on achievement and social skills (Pillai's Trace = 0.648, $F = 5.155$, $p < 0.001$).

Table 2. Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Mantap spanda	Achievement (Y1)	965.997	25	38.640	7.414	< 0.001	0.408
Mantap spanda	Social Skills (Y2)	843.637	25	33.745	10.559	< 0.001	0.495

The univariate tests revealed that the MANTAP SPANDA program significantly influences student achievement ($F = 7.414$, $p < 0.001$, $\eta^2 = 0.408$) and social skills ($F = 10.559$, $p < 0.001$, $\eta^2 = 0.495$). The effect size for social skills was larger, indicating a stronger influence.

Analysis of achievement trend data from 2023 to 2025 showed a consistent increase from 43 awards (2023) to 59 (2024) and 81 (2025). If it is compared with the number of awards achieved in 2023, there was an increase of 34 awards or 79.07 %. The increase indicated that the strategy has good impact on the student achievement as shown in the trend analysis. It can be concluded that the increase of the percentage is almost double fold of the 2023 achievement number. The gradual increase indicates that the program gets better each year.

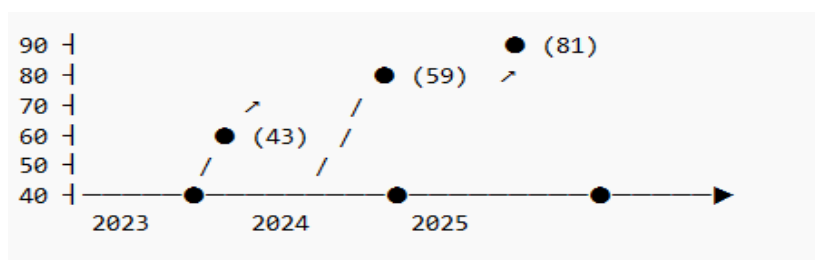


Figure 1. Achievement Trend Analysis

However, this positive trend should be interpreted thoroughly, as several external factors may have contributed to the increase. During the 2023-2025 period, the local education department introduced new competition programs and expanded the types of competitions available at the district level. Additionally, the school added two new extracurricular activities during this period, which may have increased student participation opportunities. These external variables were not controlled in this study and represent a limitation that should be

acknowledged. While the MANTAP SPANDA program appears to have played a significant role in facilitating and documenting student achievements, the observed increase cannot be attributed solely to the program without considering these contextual factors.

Qualitative Findings

The result of the interview with the respondents revealed that the MANTAP SPANDA implementation mechanism involved four stages. The first stage, talent mapping, is done by conducting digital interest and talent tests to all seventh-grade students at the beginning of the academic year. The vice principal stated "We use an online platform where students self-report their interests, and we also collect data from elementary school report cards and teacher recommendations." The second stage, intervention and supporting data provision, involves making individual student profiles on the microsite that include talent categories, initial skill levels, and development goals. The third stage, structured training implementation, consists of extracurricular schedule each week, progress review each month, and talent showcases. Coaches or students assigned uploaded attendance records, activity documentation, and skill progression notes directly to the microsite. The final stage, impact and outcome monitoring, involves evaluation each semester where all student achievements—whether at school, district, provincial, or national levels—are recorded in the microsite. The coaches and the vice principal uploaded certificates, awarding photos, and the achievement description data in the platform.

The Vice Principal of Student Affairs, Mr. Arif A.J, stated that "this program is very helpful in monitoring talent development because before this we relied on paper archives and fragmented Excel files. Now we can see in real-time which students are active, which coaches are conducting sessions, and what achievements have been obtained." Coaches admitted that the microsite platform makes reporting and documentation simpler. One sports coach commented, "previously, I had to write manual reports every month. Now I just upload photos and notes directly from my phone after each practice session. The system automatically provides progress reports for each student." Students really undergo a significant transformation in extracurricular management. A ninth-grade student participating in the science club stated, "Previously, our club activities were disorganized. Sometimes practices were cancelled without notice, and nobody knew who was responsible for what. Now everything is scheduled on the microsite, and we can see our attendance records and achievement targets."

The challenge of the programs is also found in the research. There was a digital gap skill among the coaches. One senior coach stated that they could not use the microsite platform because they are not good at digital skill. They asked the students to do this for them or just simply send reports to the vice principal via WhatsApp instead of using the microsite directly. This resistance was not merely a matter of technical inability but also reflected a deeper discomfort with digital transformation. As one senior coach with over 20 years of teaching experience explained, "I have been coaching for two decades using my own methods. This new system feels like extra work. I don't understand the dashboard, and I'm afraid I might delete important data or make mistakes that could affect student records." Another coach added, "The platform is designed for younger teachers who grew up with technology. For us, it's like learning a new language. I prefer to write everything in my notebook and then ask my student assistant to input it later." This digital skill gap created an additional administrative burden on students who had to assist their coaches, and in some cases, led to incomplete or delayed data entry. The vice principal acknowledged this issue, stating, "We have tried to provide training sessions, but some senior coaches still find it difficult. We are now considering a simplified version of the platform with fewer features specifically for coaches who are not tech-savvy."

The Influence of MANTAP SPANDA on Student Achievement

The result of this research supported the theories of talent management proposed by Hartono & Wijaya (2021) and Nugroho & Sari (2022), which stated that systematic and structured talent management can ensure talented individuals to be well developed. Wibowo & Prasetyo (2023) stated that early identification of student potential, provision of development programs according to interests and talents, and continuous monitoring and evaluation are essential to the improvement of the students' achievement. The MANTAP SPANDA program explains these three principles through digital tools that enable systematic identification (initial mapping), personalized development pathways, and transparent documentation. The statistical data empirically support these theoretical claims.

These results also support the result of the research conducted by Rahmawati & Utami (2024), who revealed that student talent and interest management effectively increases learning motivation and achievement in secondary schools. Their study, conducted in urban East Java, reported effect sizes similar to those found in the present research, suggesting that talent management interventions produce consistent benefits across different regional contexts. Hidayat & Firmansyah (2023) also reported that directed talent development through extracurricular activities enhances students' non-academic achievement, including sports, arts, and leadership competitions. Their qualitative findings mirror the present study's results regarding the importance of structured coaching and regular performance monitoring. Specifically, this finding strengthens the research of Putri & Nugroho (2025) that digital portfolios are effective as tools for monitoring and evaluating student talent development. Their study demonstrated that digital documentation increases accountability and motivation, as students can see their own progress over time.

The achievement trend data showing consistent improvement over three years indicates that the structured coaching and more organized data management have had a cumulative positive impact. The increase from year to year demonstrates that the MANTAP SPANDA program contributes significantly to enhancing student achievement, particularly when combined with motivated coaches and supportive school leadership.

The Influence of MANTAP SPANDA on Student Social Skills

This finding aligns with contemporary perspectives on social skills development proposed by Sari & Wijayanti (2022) that emotional and social competencies are not fixed traits but rather learnable capabilities that respond to environmental conditions. In the context of MANTAP SPANDA, features such as digital attendance, activity documentation, and periodic reporting create mechanisms that indirectly shape habits of discipline, commitment, and responsibility. When students know that their attendance is recorded, their progress is documented, and their contributions are visible to school leaders, they internalize norms of accountability that generalize beyond the extracurricular context to classroom behavior and peer interactions.

Research by Lestari & Purnomo (2024) found that structured extracurricular programs significantly improve students' communication and collaboration skills. Their study of junior high school students participating in talent development programs reported improvements in negotiation, conflict resolution, and teamwork abilities. The MANTAP SPANDA program creates similar opportunities for social skill development through structured group activities, shared goals, and collective performance monitoring. Prasetyo & Handayani (2023) developed a

comprehensive framework for measuring social skills that includes communication skills, individual responsibility, responsibility toward groups, as well as student cooperation and competition. All these aspects are facilitated by the MANTAP SPANDA platform, which requires students to coordinate with teammates, communicate with coaches, take responsibility for updating their achievement portfolios, and compete fairly within transparent rules.

The stronger influence on social skills compared to achievement indicates that the program has been particularly successful in creating behavioral changes through structured oversight mechanisms. This differential effect may be explained by the fact that social skills are practiced and reinforced in every extracurricular session, whereas achievement outcomes depend on external competition opportunities that occur less frequently. Students reported feeling more empowered and involved, with clearer organizational structures in their extracurricular activities. One student stated, "Before the microsite, I didn't know what my teammates were doing. Now we have a shared calendar and task assignments. I feel more responsible because everyone can see my progress." This sense of visibility and accountability is a key mechanism through which digital talent management platforms influence social skill development.

Mechanisms, Perceptions, and Experiences of Stakeholders

This finding supports the contemporary model of talent development proposed by Hidayah & Mulyono (2024) in their Digital Talent Management Framework for Schools. Their model emphasizes that natural potential does not automatically become demonstrable achievement. Intrapersonal catalysts (such as motivation, perseverance, and self-confidence) and environmental catalysts (such as programs, technology infrastructure, and supportive personnel) are needed to convert potential into excellent achievement. MANTAP SPANDA acts as an environmental catalyst that provides structure, transparency, and support for the development of student talent. The microsite platform serves as both a program (systematic talent development pathway) and a provision (digital tools and resources), while the coaches and peers provide the people's catalyst.

Qualitative findings revealed that the program successfully transformed extracurricular management from a disorganized to a well-monitored state. The Vice Principal of Student Affairs acknowledged being greatly helped "because students and coaches could directly upload achievements, and achievement targets could be set annually at the beginning of each school year." This annual target-setting feature creates goal clarity and motivation, which are key intrapersonal catalysts in talent development models. Coaches found the platform facilitates easier coordination and reporting, reducing administrative burden and allowing more time for direct coaching. Students experienced a significant transformation, from disorganized to well-monitored, with data centralized and accessible. A student representative noted, "Now when a competition announcement comes, we immediately know which students meet the selection criteria because their portfolios are on the microsite."

However, challenges were identified, including preferences for automated attendance systems and variations in digital literacy among coaches. The request for automated attendance indicates that users recognize the potential for further efficiency gains through technologies such as QR code scanning or NFC tap-in systems. The digital literacy gap between younger and older coaches suggests that ongoing assistance and differentiated training approaches are needed, as noted in similar findings by Wahyuni & Santoso (2024) regarding technology adoption in

Indonesian schools. These challenges do not negate the program's overall success but rather indicate directions for continuous improvement.

CONCLUSSION | خاتمة

This study concludes that the implementation of the MANTAP SPANDA program significantly influences student achievement and social skills at SMPN 2 Pasuruan. The multivariate effect was statistically significant with a meaningful effect size, indicating that the program has practical as well as statistical significance. The program's influence on social skills is stronger compared to its influence on achievement, as evidenced by the statistical results and supported by qualitative data showing students' increased sense of responsibility, teamwork, and accountability. The implementation mechanism operates through four stages: initial mapping (digital interest-talent tests), intervention (microsite-based portfolio creation), coaching implementation (structured weekly sessions with digital documentation), and impact evaluation (semester-based achievement recording and target setting). Stakeholder perceptions of this program are overwhelmingly positive, with all interviewed parties expressing support for program continuation and expansion.

Recommendations of this study include three main directions. First, for schools, the MANTAP SPANDA program needs to be maintained and developed, particularly through the addition of automated attendance features (such as QR code scanning), expanded digital literacy assistance for coaches with differentiated training modules, and regular program evaluation meetings involving all stakeholders. Second, for future researchers, it is recommended to expand dependent variables to include measures of student motivation, self-efficacy, and parental involvement; use experimental designs with control groups to establish causal inference more rigorously; and deepen qualitative analysis through longitudinal observation of student development trajectories. Third, for education authorities at district, provincial, and national levels, this model is recommended as a best practice that can be adopted by other schools facing similar challenges in student talent identification and development. The microsite-based approach is particularly suitable for schools with limited budgets because it can be implemented using existing open-source platforms and free digital tools.

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