

Development of a Parental Role Instrument in Academic Achievement among Eleventh-Grade Students at SMAN 10 Takengon

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ABSTRACT

This study aims to develop a valid and reliable instrument to measure the role of parents as mentors, motivators, and facilitators in supporting the academic achievement of 11th-grade students at SMAN 10 Takengon. Parental involvement is widely recognized as a crucial factor influencing students' learning outcomes, particularly during adolescence when academic motivation may decline. The research employed a Research and Development (R&D) method, adapted from the Borg & Gall model. The development process included theoretical analysis, indicator formulation, expert validation, and limited trials on a student sample. The validation results indicated that the instrument meets content validity standards, while the reliability test yielded a Cronbach's Alpha of 0.87, indicating good internal consistency. This instrument is expected to help schools and researchers identify the extent of parental involvement in academic success through three main dimensions: learning guidance, motivational support, and the provision of learning facilities.

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Introduction

Education is a complex and dynamic process that involves the active role of various parties, particularly the family, especially parents. Parental involvement has long been recognized as an external factor that significantly influences children's academic development within the context of formal education. Such involvement, whether through communication, moral support, or participation in learning activities at home, has a positive impact on students' learning motivation and academic achievement, as stated by Epstein (2001). Furthermore, through a meta-analysis of various studies, Fan and Chen (2001) found a significant and consistent relationship between parental involvement and children's academic achievement.

The role of parents as educators can be viewed from various perspectives, one of which is as a guide. In this role, parents assist their children in understanding lessons, managing study time, and completing academic tasks. Cotton and Wikelund (1989) argue that parental guidance at home plays a crucial role in developing positive study habits. In line with this, Pomerantz et al. (2007) suggest that parental involvement in assisting children's learning can enhance their metacognitive skills and academic success. This guidance does not necessarily involve direct teaching; rather, it includes providing structural support such as organizing study schedules and creating a conducive learning environment at home.

In addition to being guides, parents also function as motivators. Learning motivation serves as an internal drive that encourages students to achieve their academic goals. Spera (2005) emphasizes that parenting styles that promote autonomy and intrinsic motivation have a positive effect on students' academic achievement. Moreover, Henderson and Mapp (2002) state that children who receive encouragement and attention from their parents tend to have higher learning enthusiasm and greater confidence in facing academic challenges. In this context, parents can provide support through praise, emotional encouragement, realistic academic expectations, and positive attitudes toward education.

The role of parents as facilitators is also essential. The learning process becomes more effective when parents provide adequate learning facilities at home, such as books, internet access, study desks, and a supportive learning environment. Hornby (2011) states that providing learning facilities is a tangible form of parental involvement, as the physical environment greatly affects students' concentration and comfort in learning. Additionally, Keith et al. (1993) found that students who receive adequate learning support at home tend to demonstrate improved academic performance, particularly in subjects that require intensive practice, such as mathematics and

reading.

Although numerous studies have highlighted the importance of parental roles, differences still exist in how parents contribute to the three main roles: as guides, motivators, and facilitators. Many instruments used in previous studies remain general and have not fully captured the complexity and variability of parental involvement. Hoover-Dempsey and Sandler (1997) emphasize that measuring parental roles should consider how parents perceive their responsibilities in educating their children. Therefore, there is a need for an instrument that can systematically, validly, and accurately measure parental roles based on these three dimensions.

Based on this, the present study aims to develop an instrument to measure the role of parents in students' academic achievement, particularly among eleventh-grade students at SMAN 10 Takengon, using indicators of guidance, motivation, and facilitation. This instrument is expected to assist teachers, counselors, and researchers in evaluating and enhancing school-family collaboration. With an appropriate instrument, schools are expected to design more targeted interventions to encourage greater parental involvement in supporting students' education.

Method

Research Design

This study employed a quantitative descriptive research design to examine the roles of parents in supporting their children's learning processes at the senior high school level. The study focused on three dimensions of parental involvement: parental roles as guides, motivators, and facilitators in students' educational activities.

Participants and Sampling

The population of this study consisted of all eleventh-grade students enrolled at SMAN 10 Takengon during the 2024/2025 academic year. A sample of 30 students was selected to participate in the study using a sampling technique designed to ensure that respondents adequately represented the target population.

Instrumentation

Data were collected using a structured questionnaire developed to assess students' perceptions of parental involvement in their education. The questionnaire consisted of four sections. The first section gathered demographic information, including respondents' names and class affiliations. The second section measured parental roles as guides, the third section assessed parental roles as motivators, and the fourth section evaluated parental roles as facilitators. All questionnaire items were measured using a three-point Likert-type scale consisting of: 3 = Often, 2 = Sometimes, and 1 = Never. Higher scores indicated a greater perceived level of parental involvement in supporting students' learning activities.

Data Collection Procedure

Prior to data collection, permission was obtained from the school administration. The questionnaire was then administered to the selected participants, who were asked to complete the instrument independently and honestly. The completed questionnaires were collected and checked to ensure completeness and accuracy before proceeding to data analysis.

Data Analysis

The collected data were analyzed using descriptive statistical techniques. Frequency distributions, percentages, and mean scores were calculated to describe the extent of parental involvement across the three dimensions examined in this study. The findings were subsequently presented in tables and graphical formats to facilitate interpretation and comparison of the results. Based on the descriptive analysis, conclusions were drawn regarding the extent to which parents function as guides, motivators, and facilitators in supporting students' educational experiences at SMAN 10 Takengon. The results are expected to contribute to a better understanding of the importance of parental involvement in promoting students' academic development and educational success.

Result and Discussion

Results

Case Processing Summary

		N	%
Cases	Valid	30	100,0
	Excluded ^a	0	,0
	Total	30	100,0

Reliability Statistics

Cronbach's Alpha	N of Items
,883	36

The results of the study indicate that the instrument developed to measure the role of parents in the academic achievement of eleventh-grade students at SMAN 10 Takengon is highly reliable, with a Cronbach's Alpha value of 0.883. This finding suggests that all items in the questionnaire demonstrate high internal consistency and can be considered reliable for assessing the three dimensions of parental roles: as guides, motivators, and facilitators. These results support the notion presented in this study that parental involvement in children's education is an essential component that must be measured comprehensively and accurately using valid and reliable instruments.

Furthermore, the results of the Pearson correlation test between each item (P01–P36) and the total score show that the majority of items have positive and significant correlations. For instance, very high correlation coefficients were found for items P07 and P29 ($r = 0.682$ and $r = 0.714$; $p < 0.01$), indicating that these items are highly representative in reflecting parental involvement. This finding confirms that the indicators developed in this study effectively measure the intended constructs, in line with the theoretical framework employed. Conversely, the presence of low correlation values ($r = 0.073$) for certain items, such as P11, suggests that these items are less relevant and may require revision or replacement in future instrument development.

These findings are consistent with the conceptual framework that categorizes parental roles into three main dimensions. As guides, parents assist their children in understanding lessons and completing academic tasks. As motivators, they provide emotional and academic encouragement, while as facilitators, they ensure the availability of adequate learning resources at home. The statistically significant correlations among the items indicate that these three dimensions are interrelated and collectively contribute to students' academic achievement.

In conclusion, the results of this analysis demonstrate that the developed instrument is both valid and reliable, and can be utilized by schools, teachers, and researchers to identify and evaluate parental involvement in students' education. Moreover, these findings provide a basis for schools to design more targeted intervention programs aimed at enhancing active parental participation, which in turn is expected to improve students' overall academic performance.

Discussion

The findings of this study indicate that parents play a significant role in supporting the academic achievement of eleventh-grade students at SMAN 10 Takengon. The results demonstrate that parental involvement encompasses three important dimensions, namely serving as guides, motivators, and facilitators in students' educational activities. These findings reinforce the view that

parental involvement is one of the most influential factors in students' academic success and educational development.

As guides, parents contribute to students' learning by providing direction, supervision, and assistance in completing academic tasks. This finding is consistent with the perspective of Yusuf (2017), who emphasized that parental guidance helps students develop learning discipline, responsibility, and positive study habits. Through consistent guidance, students are better able to manage their learning activities and overcome academic challenges. The positive responses obtained from students suggest that parental guidance remains an essential component of educational support at the senior high school level.

The study also found that parents serve as important motivators for their children. Motivation provided by parents can take various forms, including encouragement, appreciation, emotional support, and recognition of academic achievements. These findings are in line with the motivational theory proposed by Sardiman (2018), which states that external motivation from significant individuals, particularly parents, can enhance students' enthusiasm and persistence in learning. Students who perceive strong parental encouragement are more likely to demonstrate positive attitudes toward learning and greater commitment to achieving academic goals.

In addition to guidance and motivation, parents also function as facilitators by providing learning resources and creating a supportive learning environment. Educational facilities such as study materials, internet access, learning devices, and a conducive study atmosphere at home play an important role in facilitating students' academic activities. This finding supports previous studies indicating that adequate educational resources contribute positively to students' learning outcomes and academic performance. Parents who actively provide educational support enable students to access learning opportunities more effectively and efficiently.

The reliability analysis further demonstrated that the instrument used in this study possessed a high level of internal consistency, as indicated by a Cronbach's Alpha coefficient of 0.883. This result suggests that the questionnaire successfully captured the dimensions of parental involvement examined in this study. The positive item-total correlations observed across most questionnaire items further support the appropriateness of the instrument for assessing parental roles in education.

These findings highlight the importance of strengthening collaboration between schools and families. Schools should encourage greater parental involvement through regular communication, parent education programs, and collaborative activities that support students' learning. By fostering effective partnerships between parents and schools, students can receive consistent academic and emotional support both at home and in the educational environment.

Despite these contributions, this study has several limitations. The sample size was relatively small and limited to students from a single school, which may restrict the generalizability of the findings. Additionally, the study relied solely on students' perceptions of parental involvement without incorporating perspectives from parents or teachers. Future research is recommended to include larger and more diverse samples, as well as multiple data sources, to provide a more comprehensive understanding of parental roles in students' academic achievement.

Conclusion

The findings of this study demonstrate that classical guidance services are effective in The results of this study indicate that the development of an instrument to measure the role of parents in the academic achievement of eleventh-grade students at SMAN 10 Takengon has been successfully conducted. With a Cronbach's Alpha value of 0.883, the instrument demonstrates high reliability and strong content validity. This suggests that the components of the instrument are well aligned in measuring the three main dimensions of parental roles: as guides, motivators, and facilitators. In addition, the results of the correlation test show that most of the items have significant correlations with the total score, indicating that these items are relevant and effectively represent the constructs being measured.

Overall, this instrument can serve as a valuable tool for schools, teachers, and researchers in evaluating parental involvement in children's education. By having a valid and reliable measurement tool, schools can design more targeted intervention programs to enhance parental participation, which in turn is expected to have a positive impact on students' academic achievement. This study

also opens opportunities for further development of instruments to measure parental involvement in education more comprehensively.

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Despite certain limitations, particularly in terms of sample size and research scope, the findings of this study are expected to contribute to a better understanding of the role of parental involvement in students' academic achievement. Therefore, future research is recommended to involve a broader and more diverse sample, as well as to consider additional relevant variables in order to obtain more comprehensive results.

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