

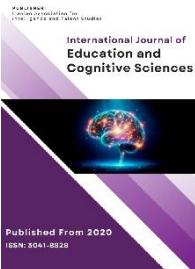


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## The Impact of Hidden Curriculum on the Development of Social Skills with the Mediating Role of School Belonging in Sixth Grade Students of Tonekabon County

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### ABSTRACT

**Purpose:** The present study aimed to investigate the impact of the hidden curriculum on the development of social skills, with the mediating role of school belonging among sixth-grade students in Tonekabon County.

**Methods and Materials:** This study was conducted using a correlational research method and structural equation modeling. The statistical population included all sixth-grade students in Tonekabon County during the 2023-2024 academic year, totaling 1,900 individuals. The research sample consisted of 321 students. Data collection tools included the Social Skills Rating System by Gresham and Elliott (1990), the Hidden Curriculum Questionnaire by Taghipour and Ghaffari (2009), and the School Belonging Questionnaire by Brown and Evans (2002). Data analysis was performed using the Kolmogorov-Smirnov test, standardized path coefficients, Sobel test, t-statistics, structural equations, and significance level ( $p < .05$ ), utilizing SPSS version 24 and SmartPLS version 3 software.

**Findings:** The findings revealed that school belonging mediates the impact of the hidden curriculum on the development of social skills ( $\beta = .735$ ,  $p < .001$ ). The hidden curriculum had a significant effect on the development of social skills ( $\beta = .916$ ,  $p < .001$ ) and school belonging (standardized path coefficient = .828,  $p < .001$ ). Additionally, school belonging significantly influenced the development of social skills (SRMR = .063,  $\beta = .831$ ,  $p < .001$ ).

**Conclusion:** The research findings indicate that school belonging plays a crucial mediating role in the impact of the hidden curriculum on the development of students' social skills.

**Keywords:** School Belonging, Hidden Curriculum, Social Skills.

## 1. Introduction

Social skills are tools that enable individuals to communicate, learn, seek help, meet needs in appropriate ways, get along with others, make friends, establish healthy relationships, protect themselves, and interact harmoniously with society (Gresham & Elliott, 1990). They also form fundamental personality traits, such as trust, respect, responsibility, fairness, care, and citizenship (Taghipour & Ghaffari, 2009). These traits help develop an internal moral compass, allowing for sound decision-making in thought and behavior, enhancing social competence (Li & Jiang, 2018). Social skills, therefore, have a direct impact on both professional and personal life as well as overall well-being (Jiang & Dong, 2020). They are a set of behaviors that enable effective and satisfying interactions with others, and, notably, they can be learned, reinforced, and developed through daily practice (Lee & Huang, 2021)(Enayati Shabkolai et al., 2023; Öztop et al., 2024).

The hidden curriculum and students' social skills are deeply interconnected. The hidden curriculum refers to the learning and experiences not formally included in the school curriculum but transmitted through daily interactions, school culture, and organizational structures (Weresh, 2023). It significantly influences the development of students' social skills. Research has shown that the school environment and informal interactions between students and teachers, part of the hidden curriculum, play a critical role in social skill development (Sun et al., 2024). For instance, how teachers manage conflicts among students provides a model for problem-solving and conflict management, which students learn indirectly (Brown & Evans, 2002). School culture, a key component of the hidden curriculum, can foster collaboration and teamwork skills. Schools with a supportive and collaborative culture tend to nurture students with stronger social skills. These students learn to cooperate, accept different viewpoints, and work in diverse groups (Rahimi et al., 2023). Moreover, unwritten rules and behavioral expectations also contribute significantly to shaping social skills. Through observation and experience, students learn the social norms of their school environment and how to behave appropriately in various contexts (Fang & Ding, 2020).

School belonging and social skills are closely related, playing crucial roles in academic and personal development. A sense of belonging to the school and community lays a foundation for developing social skills, and strong social skills, in turn, can reinforce this sense of belonging. Students

with a strong sense of school belonging are more confident in communicating with peers and teachers, which helps them develop social skills through positive and constructive interactions (Hosseini Mardi et al., 2021; Korpershoek et al., 2020; Samadieh & Tanhayeh Reshvanloo, 2023). Additionally, the connection between belonging and social skills positively affects academic performance. Students with a strong sense of belonging and good social skills are typically more motivated to engage in class and learning activities, leading to better academic outcomes (Zhu et al., 2019). It is essential for schools and teachers to acknowledge this relationship and design programs that strengthen both belonging and social skills. Such programs may include group activities, mentoring initiatives, and creating a safe and supportive school environment (Allen et al., 2018).

Although prior studies have explored the impact of formal curricula on social skills, the role of the hidden curriculum in this context has been less examined. This research aims to shed light on how the informal and implicit aspects of the school environment—such as teacher-student relationships, school culture, and unwritten rules—affect the development of social skills. Moreover, examining the mediating role of school belonging provides deeper insights into the psychological mechanisms at play in this process (Becker et al., 2012). This approach explains how the hidden curriculum influences social skill development through the strengthening or weakening of a sense of belonging. Focusing on sixth-grade students, who are at a crucial stage of social development, offers valuable insights into the importance of this period in shaping social skills. This study also aims to address the existing literature gap by simultaneously investigating the hidden curriculum, sense of belonging, and social skills, presenting a more comprehensive model of how the school environment affects social development (Ahmadi Jouybari, 2017). This integrated approach will contribute to a better understanding of the complexities of social development and provide a foundation for designing more effective interventions to enhance students' social skills. Consequently, the present study investigates the impact of the hidden curriculum on social skill development with the mediating role of school belonging among sixth-grade students in Tonekabon County.

## 2. Methods and Materials

### 2.1. Study Design and Participants

The present study employed a correlational design, conducted using structural equation modeling (SEM). The statistical population consisted of all sixth-grade students in Tonekabon County during the 2023-2024 academic year, totaling 1,900 students. To determine the sample size, Kline's method was utilized. According to Kline, when using SEM, approximately twenty samples per observed variable are necessary, with a minimum of 200 samples being defensible (Kline, 2015). Based on the variables in the conceptual model shown in Figure 1, there were three observed variables. Thus, at least 60 samples were required, with 200 being preferable for defensibility. To account for potential attrition and incomplete questionnaires, 330 questionnaires were distributed. After collection and review, nine incomplete questionnaires were excluded, resulting in a final sample of 321. To ensure equal selection chances for all members of the statistical population, simple random sampling was used. The study variables included hidden curriculum, emotional intelligence, and academic anxiety.

To adhere to ethical considerations, the study followed the ethical codes outlined by the Iranian Psychological Association (2006), which emphasize respect for human dignity and freedom, duty and responsibility, beneficence and non-maleficence, non-discrimination, welfare of others, confidentiality, and providing sufficient information about the study to all participants.

### 2.2. Measures

#### 2.2.1. Social Skills

This questionnaire, designed by Gresham and Elliott in 1990, includes 27 items and four subscales: self-control, empathy, assertiveness, and cooperation. Responses are scored on a three-point Likert scale ranging from "Never occurs" (0) to "Often occurs" (2), with total scores ranging from 0 to 54. Scores of 0-18 indicate low social skills, 18-36 indicate moderate social skills, and above 36 indicate high social skills. Gresham and Elliott reported construct validity, with factor analysis explaining 50%-60% of the total variance. The overall Cronbach's alpha reliability coefficient for the SSRS was reported as .83 (Gresham & Elliott, 1990). Eslami et al. (2014) demonstrated good content validity for the Farsi version, with a content validity index (CVI) of .90 or higher. Construct validity was

confirmed through factor analysis, though some items showed low factor loadings ( $< .40$ ) or cross-loadings ( $> .40$ ), consistent with previous studies. The Cronbach's alpha reliability was .85 (Eslami et al., 2014).

#### 2.2.2. Hidden Curriculum

Taghipour and Ghaffari's Hidden Curriculum Questionnaire (2009) is a 23-item questionnaire that includes four subscales: interpersonal interaction, organizational structure, social atmosphere, and physical structure, using a five-point Likert scale (1 = Not at all, 2 = Low, 3 = Moderate, 4 = High, 5 = Very high), with scores ranging from 23 to 115. Content validity was assessed through expert review, and Cronbach's alpha reliability was reported as .91, indicating high internal consistency (Taghipour & Ghaffari, 2009).

#### 2.2.3. School Belonging

Brown and Evans' School Belonging Questionnaire (2002): Developed by Brown and Evans, this 16-item questionnaire uses a five-point Likert scale (1 = Strongly disagree, 5 = Strongly agree), with total scores ranging from 16 to 80. Scores of 16-32 indicate a low sense of belonging, 32-48 indicate a moderate sense, and above 48 indicate a high sense of belonging. Brown and Evans reported construct validity using factor analysis (loading = .76) and a Cronbach's alpha reliability coefficient of .86 (Brown & Evans, 2002). In Maniei's study (2014), expert opinions were used to confirm content validity, and adjustments were made based on feedback regarding clarity and relevance. The Cronbach's alpha for this study was .84 (Maniei, 2014).

### 2.3. Data Analysis

Data analysis employed descriptive statistics and SEM, using SPSS version 24 and SmartPLS version 3. The relationships between variables were modeled within a causal framework, with the total score for each variable serving as a latent construct. Inferential statistics included Pearson's correlation coefficient and normality testing via the Kolmogorov-Smirnov test. Model fit indices were assessed using the SRMR (Standardized Root Mean Square Residual) criterion, which should be less than .08. The Baron and Kenny method, standardized path coefficients, Sobel test, and t-statistics confirmed the proposed model's validity.

### 3. Findings and Results

In the present study, among the total of 321 respondents, 161 (50.2%) were female, and 160 (49.8%) were male. As

shown in Table 1, the significance level for all variables was below 5%, indicating a rejection of the normality assumption. Consequently, structural equation modeling was conducted using SmartPLS software.

**Table 1**

*Normality Test of Variables*

Variables	Test Statistic	Significance Level
Hidden Curriculum	0.124	0.000
Social Skills Growth	0.142	0.000
School Belonging	0.122	0.000

In Table 2, Cronbach's alpha values above 0.70 indicate acceptable reliability. The high composite reliability (CR)

values further confirm the suitability and good fit of the measurement models.

**Table 2**

*Cronbach's Alpha and Composite Reliability (CR)*

Variables	Cronbach's Alpha	CR
School Belonging	0.927	0.936
Hidden Curriculum	0.968	0.971
Social Skills Growth	0.961	0.964

The results show that the Average Variance Extracted (AVE) for all variables exceeded 0.50, indicating convergent validity.

**Table 3**

*Average Variance Extracted (AVE)*

Variables	AVE
School Belonging	0.520
Hidden Curriculum	0.529
Social Skills Growth	0.504

The significance of path coefficients was determined based on the t-values. A t-value greater than 1.96 indicates a significant effect of the independent variable on the dependent variable with 95% confidence. Sobel and Baron and Kenny tests were used to assess the mediating role of school belonging.

According to Table 4, since the significance level is below 0.01 and the t-value of 93.136 exceeds 1.96, the path from hidden curriculum to social skills growth is significant. The standardized path coefficient of 0.916 indicates a strong positive effect, confirming the first sub-hypothesis with 99% confidence. Figure 1 shows that the hidden curriculum's

impact on social skills growth is 84%. Additionally, since the significance level is below 0.01 and the t-value of 47.742 exceeds 1.96, the path from hidden curriculum to school belonging is significant. The coefficient of 0.828 confirms a strong positive effect, validating the second sub-hypothesis with 99% confidence. The hidden curriculum's impact on school belonging is 68%. Lastly, the path from school belonging to social skills growth is significant, with a t-value of 45.517 and a coefficient of 0.831, supporting the third sub-hypothesis with 99% confidence. School belonging impacts social skills growth by 69%.

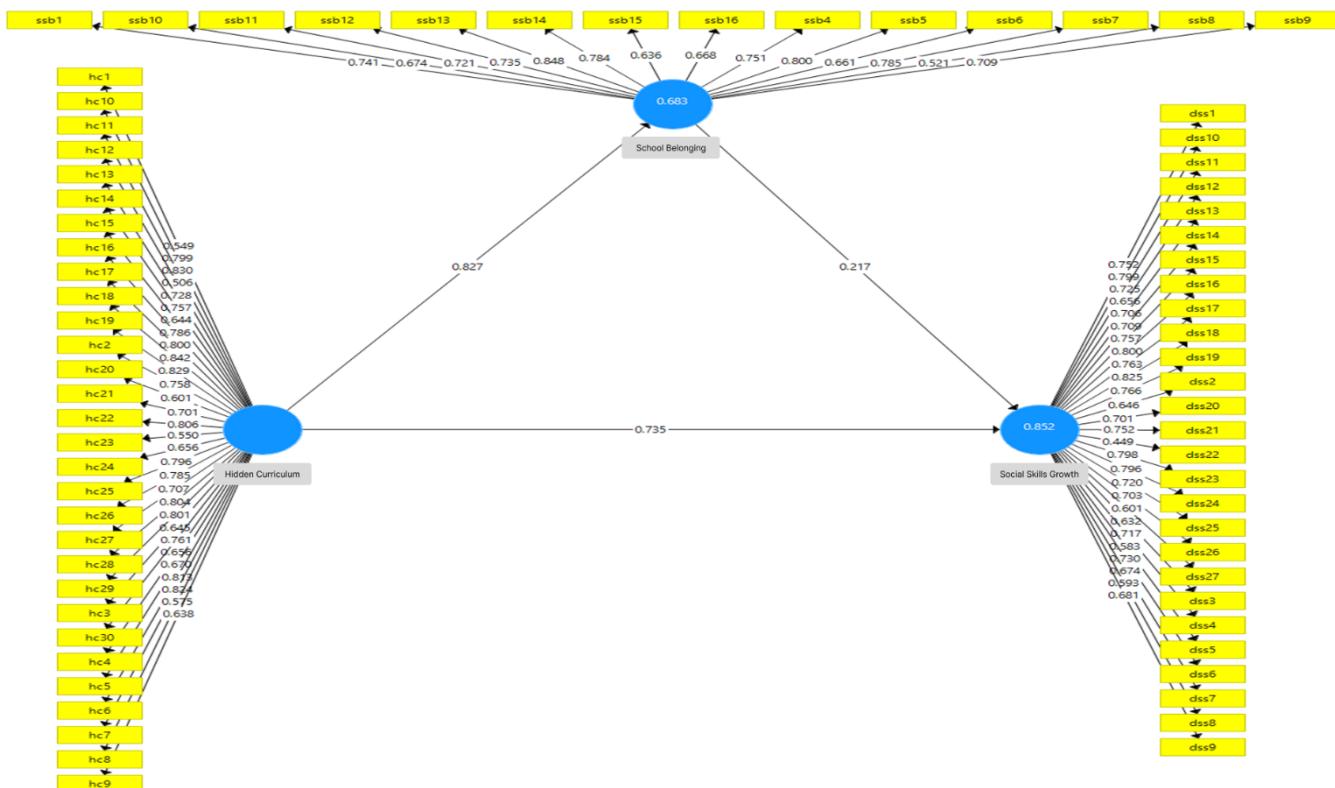
**Table 4**

*Path Coefficients with t-values*

Hypotheses (Direct Path)	Standardized Path Coefficient	Standard Error	t-value	Significance Level	Result
School Belonging -> Social Skills Growth	0.217	0.049	4.431	0.000	Significant
Hidden Curriculum -> School Belonging	0.827	0.018	45.705	0.000	Significant
Hidden Curriculum -> Social Skills Growth	0.735	0.045	16.194	0.000	Significant
Hidden Curriculum -> School Belonging -> Social Skills Growth	0.180	0.041	4.396	0.000	Significant

**Figure 1**

*Standardized Path Coefficients for Hypotheses*

**Table 5**

*Coefficient of Determination ( $R^2$ ) and Predictive Relevance ( $Q^2$ )*

Dependent Variables	$Q^2$	$R^2$
School Belonging	0.328	0.683
Social Skills Growth	0.394	0.852

The acceptable SRMR (Standardized Root Mean Square Residual) value is 0.08 or less. The calculated SRMR value of 0.063 confirms the overall model fit. As shown in Table 4, the relationships between the independent variable, mediator, and dependent variable are all statistically significant, validating the first three steps of the Baron and

Kenny method. Introducing the mediator variable, school belonging, reduced the beta coefficient between hidden curriculum and social skills growth from 0.916 to 0.735, while maintaining statistical significance with a t-value of 16.194. This suggests partial mediation by school belonging. The Sobel test further confirmed the mediation, as the test

statistic of 4.407 ( $p < 0.05$ ) indicates a significant mediating effect.

#### 4. Discussion and Conclusion

This study aimed to investigate the impact of the hidden curriculum on the development of social skills with the mediating role of school belonging among sixth-grade students in Tonekabon County. The results showed that the hidden curriculum has a significant positive effect on the development of social skills, consistent with prior findings (Faroughi et al., 2020; Kian et al., 2020). The hidden curriculum encompasses experiences, interactions, and informal learning that students acquire in the school environment, even though these are not part of the official curriculum (Goleman & Davidson, 2018). It provides numerous opportunities for practicing and developing social skills. In the school setting, students interact with peers and teachers, participate in group activities, and become familiar with social rules and norms, which help them develop skills such as cooperation, conflict resolution, empathy, and effective communication (Brown, 2022). Additionally, observing and modeling others' behaviors are components of the hidden curriculum that contribute to social skill development. Research has demonstrated that learning in real contexts and through practical experiences has a more profound and lasting impact than theoretical instruction alone (Becker et al., 2012). The hidden curriculum allows students to practice social skills in real-life situations and receive direct feedback. Its informal and flexible nature can address various aspects of social skills that may be overlooked in the formal curriculum (Faroughi et al., 2020). Ultimately, the significant positive impact of the hidden curriculum on social skills underscores the importance of paying attention to the informal aspects of teaching and learning. This finding can guide policymakers and educators in designing conducive learning environments that foster the social skills development of students.

The results also indicated that the hidden curriculum has a significant positive effect on school belonging, aligning with previous findings (Kian et al., 2020). The hidden curriculum consists of experiences, values, and norms informally and unconsciously transmitted in the school environment (Goleman & Davidson, 2018). It plays a vital role in shaping school culture and fostering a sense of belonging among students. One main reason for this positive impact is the creation of meaningful relationships between students and teachers. Daily interactions, emotional support,

and informal feedback—part of the hidden curriculum—can build strong emotional bonds and reinforce students' sense of acceptance (Faroughi et al., 2020). This, in turn, enhances school belonging. Furthermore, the hidden curriculum provides opportunities for students to actively participate in school activities, which can include extracurricular activities, classroom responsibilities, or group projects, fostering a sense of ownership and commitment to the school (Korpershoek et al., 2020). The hidden curriculum also plays a crucial role in transmitting school values and norms. When students internalize and align with these values, they experience a stronger sense of belonging to the school environment (Zhu et al., 2019). This value alignment creates a deep bond between students and the school. Additionally, the hidden curriculum can help create a safe and supportive environment. When students feel secure and supported, they are more inclined to engage and interact within the school, further reinforcing their sense of belonging (Weresh, 2023). Overall, this finding highlights the importance of the hidden, informal aspects of the school environment in fostering a sense of school belonging. Educators and administrators can use this insight to design meaningful experiences and interactions that enhance students' sense of belonging.

The results also showed that school belonging significantly affects the development of social skills, consistent with the findings of Korpershoek et al. (2020). Schools are social environments where students spend a significant amount of their time (Korpershoek et al., 2020). A sense of belonging to this environment increases students' motivation to engage in social activities and interact with peers and teachers. This increase in interactions provides more opportunities to practice and improve social skills (Allen et al., 2018). Studies have shown that school belonging is associated with reduced stress and social anxiety. This reduction allows students to participate in social situations with greater confidence, enhancing their social skills (Arslan, 2018). Moreover, students with a strong sense of school belonging are more likely to participate in extracurricular activities and student groups, which provide additional opportunities for social interaction and the development of skills such as teamwork, leadership, and social problem-solving (Chhuon & Wallace, 2014). School belonging can also establish a strong support network that includes friends, teachers, and school staff who act as positive role models and provide constructive feedback for social skill improvement. Research indicates that school belonging is linked to increased empathy, communication skills, and conflict resolution abilities, which are essential



components of social skills (Abdollahi et al., 2020). Finally, school belonging can enhance academic motivation and performance. This academic success, in turn, boosts students' confidence, encouraging more active participation in social interactions (Korpershoek et al., 2020).

The results of this study also showed that school belonging mediates the impact of the hidden curriculum on the development of social skills, consistent with findings by Allen et al. (2018). This result indicates that school belonging plays a crucial mediating role between the hidden curriculum and students' social skills development. The hidden curriculum, which encompasses values, attitudes, and behaviors informally transmitted within the school environment, can significantly influence the formation of students' social identities and communication skills. School belonging acts as a mediator because students who feel accepted and valued in the school environment are more likely to benefit from the experiences and lessons provided by the hidden curriculum. Studies have shown that school belonging is associated with positive academic, social, and emotional outcomes (Allen et al., 2018). The hidden curriculum can enhance social skills such as empathy, cooperation, and conflict resolution, but this impact is most effective when students have a strong sense of belonging to the school. Research has demonstrated that positive and supportive learning environments can significantly affect students' socio-emotional development (Weresh, 2023). Furthermore, school belonging can increase students' motivation to engage in social activities and learn new skills, thereby strengthening their social abilities. Studies have also found that students with a greater sense of school belonging perform better in interpersonal relationships and social skills (Korpershoek et al., 2020).

Every study faces certain limitations based on the conditions and resources available for its execution. Cultural and structural differences in various schools could have different effects on school belonging and social skills development, which was assumed to be constant in this study. Additionally, factors such as family environment, media influence, and out-of-school experiences that may impact school belonging and social skills were also assumed to be constant. Therefore, it is recommended that schools implement community service projects where students can work as a team, enhancing their social skills through collaboration and interaction. Schools should also establish continuous evaluation systems to monitor students' sense of belonging and social skills development.

The findings indicate that school belonging serves as a crucial mediator in the relationship between the hidden curriculum and students' social skills development. This complex relationship operates through several mechanisms. The hidden curriculum fosters a positive emotional atmosphere, promoting a sense of belonging. In turn, school belonging provides the motivation and confidence needed for active engagement in social learning. This sense of belonging also creates a safe environment for practicing social skills and reinforces students' social identity. From a neurobiological perspective, school belonging facilitates social skill learning by activating the brain's reward system. Understanding this mediating relationship can aid in the effective design of educational environments that support holistic student development.

## Authors' Contributions

All authors significantly contributed to this study.

## Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

## Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

## Acknowledgments

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## Declaration of Interest

The authors report no conflict of interest.

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According to the authors, this article has no financial support.

## Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants. Each participant received an informed consent form to understand the study's objectives.

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