The Effect of Hidden Curriculum on Creativity and Social Skills: 
The Perspective of Elementary Schools

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<th>ORIGINAL ARTICLE</th>
<th>ABSTRACT</th>
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<tr>
<td><strong>Article History:</strong></td>
<td><strong>Background:</strong> Hidden curriculum in every school may have different side effects on students. The purpose of this study was to investigate the relations of hidden curriculum with creativity and social skills among elementary students.</td>
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<td>Received: 16 Dec 2019</td>
<td><strong>Methods:</strong> The research method was descriptive-correlational. The study population consisted of all sixth-grade elementary students in Roodsar, Gilan (including 616 students) in the academic year 2018-2019. According to Morgan and Krejcie's Table, the sample size was 270 students, which were selected by simple random sampling. The research tools included Taghipoor and Ghafari's Hidden Curriculum Questionnaire, Torrance's Creative Thinking Form B, and Matson's Social Skills Questionnaire. The validity and the reliability of the questionnaires were obtained, using Alpha Cronbach Coefficient and were 0.91, 0.90, and 0.86, respectively. Regression and path analysis were done for data analysis using SPSS 24.</td>
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<td>Revised: 25 Feb 2020</td>
<td><strong>Results:</strong> The findings showed that hidden curriculum has a strong positive and significant relation with creativity in terms of school social climate. Also, the hidden curriculum had a strong positive and significant relation with the components of appropriate social skills, non-social behaviors, aggression, and supremacy. In addition, there was no significant relation between creativity and social skills. Moreover, the results of the path analysis showed that hidden curriculum has a positive and significant relation with the four components of social skills and finally. In addition, hidden curriculum had a significant relation with the students' creativity.</td>
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<td>Accepted: 5 May 2020</td>
<td><strong>Conclusion:</strong> Generally, it can be concluded that hidden curriculum plays an important role through the implicit transfer of values, attitudes, and skills to students, especially on social skills and creativity, so that these issues need to be given more attention by the educators in every educational setting.</td>
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<th>*Corresponding Author:</th>
<th>Keywords: Curriculum, Creativity, Social Skills, Elementary School</th>
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Introduction

Most courses in every education system are organized as explicit curricula, a program in which all teaching and learning processes are previously planned. But "Hidden Curriculum", as a type of curricula, has a bold but hidden presence in every school environment. The hidden curriculum, as a shadow of the education system, despite lack of a clear presence, leaves its effect and can help shape attitudes toward school, living environment, and community values in students (Iraninejad & Chitaei, 2011). The current study aimed at investigating the relationship between the hidden curriculum and other goals of the education system, i.e., nurturing creativity and social skills.

Nurturing creativity is one of the fundamental goals of any educational system. Developing creativity and innovation in schools are among the most important factors in the promotion of students’ development. In Iran’s educational system, there is a great gap between the current status and what should be done for nurturing creativity in children. Likewise, different educational elements and their roles in nurturing the creativity of children are of particular importance (Shokrizadeh Dodaji, 2016).

In addition, nurturing social skills is another major goal in every education system. Benefitting from these skills affects personal and social health and academic achievement in children. However, many children do not achieve social skills appropriately, which leads to the development of psychological problems such as failure to communicate with peers, poor academic achievement, failure to engage in extracurricular activities, peer rejection, anxiety, depression, and anger in childhood and adulthood (Raisi, 2016).

In every school environment, students learn the hidden curriculum through non-academic aspects of the school (Andarvazh et al., 2017). In fact, the hidden curriculum is to learn from the context and culture of the school, that is, the behaviors and values of teachers and principals (Safai Movahed, 2011). According to the viewpoint of Skelton (1997), a hidden curriculum is a set of messages about knowledge, values, behavioral norms, and attitudes that the learner implicitly experiences during the education. According to the viewpoint of Kentli (2009), in addition to the curriculum, students also experience unwritten and uninformed planning (Samiee Zafarghandi, 2008). The hidden curriculum originates from both the school and social sources. The school sources are implemented by teachers and social sources reflect the impact of social, cultural, and economic factors; the role of social sources in school is to promote positive values in students (Alqomoul & Alroud, 2017). In addition, the hidden curriculum can manifest in the achievement of the education system goals. If creativity and social skills are not nurtured properly, the reasons should be explored in explicit and hidden processes of school curricula.

Different studies have been done on the subject of the present study; for example, the results of the study by Pllana (2019) showed that the educational reforms are crucial in nurturing creativity and innovation in schools. The results of the study by Dere (2019) showed that hidden curriculum components such as award and punishment and social relationships play a significant role in nurturing children's creativity. Sorrentino (2019) showed a significant correlation between encouragement and students' creativity. Liu (2019) in a study showed that learning activities and social participation affect the development of students' social skills. Blazevic (2016) in a study showed that the total factors of family, school, and peers are highly important in the development of such skills. The results of a study by Çengel & Türkoğlu (2016) showed that hidden curriculum in classrooms of the positive atmosphere had a more positive impact on students. Michel & Stephanie (2015) in their study found that creative children are more different from other children and giving them independence and freedom increases their creativity. The results of a study by Feldhusen & Pleiss (2010) showed a significant correlation between creativity and social skills. Amabil,
Phyllis & Farb (2014) in a study showed that cooperation and supervision in social skills had a negative or weak impact on creativity. Cubukcu (2012) in a research revealed that the components of the hidden curriculum significantly affected social skills components. Sari & Doganay (2009) in a study also showed that the hidden curriculum interacted with both the social and non-social behaviors of the students.

Some studies were also performed in Iran. For instance, Nejat (2019) in a study showed that hidden curriculum was significantly correlated with social skills. The results of the study by Shokrizadeh Dodaji (2016) showed a positive correlation of hidden curriculum with creativity development and academic achievement in the students. In addition, the relationship between academic achievement and the hidden curriculum was more significant than that of creativity development and hidden curriculum. Furthermore, among the dimensions of a hidden curriculum, the components of school structure and social environment could predict the academic achievement of students. In a study by Raisi (2016), the results showed a significant difference among the study variables between the two student groups. Moreover, the results of a study by Yasemi et al. (2015) about the social skills of preschool children showed that social skills are highly effective in empowering children’s life. Ilani (2015) in a research indicated a positive and significant relationship between the hidden curriculum and social intelligence and their dimensions with the creativity of the students. Akbari (2015) in a study concluded that there was a positive and significant relationship between creativity and social skills. Haji Omidi (2015) in a research concluded that the variables of creativity and social skills influence each other. Results of a study by Zerehi (2014) showed a significant and positive correlation between hidden curriculum and creativity. Bandak et al. (2014) in a study showed that life skills training influences creativity. Yousefzadeh et al. (2012) in a study showed a significant relationship between the social environment of the school and social skills of the students.

Moreover, the impacts of the hidden curriculum need to be more thoroughly explored. Hence, it should be investigated how a hidden curriculum can affect educational goals, such as creativity and social skills. This issue aimed to be addressed in the present study. So, the present research seeks to answer these questions:

– Does hidden curriculum correlate with students’ creativity?
– Does hidden curriculum correlate with the development of students’ social skills?
– Does creativity correlate with students’ social skills?
– How is the correlation of hidden curriculum with creativity and social skills?

In sum, a review of the above-mentioned theoretical foundations can be plotted in the following conceptual framework (Figure 1).

Methods
The method of the study was descriptive-correlational. The exact details of the methodology section are provided below.

Participants
The study population consisted of all sixth-grade elementary students in Roodsar, Gilan (including 616 students) in the academic year of 2018-2019. According to Morgan and Krejcie’s table, the sample size was 270 students, who were selected by simple random sampling. Also, the participation was voluntary for the students. (NOTE: This area has a small population. Since one of the authors of this study was a teacher in Roodsar, this area was selected. Also, this study did not consider comparing the data between the statistical samples in Roodsar districts.

Research Tools
The data collection tools included the following questionnaires:
1) Hidden Curriculum Questionnaire (Taghipour & Ghafari 2009):

The questionnaire consists of 30 closed-ended items. It includes 5 dimensions of “Physical Structure of School”, “Social Environment of School”, “Social Relations”, “Information and Communication Technology” and “Award and Punishment”. It is scored based on a five-point Likert scale (very high, high, medium, low, and very low), so that “very high” get 5, and “very low” get 1. The validity of the questionnaire was confirmed by five experts of Kharazmi University and its reliability was reported desirable (= 0.91) in the study by Ghaffari and Taghipour (2009).

2) Torrance Test of Creative Thinking (Torrance, 1998):

The questionnaire (Figural, Form B) has three activities and four parts. The activities include “making pictures”, “completing pictures” and “drawing lines” and the four parts include “originality”, “expansion”, “fluidity”, and “flexibility”. The total scores are interpreted as the four components, reflecting the student’s creativity. The scoring of the Torrance test, especially in "ingenuity" and "flexibility", is non-objective and may be influenced by the scoring person. For this reason, the correlation between the scorers is usually determined (Abedi, 1993).

The validity of the test was confirmed by five experts of Kharazmi University. In addition, according to the results published in the manual of the test, the reliability coefficients were 0.82 for fluidity, 0.89 for originality, 0.91 for expansion, and 0.78 for flexibility. The total reliability of the test was confirmed as 0.80 (Hosseini, 2007).

3) Matson Evaluation of Social Skills (Matson, Macklin, & Helsel, 1986):

The tool has 56 closed-ended questions, scored based on a five-point Likert scale from 1 to 5, from very agree (score=5), to very disagree (score=1). But this way of scoring is reversed in questions of 19 to 47, 49, 50, 52, 54 and 55. The tool includes the sections of "appropriate social skills", "non-social behaviors", "aggressive behaviors", "supremacy", "high self-esteem", and "peer relationships". The construct validity of the questionnaire was obtained in a study by Yousefi & Khayyer (2002). The reliability of the questionnaire was calculated, using Cronbach's Alpha, like 0.86 Yousefi & Khayyer (2002).

Data Analysis

Data were analyzed with SPSS 24 software, using regression and path analysis. Multiple path analysis was performed for classical path analysis. The path coefficients derived from the “hidden curriculum” over the other variables which were inserted on the paths. In the path analysis, according to the model, the variables that have an independent role for each dependent variable were entered into the equation separately. This was done for all dependent variables and independent ones related to them. Finally, the "standard coefficients" were reported as the "path coefficients". In general, the variables and the standard loads among them were plotted based on the theoretical model. This study was approved by the Ethics Committee of Kharazmi University, Code: IR.KHU.REC.1398.054. In line with the research ethics principles, informed consent was obtained from all the participants as well as they assured that the information will remain confidential. The participants agreed to the total research plan.

Results

Path analysis was used to investigate the relationship between hidden curriculum, and creativity and social skills of the students. The standardized loads are shown in Figure (2).

Based on the findings, not only “hidden curriculum” affected the total score of “social skills”, but also its relationship with other variables was significant (Table 1).

In the next step, the analysis was performed on a subscale basis. According to the findings, there was a significant and positive relationship between social environment, originality, expansion, fluidity, flexibility, and appropriate social skills. Besides,
According to the results, there was a negative and significant relationship between encouragement and punishment, and expansion, fluidity, flexibility, and supremacy. There was also a significant and positive relationship between social relationships and non-social behaviors and supremacy. A negative and significant relationship between the physical structure of school and non-social behaviors was also observed. The relationship between Information and Communication Technology (ICT), and non-social behaviors and aggression were also significant and positive. The relationship between the other variables was not significant.

According to the standard coefficients, the importance of the “physical structure of school”, a component of the “hidden curriculum”, was higher than that of “social relationships”. “Reward and punishment” has a negative relationship with supremacy, and “social relations” has a positive relationship with supremacy. According to the standard coefficients, both variables were equally important, but the direction of their effects was different. ICT, one of the components of the “hidden curriculum”, had a positive relationship with aggression, which is a component of social skills. “Peer relationship” is another component of social skills, which had a significant and positive relationship with the scores of “hidden curriculum” (Table 2).

**Figure 1.** The Conceptual Framework of the Study

**Figure 2.** Standardized Path Analysis and Variables in the Model
The Effects of Hidden Curriculum on Creativity…

Table 1. Coefficients of Hidden Curriculum on the Components of Creativity and Social Skills

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Raw Coefficient (Standard Error)</th>
<th>Standard Coefficient</th>
<th>R2</th>
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<tbody>
<tr>
<td>Originality</td>
<td>0.24 (0.06)*</td>
<td>0.24</td>
<td>0.06</td>
</tr>
<tr>
<td>Expansion</td>
<td>0.29 (0.06)*</td>
<td>0.29</td>
<td>0.09</td>
</tr>
<tr>
<td>Fluidity</td>
<td>0.27 (0.06)*</td>
<td>0.27</td>
<td>0.07</td>
</tr>
<tr>
<td>Flexibility</td>
<td>0.23 (0.06)*</td>
<td>0.23</td>
<td>0.05</td>
</tr>
<tr>
<td>Total score of social skills</td>
<td>0.09 (0.06)*</td>
<td>0.09</td>
<td>0.01</td>
</tr>
</tbody>
</table>

*significant at α = 0.05

Table 2. Hidden Curriculum Coefficients on the Components of Creativity and Social Skills

<table>
<thead>
<tr>
<th>Variables</th>
<th>Award and Punishment</th>
<th>Social Environment of School</th>
<th>Social Relations</th>
<th>Physical Structure of School</th>
<th>Information and Communication Technology</th>
<th>R2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creativity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Originality</td>
<td>(0.07*)</td>
<td>(0.10*)</td>
<td>(0.08*)</td>
<td>(0.09)</td>
<td>(0.07*)</td>
<td>0.02</td>
</tr>
<tr>
<td>Expansion</td>
<td>(0.07*)</td>
<td>(0.10*)</td>
<td>(0.08*)</td>
<td>(0.09)</td>
<td>(0.07*)</td>
<td>0.11</td>
</tr>
<tr>
<td>Fluidity</td>
<td>(0.07*)</td>
<td>(0.09*)</td>
<td>(0.08*)</td>
<td>(0.09)</td>
<td>(0.07*)</td>
<td>0.12</td>
</tr>
<tr>
<td>Flexibility</td>
<td>(0.07*)</td>
<td>(0.10*)</td>
<td>(0.08*)</td>
<td>(0.09)</td>
<td>(0.07*)</td>
<td>0.13</td>
</tr>
<tr>
<td>Social Skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appropriate Social Skills</td>
<td>(0.07*)</td>
<td>(0.10*)</td>
<td>(0.08*)</td>
<td>(0.09)</td>
<td>(0.07*)</td>
<td>0.05</td>
</tr>
<tr>
<td>Nonsocial Behaviors</td>
<td>(0.07*)</td>
<td>(0.10*)</td>
<td>(0.08*)</td>
<td>(0.09)</td>
<td>(0.07*)</td>
<td>0.15</td>
</tr>
<tr>
<td>Aggregation</td>
<td>(0.07*)</td>
<td>(0.10*)</td>
<td>(0.08*)</td>
<td>(0.09)</td>
<td>(0.07*)</td>
<td>0.16</td>
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<tr>
<td>Supremacy</td>
<td>(0.07*)</td>
<td>(0.10*)</td>
<td>(0.08*)</td>
<td>(0.09)</td>
<td>(0.07*)</td>
<td>0.00</td>
</tr>
<tr>
<td>Peer Relations</td>
<td>(0.07*)</td>
<td>(0.10*)</td>
<td>(0.09*)</td>
<td>(0.09)</td>
<td>(0.08*)</td>
<td>0.13</td>
</tr>
</tbody>
</table>

*significant at α = 0.05

Discussion

Based on the results, it can be concluded that the “hidden curriculum” has a positive and significant relationship with “social skills” dimensions. Based on the current study results, there was a significant and positive relationship between social environment and originality, expansion, fluidity, flexibility, and appropriate social skills. Punishment also had a negative and significant relationship with expansion, fluidity, flexibility, and supremacy. According to the obtained results, there was a significant and positive correlation between social relationships, and non-social behaviors and supremacy. A significant and negative relationship was found between the physical structure of school and non-social behaviors. Regarding the standard coefficients, the importance of the physical structure of school, a component of the hidden curriculum was higher than that of social relations. Award and punishment had a negative relationship with supremacy; social relations also had a positive relationship with supremacy. Hence, according to the standard coefficients, both variables were equally important, but their direction of effect was different. ICT, one of the components of the hidden curriculum, had a positive correlation with aggression, a component of social skills. Peer relationship was another component of social skills that had a significant
and positive relationship with hidden curriculum scores.

Given the significant relationship between “hidden curriculum” and “creativity” in the present study, the findings were consistent with those of the studies by AghaHosseini et al. (2018), ShokrizadehDodaji (2016), Ilani (2015), Zerehi (2014), Pllana (2019), Sorrentino (2019), and Kwasniewska et al. (2018). In explaining this finding, it can be said that hidden curriculum, by completing many aspects of the educational identities of the students can provide rich educational opportunities and contexts to promote creativity for them. The hidden curriculum plays an important role in the emergence and flourishing of creativity. In addition, the social environment of the school is considered as the quality index and feature of the school and is also one of the components of the hidden curriculum which completes and expands attitudes and interactions within the internal groups of the school through which the students learn more and their creativity is nourished better.

The findings also showed a positive and significant relationship between the “social environment of school” and “appropriate social skills”. This result was consistent with those of the studies by Raisi (2016), Yousefzadeh et al. (2012), Iraninejad & Chitaei (2011), Talebzadeh (2008), Liu (2019), Kournousi et al. (2018), Blazevic (2016), Çengel & Türkoğlu (2016), Michel & Stephanie (2015), and Sari (2009). The social environment of the school is one of the most important components of the hidden curriculum, and students’ behaviors affect their performance. In other words, the school atmosphere is the result of relationships among the learners, the teachers, the school administrators, and the staff. It can directly influence students and provide the necessary backgrounds in subscales of social skills including accountability, honesty, decision making, empathy, and cooperation.

In addition, the results of the present study are inconsistent with some other studies. Bragg (2011) showed that the important effects of creativity programs include improving teacher-student relationships, learning motivation, and increasing school reputation in the community; the results that the "deprived schools" lack. But, in the present study, the focus was not on the deprived schools. Also, the current study results showed that creativity had no correlations with social skills; this was inconsistent with those of Akbari (2015), Haji Omidi (2015), Haghighi (2013), Kwasniewska & et al (2018), Feldhusen & Pleiss (2010), Amabili et al. (2014), Tahghighi et al. (2014), and Moran (2014). Moreover, social skills, in addition to being able to enhance people's leisure time (Kian, 2015) can also reflect a person's better ability to cope with life's problems. In explaining this finding, it can be said that perhaps this is due to the "separate" and "independent" creativity programs from other educational programs at schools, in particular, the development of social skills. Since formal educational programs on teaching creativity at schools are very scarce, the students are not familiar with these types of skills. Another reason can also be related to the "individuality" of some aspects of creativity, which in turn causes that "creativity" has little to do with the "social skills" of the individuals.

The difference between the results of the current study and those of the above-mentioned researches can be attributed to school contexts and educational environment factors. In sum, it seems that creativity as an independent feature can be developed in individuals regardless of the extent and type of social skills, and other factors, which are often more personal, contribute to its development. Overall, these cases require further research.

Conclusion

It can be concluded that hidden curriculum has a strong relationship with creativity, especially in terms of school social climate. Also, hidden curriculum has a strong relation with the components of social skills. Overall, it can be concluded that hidden curriculum plays an important role through the implicit transfer of
values, attitudes, and skills to students, which needs more attention in every educational setting.

The present study had some limitations, including difficulty in getting students involved in completing the questionnaires; difficulty completing the B form of Creativity Questionnaire because it requires more time; more difficult participation of boy students; and caution in generalizing the results because it was confined to one district of a province as well as the primary schools.

Based on the findings, the following suggestions are offered to the educational planners:
– Providing workshops to raise the awareness of teachers and principals about the effects of hidden curriculum.
– Providing more enrich opportunities in schools to nurture students’ creativity
– Increasing opportunities for primary school students to develop social skills
– Paying more attention to school environments and peer group relations to help students better develop their creativity and social skills.

Conflict of Interest
In this study, was not reported any potential conflicts of interest by the authors.

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Authors’ Contribution
Conceptualization & Supervision: M.K.; Implementation: H.E; Writing, Review & Editing: M.K.; Statistical Analysis: B.I. The authors approved the final manuscript and are responsible about any questions related to the article.

All authors read and approved the final manuscript. All researchers are responsible about any question related to the manuscript

References


