Student-Centered Educational Reform: The Impact of Parental and Educator Support of Student Diligence

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Abstract

Recent reform initiatives have been reemphasizing the need for students to assume greater responsibility for their educational development. The diligence inventory is one response to this need to measure the extent and quality of student effort. Diligence has turned out to be a significant and meaningful predictor of student competence (GPA) in several studies (r = .28 - .32). This study examines the level of diligence displayed by elementary, junior high, and high school students from two selected school districts, and relates student diligence to the level of support provided by parents and educators. Demographic differences in diligence are also examined. The study has potential for promoting the development of a model for addressing accountability issues based on the nature of responsibility displayed by the key stakeholders in students' educational development.

Introduction

Educational reform is an ongoing process. The decade of the 80s was characterized by reform initiatives that stemmed from the landmark 1983 report "A Nation at Risk." The two ensuing waves of reform addressed mainly external factors such as curricula, school governance, school climate, and

teaching effectiveness with implications for meritorious teacher remuneration. However, the decade of the 90s seems to be focusing on a third wave of reform that, according to Lipskey (1992), places the ***student*** at the center of the reform movement. Increasingly, educators have been stressing the importance of having students accept greater responsibility for their educational achievements (Ericson & Ellett, 1990).

Glasser (1986, 1990) posits that students must expend ***quality*** effort in order to achieve high-quality work. A corollary to this axiom is that parents and educators must provide the necessary support so that students can maximize their potentials. Such support by parents and educators would give substance and meaning to the cliche of having high expectations for *all* students.

Too often students are exhorted to expend more effort without a clear definition of the nature and purpose of this effort and its relationship to their educational development. "Diligence" was conceptualized as a response to this need to operationalize student responsibility (Bernard, Thayer, & Streeter, 1993). Diligence is defined as effort expended toward holistic educational development. An instrument was developed that could reflect students' quality and quantity of effort and, in conjunction with native ability, help explain and predict students' academic outcomes.

Having identified what it takes to substantiate student responsibility, the next step would be to determine the extent of support provided by educators and parents in promoting this responsibility in students. Parents and educators share the responsibility of cultivating the minds, transmitting the values, and teaching the skills for the next generation. This shared responsibility can best be accomplished through a working alliance between parents and educators (Drake, 1990).

A quality alliance between parents and educators in their support of students encompasses four critical functions: information exchange, joint problem-solving, school-based support, and home-based connection—the linkage which enables educators to work with parents/guardians in ways that will help them to be effective in assisting their children in the home. Of these four areas, the home-based connection is most pertinent to any program on student responsibility. The diligence construct can serve as a common denominator in building this alliance of students, parents, and educators.

What is Diligence?

Diligence in a student is defined as an expression or reflection of the effort expended toward balanced or holistic development by the student in the mental, physical, social, and spiritual dimensions, as indicated through measurement by the following five scales. The Diligence Inventories for high school **(DI-HS)** and elementary and middle school students **(DI-EM)** as well

as the inventories for Parents/Guardians **(DI-PG)** and Educators **(DI-EF)** are all 55-item instruments. The DI-PG and DI-EF are intended to measure the support provided by parents and educators in promoting diligence in the children and youth under their care and tutelage. Therefore, the items of these versions of the DI closely mirror the students' versions. Some examples of items in the DI-EM are given below. Each scale is accompanied by sample items from the DI-EM by number. Some items are stated negatively with respect to diligence.

- **Motivation**—Drive to get started along a certain course of action with an intended result in mind.

  1. **I want to do the best I can in school.**
  35. **I start projects well, but I have problems completing them.**

- **Concentration and Assimilation**—the act of focusing attention on a problem, task, or impending situation through a process by which all new experience, when received into the consciousness, is modified so as to be incorporated with the results of previous processes and the interaction in which a subject or its parts are mentally conceived.

  15. **Whenever I am studying a topic I try to organize all the main points.**
  27. **I try to use what I already know to help me understand new information.**

- **Conformity and Responsibility**—the act of maintaining harmony or the status quo in an organized setting by demonstrating maturity with respect to dealing with one's self and significant others.

  3. **I listen to everything the teacher says in class.**
  26. **I like my assignments to look neat and tidy.**

- **Discipline**—the training of the will.

  6. **I feel I am not getting enough rest.**
  51. **I tend to fall asleep when I'm studying.**

- **Devotedness and Spirituality**—practices that contribute to building good morals and self-esteem.

  2. **I make constructive use of my leisure time.**
  12. **I take time to admire the things of nature.**

Purpose of the Study

Earlier studies have suggested that diligence is manifested at all developmental levels particularly as it relates to education (Bernard, Thayer & Streeter, 1993; Bernard, Rak & Antonini, 1995). The original Diligence Inventory (DI-HS) was developed for high-school juniors and seniors. However, it is believed that there is a relationship between students' diligence and the extent of support provided by parents and educators in the promotion of diligence in students.

The purpose of this study was to examine the pattern of diligence displayed by students in two suburban school districts and to compare the average diligence of these students with the level of support generally provided by teachers and parents of students in these systems. The DI-PG was used to measure the support provided by parents/guardians, and the DI-EF was used to measure the support provided by teachers. No attempt was made in this study to match students with their parents and/or teachers; it represents a first step to relate student diligence and student support systems. It is hoped that this exploratory study can shed light on the development of a comprehensive and effective parent and teacher involvement program to enhance student achievement in school.

Questions Addressed

The following questions concerning parents, teachers, and students were investigated in this study:

A. Is there a relationship between the diligence support provided by parents and their ethnic group; educational background; age; socioeconomic status; marital status; expectation of children's success; children's diligence; number of children in the family?
B. Is there a relationship between the diligence support provided by teachers and their ethnic group; educational background; age; socioeconomic status; marital status; teaching experience; grade level taught; students' diligence?
C. Is there a relationship between student's diligence and their gender; ethnic group; grade level; socioeconomic status?

Reliability, Validity and Some Characteristics of the Diligence Inventory

The first Diligence Inventory developed was the High School version (DI-HS) on a sample of 237 high-school juniors and seniors. It was judged for content validity by a panel of 12 experienced teachers and administrators. Factor analysis and item analysis were used to establish the underlying fac-

tors (scales) of diligence and to provide reliability estimates of the instrument and scales. In addition, the method of Known Group difference was used to further establish construct validity. In other words the DI-HS was able to discriminate between students of low, average, and high diligence as evaluated by teachers.

All versions of the Diligence Inventory except the DI-EM are scored using a Likert scale, ranging from Never/Rarely = 1 to Almost Always = 5 for positive items, and from Never/Rarely = 5 to Almost Always = 1 for negative items, from minimum to maximum diligence. The scale range is 55 - 275. For the DI-EM the range is 1 = Very little or none of the time to 3 = Most or all of the time. The scale range is 55 - 165.

The findings of the original study have since been replicated on several other samples of students in grades 9 through 12 and also at the higher education level (for example, Bernard, Rak, and Antonini, 1994; Bennett, 1994; Bernard and Schuttenberg, 1995). The following is a summary of some selected characteristics of the Diligence Inventory:

- The **5-factor** structure was the most stable accounting for 34 - 37% of the variance in diligence.
- Reliability coefficients of the instruments ranged from .90 - .92 and reliability coefficients of the five sub-scales ranged from .56 - .91.
- Test-retest reliability for the DI-HS as a whole was .66 and the scale range was .55 - .96.
- Construct validity was estimated using the method of Known Group Difference. Students were classified by their teachers as having low, average, and high diligence, and in fact their self-reported diligence scores turned out to be significantly different in the right direction.
- At the high school level females tended to be more diligent than males, but no sex difference was apparent at the elementary and higher education levels.
- Also at the high school level, juniors tended to be the most diligent and freshmen the least, with sophomores and seniors alternating for the middle position.
- No socioeconomic differences in diligence were observed in the samples studied at the high school and higher education levels.
- No significant difference in diligence was observed between the five ethnic groups studied at all levels, although in one study of high school students the mean diligence score (197) of a small Asian/Oriental sample appeared to be relatively higher than the combined mean (176) of the other four groups.
- A significant correlation existed between ability (ACT) and competence (Semester GPA).

- A significant correlation (.32) existed between diligence and competence.
- There was **zero** correlation between diligence and ability in all studies.
- The regression equation for predicting competence from diligence and ability (ACT) in one of the studies was:

Competence = .9662 + .0055(Diligence) + .0578(Ability)

This regression equation may be used to estimate predicted GPA for students based on their diligence and ability scores. Competence (GPA) was measured on an A = 4.00 and F = 0.00 scale. For example, a student with an ACT score of 20 and a diligence score of 100 is expected to have a GPA of approximately 2.67. If this student could become more responsible and improve the diligence score to 200, the expected GPA would be 3.22.

Method

Subjects

The samples for the study were drawn from students, parents, and educators from two selected suburban school districts in northeast Ohio. One school district (district X) consisted of predominantly African-American students and the other (district Y) was made up of 50% African American, 45% white, and a combination of other ethnic groups made up the remaining 5%. Intact classes of students from grades 3 - 10 were randomly selected to be representative of the student populations in each of the 9 schools in the two districts. Typically, two classes per grade level were used. The response rate for parents and educators was notably low compared with that of students. Tables 1 and 2 summarize the profiles of the student sample and the parent and educator sample, respectively. Percentages were rounded.

Procedures

This study involved the administration of four versions of the Diligence Inventory—the Parent/Guardian Form (DI-PG), the Educator Form (DI-EF), the High School Form (DI-HS), and the Elementary/Middle School Form (DI-EM). The intent was to examine the relationship between parent and educator support for student diligence in light of demographic differences such as gender, age, socioeconomic level etc. This level of support was compared with students' actual level of diligence. In order to make these comparisons, scores on the various instruments needed to be on the same scale.

Table 1. Demographic Profile of the Students

Demographic Variable	N	Percent
School District:		
X	1004	82
Y	227	18
Total	1231	100
Gender of Respondent:		
Female	625	53
Male	561	47
Total	1186	100
Ethnic Background:		
African-American	664	79
Asian	20	2
Hispanic	6	1
Native American	19	2
White	101	12
Other	28	3
Total	838	100
Gross Income of Household:		
Below $9,999	84	29
$10,000 - $20,999	35	12
$21,000 - $30,999	39	14
$31,000 - $40,999	32	11
$41,000 - $50,999	23	8
$51,000 - $74,999	22	8
$75,000 - $99,999	25	9
$100,000 and over	26	9
Total	286	99
Grade Level:		
Third	170	14
Fourth	256	21
Fifth	211	17
Sixth	181	15
Seventh	240	19
Eighth	83	7
Ninth	27	2
Tenth	63	6
Total	1231	100

Table 2. Demographic Profiles of Parents and Educators

Demographic Variable	Parent Sample N	Parent Sample Percent	Educator Sample N	Educator Sample Percent
School District:				
X	14	40		
Y	21	60	18	100
Gender of Respondent:				
Female	28	80	14	77
Male	7	20	4	22
Marital Status:				
Single	5	14	4	22
Married	25	71	11	61
Divorced	4	11	4	17
Ethnic Background:				
African-American	18	51	8	44
Asian	2	6		
White	15	43	10	56
Educational Background:				
Some High School				
High School Graduates	3	11		
Some College	9	26		
Bachelor's Degree	10	29	6	33
Some Graduate Education	3	9	2	11
Master's Degree	4	11	9	50
Doctoral Degree	4	11	1	6
Age of Respondent:				
30 years and under	5	14	5	28
31 - 40 years	13	37	4	22
41 - 50 years	17	48	7	39
51 years and over			2	11
Gross Income of Household:				
Below $30,999	6	17		
$31,000 - $40,999	9	22		
$41,000 - $50,999	3	9		
$51,000 - $74,999	5	14		
$75,000 - $99,999	2	8		
$100,000 +	9	26		
Number of Children:				
One	7	20		
Two	16	46		
Three	11	31		
Four or more	1	3		

(Table 2 Continued)

Demographic Variable	Parent Sample N	Parent Sample Percent	Educator Sample N	Educator Sample Percent
Grades in School (Includes overlaps):				
K - 3	8	23		
4 - 6	18	51		
7 - 8	8	23		
9 - 12	3	9		
Grades Taught:				
K - 6	11	61		
7 - 8	7	39		
9 - 12				
Teaching Experience:				
1 - 5 years	7	39		
6 - 10 years	1	6		
11 - 15 years	3	17		
20 years +	7	39		

The DI-EM was scored on a 3-point Likert scale as compared to a 5-point scale for the DI-PG, DI-EF, and DI-HS. In order to make comparisons between scores on the 3-point version ($DI\text{-}EM_3$) and the other inventories the scores on the $DI\text{-}EM_3$ were converted to an equivalent 5-point version ($DI\text{-}EM_5$) using the following formula: $DI\text{-}EM_5 = 55 + 2(DI\text{-}EM_3 - 55)$. For example, a score of 125 on the $DI\text{-}EM_3$ is equivalent to a score of 195 on the $DI\text{-}EM_5$. Wherever $DI\text{-}EM_3$ score means have been reported, the equivalent $DI\text{-}EM_5$ means have also been provided in parentheses so that the necessary comparisons could be made between scales.

A graduate assistant was assigned to supervise all the testing involving students at the schools, and to assist with the retrieval of the student performance measures from the school records.

Results and Conclusions

The reliability coefficient alphas of the Diligence Inventories - Parent/Guardian Form (.943), Educator Form (.801), High School Form (.903), and Elementary/Middle School Form (.876) compared favorably with the values found in previous studies, bearing in mind the small sample sizes associated with all the instruments except the DI-EM.

Parents

There was no significant difference between mothers and fathers in the diligence support provided their children. There was no significant relationship between the diligence support provided by parents and their marital status, educational background, age, or ethnic background. Though not significant, the relatively low support provided by parents who were involved in obtaining graduate education is noteworthy (Table 3). However, there was a significant relationship between socioeconomic level of parents and the support provided their children as shown in Table 4. Support for diligence was positively related to the income level of parents ($F_{7,27} = 2.61$, $p < .05$). The lowest support came from parents in the $41,000 - $50,999 bracket closely followed by the $100,000 and over bracket which were significantly different from each of the other socioeconomic levels (Table 4).

Table 3. Means and Standard Deviations of Parents' Diligence Support by Highest Educational Level Completed

Educational Level	N	Mean	Standard Deviation
High School Graduate	4	229.50	35.08
Some College	9	232.00	19.17
College Graduate	10	218.00	32.74
Graduate Non-Degree	3	190.00	49.36
Master's Degree	4	222.65	14.34
Doctoral Degree	4	227.00	10.39
Total	34	222.61	28.40

There was no significant relationship between the diligence support provided by parents who had children in grades K - 6 and the GPAs these parents reported for their children. However, a significant relationship existed between parents' diligence support and GPAs reported for children in the junior high school ($F_{2,4} = 9.05, p < .05$). Bearing in mind the small sample size ($n = 7$), there was a tendency for parents who gave greater diligence support to report higher GPAs for their children for two of the three categories, as summarized in Table 5. However, a seemingly anomalous situation was noted in that parents who reported the highest grades for their children tended to provide the least diligence support.

Table 4. Means and Standard Deviations of Parents' Diligence Support by Socioeconomic Level

Socioeconomic Level	N	Mean	Standard Deviation
$30,999 and less	6	223.16	27.47
$31,000 - $40,999	9	240.22	19.39
$41,000 - $50,999	**3**	**189.67**	**51.93**
$51,000 - $74,999	5	237.40	7.09
$75,000 - $99,999	3	225.00	11.27
$100,000 and more	6	210.00	28.11
Total	35	223.48	28.45

Table 5. Means and Standard Deviations of Parents' DiligenceSupport by GPAs Awarded - Grades 7 and 8

GPAs Awarded	N	Mean	Standard Deviation
Average (2.00-2.99)	2	244.00	1.41
Above Aver. (3.00-3.49)	2	251.00	7.50
Excellent (3.50-4.00)	3	207.33	9.28
Total	7	230.43	24.11

Educators

There was no significant relationship between the diligence support provided by teachers and their gender, marital status, educational background, age, socioeconomic level, grade level taught, and years of experience in teaching. Although significantly different at only the $p < .10$ level, African American teachers appeared to provide greater diligence support (217.12) than White (203.60) teachers ($F_{1,16} = 3.76$, $p = .07$). A significant relationship existed between teachers' ages and the diligence support they gave their students ($F_{4,13} = 3.04$, $p = .05$). As presented in Table 6, teachers between the ages of 26 and 30, and those over 50 years seemed to provide the least diligence support for their students.

Table 6. Means and Standard Deviations of Teacher's Diligence Support by Age

Age Categories	N	Mean	Standard Deviation
Between 21 and 25	3	213.30	17.61
Between 26 and 30	3	188.00	5.66
Between 31 and 40	4	214.75	17.82
Between 41 and 50	7	216.42	8.97
51 Years and over	2	191.50	10.60
Total	18	209.61	15.83

Students

There was no difference in student diligence among grades 3 to 8 based on ethnic background and socioeconomic level. However, there was a significant gender difference in diligence among students in grades 3 - 8 ($F_{1,1100} = 7.92$, $p = .005$), girls (125.8 (196.6)) tended to be more diligent than boys (123.45 (191.90)). A significant grade-level difference in diligence was obtained for grades 3 to 8 ($F_{5,1135} = 11.55$, $p < .0001$) (Table 7). Interestingly, third graders demonstrated the highest level of diligence followed by fourth, fifth, sixth, eighth, and seventh grade. There was no difference in diligence between ninth (194.44) and tenth (190.01) graders in the sample studied. Also, no gender difference was apparent at that level.

Table 7. Means and Standard Deviations Showing Grade Level Differences in Diligence

Grade Level	N	Mean DI-EM$_3$	Mean DI-EM$_5$	DI-EM$_3$ Standard Deviation
Three	170	127.99	200.98	13.78
Four	256	127.42	199.84	13.60
Five	211	125.77	196.64	13.34
Six	181	123.77	192.56	12.71
Seven	243	119.58	184.16	14.34
Eight	83	122.89	190.78	13.59
Total	1141	124.65	194.30	13.91

In grades 3 to 8, students who had positive self expectations (125.66 (**196.32**)) of success in life scored significantly higher than their counterparts who had negative self expectations (120.13 (**185.26**)) ($F_{1,7945} = 3.51$, $p = .06$). Also, students who believed that others had positive expectations (126.53(**198.06**)) of their success in life scored significantly higher than their counterparts who believed that people had negative expectations of them succeeding in life (116.73(**178.46**)) ($F_{1,780} = 46.09$, $p < .0001$).

Table 8 compares the means of the four groups under study—parents, educators, and the two levels of students (elementary/middle school and high school). It appears that parents tended to provide more diligence support (223.48) for their children than educators (209.61); and both parents and educators tended to demonstrate more concern for the success of their children/students than the children/students themselves.

Table 8. Comparisons of Means and Standard Deviations of Diligence Scores of Parents, Educators and Students

Study Groups	N	Mean	Standard Deviation
Parents	35	223.48	28.45
Educators	18	209.61	15.83
Students (3rd- 8th)	1141	194.30	27.82
Students (9th & 10th)	84	191.69	27.77

Summary, Discussion, and Implications

The purpose of this study was to examine the pattern of diligence displayed by students in two suburban school districts and to compare the average diligence of these students with the level of support generally provided by parents and teachers of students in these systems. The DI-PG was used to measure the support provided by parents/guardians, and the DI-EF was used to measure the support provided by teachers. A summary of the findings as they relate to parents, educators, and students follows in that order. A majority of the parents (89%) had education beyond the bachelors degree and a majority of them (71%) were married; 83% of the households represented income brackets upwards of $31,000.

Parents—There was no distinction in the level of support provided by mothers and fathers. This is not unusual in middle and upper-middle class households where both parents generally tend to place a high value on education. However, a significant relationship existed between the socioeco-

nomic level of parents and the support provided their children. The lowest support came from parents in the $41,000 - $50,499 bracket, closely followed by the $100,000 and over bracket. It is possible that the former income bracket represented parents who may have been pursuing advanced degrees, and the latter income bracket represented parents who may have been professionals or top executives who either tended to be away frequently or did not have time to spend with their children. Another explanation could be that the parents may have taken for granted their children's needs for the kind of support outlined in the DI.

Given the composition of the parent sample, it was not surprising that neither marital status, educational background, ethnic background, nor age differentiated between the level of support provided by parents. However, the relatively low support provided by parents who were in the process of obtaining graduate education is understandable in light of the demands on such parents to demonstrate competence in their own educational pursuits. Could it be that these parents assumed that their commitment could serve as models for their children. It will be interesting to find out if the opposite effect may have been created—students tending to be turned off by their parents who operate on very tight schedules in their attempt to balance work and studies.

There was no significant relationship between the diligence support provided by parents who had children in grades K - 6 and the GPAs these parents reported for their children. However, a significant relationship existed between parents' diligence support and GPAs reported for children in the junior high school. Bearing in mind the small sample size (n = 7), there was a tendency for parents who gave greater diligence support to report higher GPAs for their children for two of the three categories (average, above average, and excellent). However, a seemingly anomalous situation was noted in that parents who reported the highest grades for their children tended to provide the least diligence support. This could be interpreted to mean that such parents already have full confidence in their children's potentials and neither they nor their children saw the need for the type of support suggested in the DI.

Teachers—There was no significant relationship between the diligence support provided by teachers and their gender, marital status, educational background, age, socioeconomic level, grade level taught, and years of experience in teaching. However, ethnic background was a factor. African American teachers appeared to provide more diligence support than White teachers. One could speculate that African American teachers saw the need to be more nurturing than their White counterparts. Also, a significant relationship existed between teachers' ages and the diligence support they gave their students. Teachers between the ages of 26 and 30, and those over 50 years seemed to provide the least diligence support for their students. On the one

hand, the younger, beginning teachers could be demonstrating some degree of insecurity or inexperience with regard to diligence matters. On the other hand, the teachers at the uppermost age bracket could be suffering from teacher burnout and might be inclined not to be bothered with such matters so near to retirement.

Students—Demographic data were not available for the high school students in the sample. There was no difference in student diligence among grades 3 to 8 based on ethnic background and socioeconomic level. Contrary to previous findings, there was a significant gender difference in diligence among students in grades 3 - 8. Girls appeared to be more diligent than boys, which happens to be the more normal trend. A significant grade-level difference in diligence was obtained for grades 3 to 8. Interestingly, third graders demonstrated the highest level of diligence followed by fourth, fifth, sixth, eighth, and seventh grade. It must be pointed out that seventh grade represents an important transition from elementary to junior high school when students experience some problems in adjusting to a more autonomous world. There was no difference in diligence between ninth and tenth graders in the sample studied. Also, no gender difference was apparent at that level, contrary to the findings of previous studies.

Students in the elementary and junior high levels who expressed positive self-expectations of success in life scored significantly higher than their counterparts who had negative self-expectations. Also, students who believed that others had positive expectations of their success in life scored significantly higher than their counterparts who believed that people had negative expectations about their ability to succeed in life. it is therefore critical that parents and significant others project appropriate attitudes that will instill a sense of efficacy in their children.

In comparing the means of the four groups under study—parents, teachers, and the two levels of students (elementary/middle school and high school), it appears that parents tended to provide more diligence support for their children than educators, and both parents and educators tended to demonstrate more concern for the success of their children/students than the children/students themselves. This finding is not surprising given the difference in maturity levels between parents and their children, knowing the economic consequences of their children's maladjustment and possible failure.

Studies about diligence have the potential to explain student performance on the basis of **both** ability and effort (diligence). A major implication of this research is that an individual (student, parent, educator) can be encouraged to assume more responsibility for his/her level of achievement and heighten performance by increasing the level of diligence (or support for student diligence) that is more under direct control than ability. It is possible that subjects can benefit from merely completing the DI. The items themselves are

self instructive and help to stimulate self-directed learning for improved behavior that could particularly benefit students with borderline social competence skills.

Improving student achievement has become a priority for educators across this nation. Schools and school districts can engage in comprehensive **action research** projects that are based on data gleaned from the various versions of the DI. Such studies could lead to valuable suggestions for staff development on the part of school personnel, as well as training and intervention measures for parents and students that would translate into individual and institutional growth and greater overall effectiveness.

For example, one of the participating school districts in this study has responded by involving faculty members in dialogue sessions with parents to improve home-school communication. Parent education meetings are being scheduled to offer advice related to monitoring academic progress and promoting student diligence. In addition, staff development sessions will be provided to help school personnel heighten the level of diligence exhibited by students. Finally, presentations will be made to students demonstrating the impact greater diligence can have on their grade point average (GPA). Clearly, the use of Diligence Inventories with parents, educators, and students yields much useful information for improving both communication and academic achievement in our nation's schools.

Recommendations for Further Studies

This exploratory study has provided insights into the level of parental and teacher support for student diligence, and the importance of this kind of support to students' development. Because of the small sample sizes for parents and teachers, the findings are not as conclusive and generalizable as one could expect. To this end, there is a need to carry out more studies in order to understand more fully the nature of this aspect of parent involvement as well as the teachers' level of support. Although not exhaustive, the list that follows can serve as a starting point toward this endeavor.

1. There is a need to replicate the study with larger, more representative samples of diverse populations.
2. It will be interesting to correlate students' and parents' diligence scores.
3. The diligence support provided students by parents who pursue advanced degrees or are highly professional people seemed to be less than expected and needs to be explained.
4. Parents who reported the highest GPAs for their children provided the lowest diligence support. What are the profiles of these parents and students?
5. African American teachers provided more diligence support for their

students than White teachers. There is a need to validate this finding on a more appropriate sample in order to better understand this claim.

6. There is a need to establish the relationship between the age and experience of teachers and the diligence support they provide, especially beginning and retiring teachers.
7. What is special about the transition from elementary to junior high school that accounts for the significant drop in student diligence?

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