SCHOLARLY PROWESS OR LEARNED HELPLESSNESS? THE CASE OF NAZARBAYEV INTELLECTUAL SCHOOLS IN KAZAKHSTAN

Aizhan Ramazanova, Dana Kerimkhanova[1]

Research Department, Nazarbayev Intellectual Schools AEO, Kazakhstan

Abstract

As a part of ongoing research into graduate outcomes, the present paper focuses on the impact of teacher support in the Nazarbayev Intellectual Schools (NIS) on the class of 2010. Data on the 2010 cohort were collected in early 2015 from alumni and NIS teachers. A qualitative method was implemented for data collection. According to the results, in general, the respondents reported a high level of satisfaction with student support. Unexpectedly, the research uncovered putative negative effects from the "overly supportive" student support culture, including a lack of motivation during university studies, poor time-management, poor task completion abilities, and poor organizational skills. The paper concludes that in providing support there must be a balance kept between teacher support and developing students' ability to cope by themselves.

Keywords: student support, educational improvement, alumni studies, Nazarbayev Intellectual Schools, Kazakhstan

---

1 Corresponding author email: ramazanova_a@nis.edu.kz

Introduction

Student support usually implies 'ties' that provide students with 'supportive resources' (Wellman and Wortley, 1990, p. 558). According to Lacklin and Riche (2009), it is a provision of 'help or assistance students may need', 'from personal tutorial support to specific teaching contexts (such as 'learning support')' (p. 736). Lee et al (2011) defined it as a tool for 'optimizing [the] student learning experience' (p. 158). In other words, student support is a set of activities intended to raise or maintain student engagement and effective learning. It plays a crucial role especially in student transition from one school or education level to another (Morosanu et al, 2010, Liew et al, 2010, Hughes and Kwok, 2006) and is considered to be one of the inalienable parts of the learning process as well as of the socialization process.

Tait (2000) underlines three key purposes of student support: 'cognitive', which refers to developing the learning process by providing students with the learning materials adapted to their academic needs; 'affective', which ensures a supportive environment for students; and 'systemic', which implies creating an efficient, clear, and 'student-friendly' school management policy (p. 289). The first function also covers providing academic advising and assessment (Tait, 2000).

Student support as a component of an educational process as well as a focus for research is receiving considerable attention. The upsurge in student dropout rates and the systemic requirement for the increased effectiveness of education institutions serve as a rationale for this trend. It is widely believed that increasing the quality of student support services and its structure leads to a better learning environment. Student support, Lee et al. (2011) state, is bound up with 'student motivation and learning' (p. 155). Earwaker (1992) approached student support in terms of its usefulness and comfortableness to students: 'the aim in providing support is not simply to enable students to survive, but to ensure that they derive maximum benefit from their course and, indeed, from their whole experience of student life' (p. 23). Indeed, student support covers much wider issues than just academic or as Lee *et al* (2011) refer to it, 'instructional assistance'. It is also about having continuous interactions and establishing links on a psychological level with a student.

Despite the crucial role of student support in student learning, it is vital to consider its influence on student academic and professional achievement from a different prospective. This paper seeks an answer to the question 'What is the effect of the student support provided to NIS students on their future studies and career?' The research question considers the first and second purposes of student support, cognitive and affective, listed by Tait (2000).

The results are drawn from the study carried out among 28 alumni of Nazarbayev Intellectual School, Astana, Kazakhstan, who graduated in 2010, and 12 NIS teachers. This research is a follow up study choosing school graduates as a focus group, not students, for the reason the cohort had experienced both university studies and employment and so is able to evaluate what influence the study program had on their subsequent outcomes (Dinneen, 2016, Volkwein, 2010). Alumni are valuable sources of information on how they make use of knowledge obtained while studying at particular institution.

The interview method was used for gathering data for this research from alumni and NIS teachers, as it provides a "person, or group of people, a 'voice'… a chance to make their viewpoints heard and eventually read", allowing for fuller perspectives (Wellington, 2015, p. 139). The *purpose of the study* was to examine the influence of studying at NIS on students' preparedness for tertiary education and their future careers, and to inform the development of NIS educational policy. Our data analysis has revealed controversial respondent comments on the student support system.

The catalyst for initiating such research lies in the need to evaluate the efficacy of the NIS system. In addition, there is a limited amount of research in Kazakhstan that has been conducted on student and graduate perceptions about secondary education, and schools' capacity to prepare students for the future (Kurmangaliyeva and Abdrakhmanova, 2012, Poletayev, 2010). This study was conducted partly in response to a wider (and more problematic) external requirement to investigate the social and economic return on investment in NIS and its effectiveness in terms of preparing high quality human resources for the labor market. This purpose will be supplemented by subsequent research planned to continue this line of inquiry on a longitudinal and periodic basis and with the involvement of alumni of all years.

Nazarbayev Intellectual Schools

In 2008, at the initiative of the President of Kazakhstan, Nursultan Nazarbayev, NIS schools were established as 'pathfinders' (OECD, 2014) or 'flagships' (Nazarbayev, 2010) to improve the secondary education across the country and disseminate their experience to the mainstream school system in Kazakhstan.

The first NIS school was opened in Astana in 2009, and graduated its initial senior class in 2010. Today, NIS constitutes a national network of 20 trilingual schools for children selected according to their giftedness in mathematics and science. The school admission process functions on a competitive basis. The number of graduates since 2010 has increased significantly (2010 – 38 graduates; 2011 - 109; 2012 - 367; 2013 - 433; 2014 - 454; 2015 - 1699; 2016 - 2071).

NIS specialists - in collaboration with the Kolmogorov Boarding School of Moscow State University - developed the initial NIS curriculum. It was a curriculum for the in-depth study of mathematics and science, aimed at enhancing the scholarly prowess of students, developed within the framework set out to meet the National Standards for Secondary Education in Kazakhstan.

The assessment system developed for NIS differed significantly from the one used in public secondary schools. Instead of five-point grading, a ten-point rating system was used in the NIS schools.

At NIS schools, considerable emphasis is paid to the quality of instruction, thus it became 'comparable to those in OECD countries' (AEO NIS, 2013, in OECD, 2015, p. 95). Human resources are also an important issue: teachers of different ages from all over the country are selected on a competitive basis for teaching at NIS. Schools are equipped with a range of educational and technical resources such as science laboratories, library, computers, and interactive boards, etc. (AEO NIS, 2013).

Active student support is also specific to the NIS system albeit requirements for its provision were not recorded in any official document of the organization.

Student 'over supportive' culture effect

A voluminous literature about student support services in educational institutions provides evidence of their positive relationship with the academic achievement of students (Dauer and Absher, 2015), and the indirect association of teacher support with student results via course contentment (Lee et al, 2011) or student engagement (Klem and Connel, 2004) or through improved academic behavior (Chen, 2005). Moreover, high levels of student support can also result in better student self-reported emotional status, supportive peer relationships (Hughes and Kwok, 2006), decreased depression, and increased self-respect (Reddy et al, 2003).

Student support, however, is not always beneficial: its effectiveness depends on the support method, as it can help teachers establish relationships with students or destroy them. Support should be of quality—not characterized by weak relationships, but by strong bonds between teachers and students (Morosanu et al, 2010).

Moreover, there exists a problem in a support provision aspect, which refers to teachers' imperceptions of the borderline between supportive and 'over supportive' approaches. "Teachers do not perceive this philosophy and practice as fostering a 'culture of dependency' among students but instead view this as an opportunity to create an authentic community of learning" (Carter and Fenwick, 2001, p. 17). In 'over supportive' approaches, there exist fewer grit and character

education elements than in supportive cultures. Quinn et al (2002) argue that being too supportive leads to students' 'learned helplessness' (p.28). Garber and Hilsman (1992) contend that 'if children do not develop appropriate cognitive-behavioral repertoires, they may develop a sense of helplessness, poor performance, negative thought patterns, or depression' (Zauszniewski et al, 2002, p. 386). According to Zauszniewski et al (2002), students who believe they have more control, are better able to envisage problems, and believe that 'good outcomes are caused by their own actions' tend to have better academic performance and show higher results on IQ and achievement tests (p. 389).

This study raises the issue of over supportive culture and its ramifications for student motivation, skills and competencies development.

Method

The research on alumni perceptions was carried out in 2015. A qualitative method, namely the semi-structured interview, was chosen for 'exploring a problem and developing a detailed understanding of a central phenomenon' and 'interpreting the larger meaning of the findings' (Creswell, 2014, p. 16). As an interview is based on interaction, Cohen et al (2011) claim, it provides an opportunity for gathering data on 'complex and deep issues' (p. 409). According to Newby (2010), this method provides some freedom during data gathering for in-depth study of problems, and gives an opportunity to receive 'rich and even unexpected data, but requires more time, better preparedness, and scrutinizing of the interviewer' (Ramazanova et al, 2016).

The purposeful sampling strategy was implemented for data gathering. Twenty eight (74%) out of 38 alumni and 12 teachers agreed to participate in interviews.

Based on the research question, interview design themes and categories were predetermined. The QDA program was chosen as a tool for qualitative data analysis.
The project team discussed a range of ethical concerns in advance, and was concerned to minimize potential harm to participants. Before gathering the data, an informed consent form including information about research purpose, participants' rights, and data confidentiality was signed by each participant in duplicate. For data confidentiality provision, secure storage of data was ensured.

2010 NIS Alumni Achievements and Results

Based on the data collected, 2010 NIS graduates in general expressed satisfaction with the study at the NIS and reported that knowledge and skills developed there promoted successful

university studies. According to their final assessment results (in Unified National Testing), these graduates achieved high scores with an average of 118 out of 125.

One hundred percent of 2010 alumni were admitted to university and awarded national and international scholarships: six out of 38 became international students, whereas the rest chose to study in Kazakhstan. 15 students were accepted to study at Nazarbayev University, 'the first university in Kazakhstan that is committed to working according to international academic standards and guided by the principles of autonomy and academic freedom' (Nazarbayev University, 15.03.2017).

Unsurprisingly, in light of the program's focus on mathematics and physics, 82% of the alumni chose technical specialties such as mathematics, physics, engineering, information technology, and energy industry studies. Eighteen graduates are currently employed, while 20 are pursuing postgraduate studies. A majority of those pursuing postgraduate studies are studying abroad via the government-financed Bolashak International Scholarship.

Overall perception of NIS Alumni of the school environment

The research participants admitted that in comparison with comprehensive schools, at NIS there was a more significant focus on academic performance and developing leadership skills of students. The educational program, according to alumni opinion, was more difficult than in mainstream schools, and, therefore, they did not encounter significant subject-specific academic problems at universities. The provision of practicums was another advantage of NIS, because it enhances students' knowledge by establishing a connection between what students see and scientific ideas that explain a particular observation (Woodley, 2009).

Nevertheless, the NIS curriculum was based on the State Education Standards. It was focused mainly on the mastery of subject-field content and not so much on metacognitive strategies. Thus, the alumni report little emphasis placed on the development of organizational and time-management skills at NIS.

Moreover, education of gifted children in one school contributed to 'a strongly competitive environment', which encouraged students to strive and achieve higher results (Ramazanova et al, 2016). As Gottfried and Gottfried (1996) note, as compared with peers, gifted children have strong intrinsic academic motivation. This feature is common to all gifted children, regardless of their age, subject or school of education. According to the authors, intellectually gifted children tend to "enjoy the learning process to a greater degree" (p. 179). Gottfried *et al* (2005) name this motivation "gifted" (gifted motivation) (p. 172). This type of motivation contributes to the development of

academic performance, classroom activities, intellectual achievement, self-esteem and the achievement of goals after graduation (Gottfried *et al*, 2005). In addition, the motivation of learners —to a certain extent—is influenced by their peers and classmates. Peers play an important role in the development of students' knowledge and skills (Jackson, 2013). In the selective schools that took part in Jackson's study (2013), it was revealed that the high test outcomes of peers positively influences individual student's test results (*ibid*).

Despite the advantages of the NIS system, alumni also pointed to aspects that need to be developed in order to better prepare students for further studies. For example, some respondents reported that they found interacting with peers challenging at university because during the adaptation period they had conflicts with the graduates of other schools. This finding is to be discussed later.

Patall, Cooper and Allen (2010) observed that hectic study schedules lead to a lack of time for extracurricular activities. This observation is bolstered in our study. The timetable at NIS was characterized as a full-day regime, which led to a shortage of time for extracurricular and out-of-school activities. A majority of the respondents had to give up additional courses and stopped attending sport clubs. Alumni reported that one of the strong disadvantages of the study regime at NIS was a lack of emphasis on physical activities.

Results on Student Support: Bolstering its benefits

The balance of responses illustrates that the alumni have a high level of contentment regarding student support at NIS. The school set a high bar in terms of students' academic achievement and the development of their skills and competencies. One and a half year would appear to be a very limited amount of time to engrain particular skills and provide rich academic training. Therefore, the skills and knowledge that these alumni had achieved by the time of school graduation were a joint product of both the comprehensive and NIS school systems, and students' social environment. It is difficult to identify unequivocally the value added by NIS in terms of skills and values development.

At NIS, students were given a considerable amount of homework and were provided with self-study hours at school, which allowed students to jointly discuss difficult tasks and receive teacher consultancy when necessary (n.b., G = graduate; T = teacher):

> *"I think in terms of homework Intellectual school also has the advantage, that is, we in*
> *regular schools received the task and did it at home by ourselves, if we did not understand*

we came the next day with round eyes, but in the Presidential school there was no such situation because we prepared homework at school and could ask the teachers anything that we did not understand" (G13).

"...to NIS students everything necessary was provided, we were in order of students until 5 pm...even when teachers were at home in the evening, students used to send us their questions on aspects of homework that they did not know or understand, so we used to help them via email." (T5).

NIS students faced an abrupt transition from the comprehensive school system to the NIS system and this might be a reason for the constant student support provided by school staff. Teachers were at school the whole day and students had an opportunity to approach teachers at any time and consult with them on any issue. Students also say that their teachers were very caring and worried about them:

"...there was a supervisor who fussed with them like our second mom, when we were absent at lessons she called directly to our parents, to everyone ..." (G20).
"Absolutely everyone provided support from the class teacher, classmates to the administration itself ... worked professionally enough" (G7).

"...all teachers, they, firstly, from morning till evening were at school and at any moment it was possible to ask a question, and we can say that they have been like nannies for us because they treated us well" (G13).

Teachers provided their students with non-academic as well as academic support. Another potential rationale for intensive student support might be the responsibility of teachers for students' academic performance. They were in charge of student performance on the examinations, so there was a need for firm control over student attendance and their understanding of the taught subjects. In this regard, at NIS, students and teachers were expected to cooperate, because the latter's as well as school's success was evaluated in terms of students' academic performances in and outside the school:

"Support was generous. There was generous support from the part of the administration. Because I myself participated in mathematics competition,

participated in Olympiads, and the school itself pushed me forward, looked for

competitions, where I can speak, be noticed, and showed myself somewhere" (G16).

In communicating with the administration, alumni did not report any obstacles. They report the school administration was always open and repeatedly listened to their requests and suggestions to improve the school system and school life.

At NIS school, along with the supportive culture and bound within it, there was established a system of responding to student voice:

'... that is why we always tried to help student at any signal, mmm, at school we

always put emphasis on student voice to be heard and recognized by class teacher, a

person closer to student every day, and in fact during every break. You know we have

class hours and etc., that is why class teachers handled situation on every student."

(T8).

Hence, according to these comments, considerable attention was paid to student support, because it seemed to be crucial for students to feel and know that they are welcomed in the school, understood, and always supported, especially after the stage of transition from comprehensive school to NIS. Morosanu *et al* (2010) underlines, that 'trust, support and reciprocity' in school are supposed to lead to higher results (p. 668). The relationship between learner and teacher serves as an indicator of a mental approach of a student to learning and a secondary 'engine' of their academic progress. The NIS student support system assisted cooperation between teachers, parents, and the school and contributed to positive relationships between stakeholders. However, alumni reveal another side to their experience.

There are two sides to every coin

The literature shows that the consequences of excessive support provided to students by teacher are far-reaching. It can negatively influence student motivation, autonomy, and self-determination. Excessive support by teachers who 'adopt least line of resistance by taking too much responsibility for students' work could also contribute to this dependency' (O'Grady and Cottle, 2015, p. 6). Hence, over-supportive teachers can make students get used to the support provided so the students may constantly rely on it and not develop their ability to act autonomously.

The semi-structured interviews also revealed unintended effects of the NIS student support culture however.

'...time-management, we were given a lot of time [at university] and tasks were given for a week ahead and a lot of free time, and you would spend it downright, nobody pushes you as at school, and at university in this regard it was difficult to push yourself' (G26).

'time management, because student life is all about deadlines. If you do not manage time properly, you have to study all nights long just before the deadline' (G3).

'Well, you come to university after there had been too much attention at school. You know, we somehow got relaxed, I personally relaxed too much and I thought this is the way to get knowledge, we would be stuffed, there are lectures, nobody cares who attends, who is missing, who are late, it is all your problems, i.e. you start your independent life. I think, in schools, in senior years, it is necessary to introduce, I do not know, a mini-program, in order for learners to search for material independently, develop some independence maybe, because the main problem regardless of the school or university, is adaptation, transition' (G7).

Student support is of higher significance especially when it comes to the transition from one education level to another (Reddy et al, 2003; Inkelas et al, 2007). Transition usually is a marked problem for most students because of the inconsistency between requirements for students at secondary and tertiary institutions. It 'may affect the development of attitudes towards continuing learning at tertiary education and beyond' (Hillman, 2005, p. 1). During the transition process, according to Tinto (1988), a student goes through several phases such as 'separation', leaving previous cohort, 'transition', which refers to establishing contact with another group, and 'integration' (Hillman, 2005, p. 1). The first two stages are critical as a 'student may be at greatest risk in terms of withdrawing from study altogether or from a particular institution' (Hillman, 2005, p. 1).

From the quotes above, the difference between the NIS curriculum and university program is clearly seen. The NIS curriculum requires students to achieve a certain level of subject knowledge, and teachers assist students to ensure this requirement is met, while at universities working autonomously is widely practiced. The lack of a smooth transition between the NIS and university student support systems seemed to result in decreased motivation levels among students.

On the other hand, a student's lowered motivation possibly depends on the value of a task given or a student's perception of it. According to Kozanitis et al (2007), consistent with task value, a student chooses either 'mastery' or 'performance goal orientation' and 'help-seeking strategy' (p. 246). It is vital to highlight that a student's perception of teacher support and response to questioning has an indirect effect on choosing a learning strategy (*ibid*). Thus, those students who reported low motivation at university could perceive assignments as less important or have a weaker connection with university teachers than with NIS teachers.

Constant teacher support at school might have resulted in an underdevelopment of the learned resourcefulness of students, a group of abilities needed for 'regulating internal events such as emotions that might otherwise interfere with the smooth execution of a target behavior' (Akgun and Ciarrochi, 2003, p. 287) or, in other words, coping skills. Along with dealing with stress, resourcefulness refers to student motivation, organizational and time management skills, ability to meet deadlines, attitude towards course attendance and homework (Kennet and Keefer, 2006). The responses demonstrate that some alumni lacked resourcefulness to cope with stressful situations. Learned resourcefulness however is not necessarily linked to student autonomy (Rosenbaum, 1990 in Zauszniewski et al, 2002) or the academic performance of students (Zauszniewski et al, 2002). In the NIS context, the academic performance of students is not a problem, but student autonomy and the development of students' coping strategies, whether related or not, appears to be a serious problem. This implies that at NIS teaching character education to students lags far behind teaching academic content.

Thus, a balance between character and academic education may be critical for preparing students for post school life.

A study conducted among NIS alumni by Kerimkulova (2015) revealed that not enough attention is paid at NIS to the development of some skills, such as entrepreneurial skills, teamwork, and time management. The strong support that students had gotten used to, was lacking when they started their studies at university—there appeared a gap, which resulted in challenges. These kinds of difficulties students face at university can serve as a sign of something absent in their preparation for university studies.

On the other hand, this gap between student support mechanisms of school and university may also occur because of a disconnect between teachers' perception of students' readiness for university life and their actual readiness. As ACT[2] (2013) revealed, it also might be because of the disparity that exists between school and university teachers' perception of students' preparedness.

---

2 ACT is a US company administering tests among graduates on postsecondary study readiness for college admissions. http://www.act.org/content/act/en/about-act.html

Another issue that came to light after school graduation was the students' unreadiness for real-life situations. Too much support given by teachers and their overcaring relationships psychologically bonded students to this support. One of the teachers reported:

"When they came to us, I called them the stars, they were convinced that they have no problems" (T12).

Another teacher commented:

"...at that time there were no class teachers, we, subject teachers were mentors, there were mentors 'freed' [from other responsibilities], who like nunnies in kindergarten were following them [students] constantly." (T6).

Both teachers and students set high expectations, and an inability to meet them hurt the self-esteem of some learners, and it prevented them from managing challenges after leaving the school:

"...many graduates, including me could not enter Nazarbayev University, and it hurt our self-esteem very much. Some graduated from Nazarbayev University, but their GPA was lower than average, and it also hurt their self-esteem. There are some who graduated from university well, but they could not find an appropriate job, I see many who broke up easily, and could not find enough strength…, or moral fiber …" (G6).

On a global level, these kinds of challenges are not uncommon for students, even high-achieving ones. Getting accepted to university and studying there, however, is a quite different matter. The student leaves the environment where he has been supported and even indulged, and enters a starkly different environment where the level of competition is markedly higher, and where student support is considerably less closeting. A lack of psychological support has the potential to lead to depression or anxiety if the student does not possess the robustness to manage the transition. In order to overcome these challenges, NIS should reevaluate the support culture provided in the school and ensure that it is training students to act autonomously, acquire robustness, resilience and grit.

Conclusion

In conclusion, student support may have both positive and negative impacts on student motivation, engagement, and skills development. Those students who receive continuous support from teachers have a more positive mindset, have a better attitude towards learning, and are more satisfied with their studies (Klem and Connell, 2004). The results of our study demonstrated that student support mechanisms played crucial role for students especially during transition from one school to another and the period of adaptation to the NIS system. However, student support may lead to negative consequences when it turns to spoon-feeding, such as a low level of motivation, task procrastination, and poor organizational, time management, and resourcefulness skills.

The study is limited by the small sample size and peculiarity of the findings to the 2010 cohort only. A more comprehensive study should be designed for gathering more detailed and extended responses in future.

Despite this, the research joins the row of studies on student support and provides a view and evidence of the effects of overly supportive culture from different angle. This, in its turn, contributes to the development of the research literature on student support.

To sum up, this study suggests that at NIS significant attention should be paid to the development of personal autonomy and individuality of students and of skills such as time management, organizational skills, task-completion within the programme of student support or students' wider educational experience. A balance between providing academic knowledge and such capacities would provide a better preparation for university studies and for students' subsequent careers.

References

ACT. (2013). ACT National Curriculum Survey 2012: Policy Implications on Preparing for Higher Standards. Retrieved May 20, 2015, from ACT: http://www.act.org/research/policymakers/pdf/NCS-PolicySummary2012.pdf

AEO NIS (2013, April 18). Development Strategy 2020 of AEO Nazarbayev Intellectual schools. Retrieved December 12, 2014, from http://nis.edu.kz/ru/about/str-doc/

Akgun, S., and Ciarrochi, J. (2003). Learned Resourcefulness Moderates the Relationship Between Academic Stress and Academic Performance. *Educational Psychology*, Vol. 23, No. 3, pp. 287–294.

Carter, M., and Fenwick, L.T. (2001). Keeping a Close Watch: A Cultural Philosophy of School Change, *NASSP Bulletin*, Vol. 85, Issue 624, pp. 15–21.

Chen, J.J.L. (2005). Perceived Academic Support From Parents, Teachers, and Peers: Relation to Hong Kong Adolescents' Academic Behavior and Achievement. http://www.hfrp.org/publications-resources/publications-series/family-involvement-research-digests/perceived-academic-support-from-parents-teachers-and-peers-relation-to-hong-kong-adolescents-academic-behavior-and-achievement

Cohen, L., Manion, L., and Morrison, K. (2011). *Research methods in education* (seventh edition). London & New York: Routledge.

Creswell, J. W. (2014). *Educational research: planning, conducting and evaluating quantitative and qualitative research* (fourth edition). London: Pearson.

Dauer, R.A., and Absher, B. (2015). The Influence of Student Support Programs upon the Academic Success of Nontraditional Students. *International Journal of Education*, Vol. 7, No. 4, pp. 97–119.

Dinneen, P.L. (2016). Impact of Alumni Feedback on Faculty Member Attitudes about Course Design: A Multi-case Study. http://pqdtopen.proquest.com/doc/1762247796.html?FMT=AI

Earwaker, J. (1992). *Helping and Supporting Students. Rethinking the Issues*. Society for Research into Higher Education, Ltd., London (England). Published by Open University Press. Available at: http://files.eric.ed.gov/fulltext/ED415731.pdf

Gottfried, A.E.. and Gottfried, A.W. (1996). A Longitudinal Study of Academic Intrinsic Motivation in Intellectually Gifted Children: Childhood through Early Adolescence. *Gifted Child Quarterly*, Vol. 40, No. 4, pp. 179–183.

Gottfried, A.E., Gottfried, A.W., Cook, C.R., and Morris, P.E. (2005). Educational Characteristics of Adolescents with Gifted Academic Intrinsic Motivation: A Longitudinal Investigation from School Entry through Early Adulthood. *Gifted Child Quarterly*, Vol. 49, No. 2, pp. 172–186.

Hillman, K. (2005). The first year experience: the transition from secondary school to university and TAFE in Australia. *LSAY Research Reports*. Longitudinal surveys of Australian youth research report; No. 40

Hughes, J.N., and Kwok, O. (2006). Classroom engagement mediates the effect of teacher-student support on elementary students' peers acceptance: A prospective analysis. *Journal of School Psychology*, 43, pp. 465–480.

Inkelas, K.K., Daver, Z.E., Vogt, K.E., and Leonard, J.B. (2007). Living-learning programs and first-generation college students' academic and social transition to college. *Research in Higher Education*, Vol. 48, No. 4, pp. 403–434.

Jackson, C. K. (2013). Can Higher-Achieving Peers Explain the Benefits to Attending Selective Schools?: Evidence from Trinidad and Tobago. *Journal of Public Economics*, No. 108, pp. 63–77.

Kennet, D.J., and Keefer, K. (2006). Impact of Learned Resourcefulness and Theories of Intelligence on Academic Achievement of University Students: An integrated approach. *Educational Psychology*, Vol. 26, No. 3, pp. 441–457.

Kerimkulova, A. (2015). Perceptions of the Nazarbayev Intellectual Schools graduates about the role of NIS high school curriculum to prepare for studying at Nazarbayev University.

Klem, A. M., and Connell, J. P. (2004). Relationships Matter: Linking Teacher Support to Student Engagement and Achievement. *Journal of School Health*, Vol. 74, No. 7, pp. 262–273.

Kozanitis, A., Desbiens, J.F., and Chouinard, R. (2007). Perception of Teacher Support and Reaction Towards Questioning: Its Relation to Instrumental Help-seeking and Motivation to Learn. *International Journal of Teaching and Learning in Higher Education,* Vol. 19, No. 3, pp. 238–250.

Kurmangaliyeva, A.Sh., and Abdrakhmanova, G.A. (2012). Миграционные, карьерные и образовательные стратегии сельских школьников Казахстана [Migration, career and education plans of rural school students of Kazakhstan]. Retrieved from http://ecsocman.hse.ru/data/2013/02/04/1251416817/Kurmangalieva.pdf

Lacklin, A., and Riche, P. (2009). Reconceptualising student support: from 'support' to 'supportive'. *Studies in Higher Education*, Vol. 34, No. 7, pp. 735–749.

Lee, S.J., Srinivasan, S., Trail, T., Lewis, D., and Lopez, S. (2011). Examining the relationship among student perception of support, course satisfaction, and learning outcomes in online learning. *Internet and Higher Education, 14*, pp. 158–163.

Liew, J., Chen, Q., and Hughes, J.N. (2010). Child effortful control, teacher-student relationships, and achievement in academically at-risk children: Additive and interactive effects. *Early Childhood Research Quarterly, 25*, pp. 51–64.

McKenzie, K., and Schweitzer, R. (2001). Who Succeeds at University? Factors predicting academic performance in first year Australian university students. *Higher Education Research and Development,* Vol. 20, No. 1, pp. 21–33.

Morosanu, L., Handley, K., and O'Donovan, B. (2010). Seeking support: researching first-year students' experiences of coping with academic life. *Higher Education Research and Development*, Vol. 29, No. 6, pp. 665–678.

Nazarbayev, N. (2010, January). *The annual address to the people of Kazakhstan*.

Nazarbayev University (Access date 15.03.2017). About Us, http://nu.edu.kz/portal/faces/mainmenu/aboutus1?_afrLoop=10802060669061295&_afrWindowMode=0&_afrWindowId=null#%40%3F_afrWindowId%3Dnull%26_afrLoop%3D10802060669061295%26_afrWindowMode%3D0%26_adf.ctrl-state%3Df10oh2zjh_48

OECD (2014). Reviews of National Policies for Education: Secondary Education in Kazakhstan. Paris: OECD Publishing.

OECD (2015). OECD Reviews of School Resources: Kazakhstan. OECD Publishing.

O'Grady, A., and Cottle, V. (2015). *Exploring Education at Postgraduate Level: Policy, Theory and Practice.* Routledge. Available at: https://books.google.kz/books?hl=ru&lr=&id=rjc-CgAAQBAJ&oi=fnd&pg=PA3&dq=consequences+of+oversupportive+teachers&ots=YdfcH4DHld&sig=J-ZBjQdqdPX_Rv8XDDU8vuUkdYU&redir_esc=y#v=onepage&q=over%20supportive&f=false

Patall, E. A., Cooper, H., and Allen, A. B. (2010). Extending the School Day or School Year: A Systematic Review of Research (1985–2009). *Review of Educational Research*, Vol. 80, No. 3, pp. 401–436.

Poletayev, D.V. (2010). Мнение казахстанских школьников о перспективах обучения в российских вузах по сравнению с вузами других стран [The perceptions of Kazakhstani students about study perspectives at Russian universities in comparison with universities of other countries]. Retrieved from http://demoscope.ru/weekly/2010/0441/analit08.php

Quinn, F., Muldoon, R., and Hollingworth, A. (2002). Formal Academic Mentoring: A pilot scheme for first-year science students at a regional university. *Mentoring & Tutoring: Partnership in Learning*, Vol. 10, No. 1, pp. 21–33.

Ramazanova, A., Abisheva I., and Saltybayeva, Z. (2016). 2010 Alumni's Perceptions of Nazarbayev Intellectual Schools Impact on Preparedness for University Studies and Careers. Retrieved from http://www.eera-ecer.de/ecer-programmes/conference/21/contribution/37426/

Reddy, R., Rhodes, J.E., and Mulhall, P. (2003). The influence of teacher support on student adjustment in the middle school years: A latent growth curve study. *Development and Psychopathology, 15,* pp. 119–138.

Tait, A. (2000). Planning Student Support for Open and Distance Learning. *Open Learning,* Vol. 15, No. 3, pp. 287–299.

Volkwein, J. F. (2010). Assessing Alumni Outcomes. *New Directions for Institutional Research Special Issue: Assessing Student Outcomes*, Vol. 2010, No. 1, pp. 125–139.

Wellington, J. (2015). *Educational Research. Contemporary Issues and Practical Approaches*. Second edition. Bloomsbury Academic.

Wellman, B., and Wortley, S. (1990). Different Strokes from Different Folks: Community Ties and Social Support. *American Journal of Sociology, Vol*. 96, No. 3, pp. 558–588.

Woodley, E. (2009). Practical work in school science – why is it important? *SSR* December 2009, Vol. 91, No. 335, pp. 49–51.

http://www.gettingpractical.org.uk/documents/EmmaWoodleyarticle.pdf

Zauszniewski, J.A., Chung, C.W., Chang, H.J., and Krafcik, K. (2002). Predictions of Resourcefulness in School-Aged Children. *Issues in Mental Health Nursing*, No. 23, pp. 385–401.