

Correlates of Loneliness in Single Gender and Coeducational Boarding Schools in Murang'a County, Kenya

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Abstract

Loneliness remains a challenge among learners all over the world especially at adolescence stage. Major correlates of loneliness in schools have been identified as teacher-learner relationships, sense of belonging to school and learners' peer relationships. The interplay of these factors has not been widely studied in the gendered context of schools. The purpose of this study was to establish power of determination of learners' peer relationships, sense of belonging to school and teacher-learner relationships on loneliness, in single gender and coeducational sub county public secondary schools in Murang'a County of Kenya. The Krejcie and Morgan table was used to determine sample size of 435 participants from a population of 13,572 students in the sub county coeducational and single gender secondary schools in the county. Stratified random sampling method was used to select 231 boys and 204 girls, each type of school formed a stratum. A cross sectional survey research design was used in the study. Loneliness was measured using Perth aloneness loneliness scale while learners' peer relationships, teacher-learner relationships and sense of belonging to school were measured using scales developed for this research, with reliability index (α) of 0.81, 0.68, 0.79 and 0.82 respectively. Descriptive statistics and regression analysis was done using statistical package for social sciences (SPSS) program version 20. Lerner (1991) developmental contextualism theory was applied in interpreting the findings. The results indicated that girls were adversely affected by the presence of boys in all variables under observation except in learners' peer relationships. Learners' peer relationships, sense of belonging to school and teacher-learner relationships were protective against loneliness. Recommendations are that approaches to improve school climate and alleviate loneliness be anchored on peer relationships, teacher-learner relationship and sense of belonging to school.

Keywords: Coeducational, Gender, Loneliness, Peer Relationships, Sense of belonging to school, Teacher-Learner Relationships

INTRODUCTION

Loneliness has been of great concern in adolescents' psychological wellness. Many negative outcomes in life have been significantly linked to loneliness; for example, low academic engagement and achievement, poor psychological adjustment, poor social skills acquisition, mental and physical health challenges. There is also truancy, low academic performance and dropping out of school, increased risk cognitive impairment, depression, anxiety, and psychosis (Shevlin, Murphy, Mallett, Stringer, & Murphy, 2013). Depression has as well been an issue of concern (Qualter, Brown, Munn, & Rotenberg, 2010; Vanhalst, Luyckx, Teppers & Goosens; 2012), intention to leave school (Frostad, Pjil, & Mjaavatan (2015), Peer victimization and bullying, self-harm, poor Health and wellbeing, (Anna, Anja, Koiranen, Sunnari & Rautio (2013), increased mortality, (Qualls, 2014). A risk for poor social psychological development,

depression and anxiety have identified by Jobe-Shields Cohen and Parra (2011) as major factors. Loneliness is a major source of distress and a developmental risk that can predispose children to immediate and lifelong negative consequences (Sharabi, Levi & Margalit, 2012).

Loneliness is the perceived difference between the desired level of social relationships and the actual or experienced level for a person (Smith, 2018). The quantity of relationship could easily be seen as the number of friends in the persons' network while quality of a relationship could be viewed as personal openness to, and intimacy towards friends. A thought that dominates a lonely persons' mind includes a sense of inability to take control of the situation. This makes the person's efforts to fight loneliness weakened and loneliness ends up becoming chronic and painful. Loneliness is an emotional response to a mental process of evaluating the quantity and quality of relationships in one's life. It is expressed as emotional pain, sadness and social withdrawal. As observed by Houghton, Hattie, Wood, Carroll, Martin and Tan (2014) and Galanaki and Vassilopoulou, (2007), children, adolescents and adults describe experience of loneliness as undesirable painful aloneness. Thus loneliness can be disturbing to secondary school learners who are at adolescence stage of development. Taken together with other changes at adolescence, loneliness can be difficult to cope with.

In an inviting school model, people, policies, place, programs and school processes were identified as important components in determining school climate (Novak & Purkey, 2008). Further, people factors were singled out as the most important of factors influencing the school climate. In a school set up, inter-relationships between teachers, learners and staff members would be the determinants of the school social climate. Teachers in schools are special in the sense that they are in charge of organizing the contexts in which students as well as a teachers interact. Teachers determine the use of physical facilities, the curriculum, co-curriculum, and use time while they also facilitate in setting of rules and regulations determining what is rewarded or punished in institutions. Thus teachers have enormous influence on learners.

Several researches have established teacher-learner relationships, learners' peer relationships and sense of belonging to school as the most important of the human factors in a school's climate. While developing a measure for impact of social relations and values on education, Vickers, Finger, Barker and Bodkin-Andrews (2014), identified parental support, teacher-student relationship and learners' peer relationships as important areas when studying social environment in a school. They further noted that students' sense of belonging to school determined school engagement and loneliness among the learners. Teachers interact with learners in and out of class activities. Thus teachers serve instructional as well as socialization roles. The role of a teacher in a child's social and emotional development has not been studied systematically and many aspects of teacher – child relationship remain greatly un-researched as only a few studies have linked teachers and child's loneliness. Further, Galanaki and vassilopoulou (2007) propose a hypothesis that the quality of student teacher relationship may be a vehicle through which learners' loneliness is aggravated or alleviated. Also, Raufelder et al. (2013) made a detailed description of teacher-student interactions. In their ethnographic study they concluded that interactions between teachers and students were dynamic with cognitive emotional and socio-cultural components. Their relationships were shaped by social group norms, gender stereotypes and role expectations of both the teachers and students. Teachers' behavior

was influenced by students' conduct and each behavior was largely shaped by a set of beliefs about the other group. Students responded with warmth and sincerity to warmth and care from teachers. The students were enjoying more during reality of life moments they had with teachers. The student could easily detect genuineness or lack of it in the teachers' behavior. The study identified six areas in which teachers interacted with students, namely: power leverage, dualism, productivity, sympathy and identity. An example of power struggle comes when teachers are free to express their negatives like anger and reprimand for a student but a student will not respond in a similar direct manner. However, students use their numbers and solidarity to frustrate the teachers' efforts towards syllabus coverage.

While developing a sense of community scale for adolescence, Chiessi, Cicognani and Sonn (2010) observed that satisfaction of needs; emotional connection, opportunity to influence and social support were also important components of sense of belonging to the school. Empowerment of the learners to the extent that they felt powerful enough to effect changes in their environment was found to be a strong factor in determining sense of belonging to school. Thus schools that give learners room for discussion and democracy will foster more sense of belonging than those who are not. Further, Chiessi et al. (2010), found that girls lagged behind boys in sense of belonging which they attributed to different socialization and opportunities availed for the gender to act on. Lastly they observed that sense of belonging is very specific due to different environmental opportunities that interact to give a wholesome sense of belonging. Among the significant moderate influences on sense of belonging to school were identified as attachment to peers (learners' peer relationships) and personal wellbeing.

The study by Ngka and Yuen (2011) reveals that learners have capacity to relate to school as an entity at personal level while Akar-vural, Yılmaz-özelçi, Cengel, and Gömleksiz (2013) define sense of belonging to a school as a feeling of connectedness to school community. It is the persons' psychological membership of being one of them in the school. A low sense of belonging would lender the person inclined to reject support and positive influence from other learners and members of the school. As Mouratidis and Sideridis (2009) observed, perceived school belongingness is associated with student's academic and emotional adjustment and that loneliness predicted higher absenteeism, lower academic achievement, and problems in social relationships among middle school learners.

Peer influence becomes a strong determining force in the learners' life especially at adolescence as observed by Uruk and Demir (2003) and Asher and Paquette (2003) where peer relationships are seen as strong predictors of loneliness. Also, Blossom and Apsche, (2015) further noted that without satisfactory peer relations many children fail to develop healthy interpersonal relationships and will develop unhealthy social skills. Thus peer relationships among the learners are of great importance and concern for the teenagers' wellness. Adolescence is a transition stage at which rafts of changes are taking place. These are physical, emotional, biological and psychosocial changes that can easily overwhelm the teenagers. The individuation process demands breaking of ties with parental systems and establishing strong attachment to others especially peers. The severing of parental ties denies the teenager full social support and that can make them vulnerable and desperately in need of connection with peers.

Cross gender peer relations can be part of influence in coeducational school. For example, romantic relationships are some of the interactions between girls and boys.

Teens get lonelier if they perceive that others have had romantic relations with opposite gender member and they have not. They feel left out of the normative event. The feeling of being odd ones is heightened by the fact that romantic talk and experiences are central to teenage story time, (Woodhouse, Dykas & Cassidy 2011). This view was supported by Marshalls (2010) who found that intimate relationships led to intimacy loneliness as opposed to general relationship loneliness. Prosocial behavior especially towards the opposite gender is masked by the social stereotyping that could generate a different scenario from the single gender schools, where cross gender romance cannot be socially possible Kalkan and Epli-koc (2011) while investigating perceived social support from friends (learners' peer relationships), as a determinant of loneliness found that social support was significantly and negatively correlated to loneliness. Further, Asher and Paquette (2003) stated that peer acceptance is a strong correlate of loneliness. Ignoring friends during time of need led to greater sadness and loneliness. Children valued quality of friendship that was marked by lack conflicts or that conflict were resolved well, mutual benefit, sensitivity and giving help. They further observed that quality friendship was correlated to loneliness. Ellis, Mahdy, Dumas and Wolfe (2012) observed that learners' peer interactions were mainly in groups and the groups provided autonomy and identity. Groups provided rewards like recognition, social visibility, respect, power relationships and improved self-concept, while positively leading to reduced levels of loneliness.

Human factors also got support from Latsch (2018) who found that relationships at school play a critical role in adolescents' well-being and identified student-student relationship (learners' peer relationships), teacher-student relationship and students' sense of belonging to school as the major contributors to student emotional and psychosocial wellness; that is, in stress, depression and loneliness. While emphasizing on importance of school contexts, Raufelder, Bukwoski and Mohr, (2013) pointed out that teachers acted as adult role models and that schools should be studied as living places for learners and teachers. Teachers were also found to be gender sensitive as they believed their socialization role was to make sure that learners' behavior complied with social gender expectations. It is therefore important to investigate how gender composition of the school interacted with variables to influence learners' loneliness levels. Presence of boys has been observed to influence the behavior of girls and vice versa (Clark, 2004). It was further observed that girls got more affected by the boys' presence than boys' response to girls.

Developmental contextualism is a perspective that views human development as inextricably and reciprocally linked to the multiple contexts of individuals' lives (Lerner, 1991). It is expected of boys and girls to respond to teachers as well as other students with culture knowledge and expectations. Thus when gender composition changes, there is bound to be observable changes in social relationships in tandem with culture and other factors. In a school social system, the interaction of sense of belonging to school, teacher-student relationships and learners' peer relationships is expected to be in a such a way that a change in one area affects the other area of the schools' social relationships. Findings suggest that adolescents' sense of belonging involve four distinct school-experience factors: generalized connection to teachers; connection to a specific teacher; identification and participation in official schools sanctioned activities; and perception of fitting in with peers (Wallace & Chuon 2012). The interplay between the variables under different gender context has not been fully understood.

Statement of the problem

Loneliness is dependent on social relationships in schools. Gender composition is also known to influence how boys and girls interact in a school context and thus determine the social relationships in a school. How these factors combine to influence loneliness levels in specific gender context is little known. Specifically this study aimed at; -

- 1). Comparing boys' and girls' loneliness, teacher-learner relationship and learners' peer relationship in single gender boarding and coeducational boarding schools.
- 2) Establishing gender differences in loneliness, teacher-learner relationship, learners' peer relationship in single gender boarding and coeducational boarding schools.

METHODOLOGY

This study was carried out in Murang'a County in central Kenya; mainly a rural area with one main ethnic group of the Agikuyu. This was advantageous as other social contexts and socialization influences would be minimized. Schools are classified according to form one catchment area as national, Extra County, county and sub county schools. Further schools can be single gender or coeducational boarding or coeducational day which admits learners from within the Murang'a County. This was done to reduce cross cultural influence on gendered social interactions. This research was done in the sub county single gender boarding and coeducational boarding schools. A cross sectional survey method was chosen that could capture the interaction of the variables namely: loneliness, teacher-learner relationship, learners' peer relationships and sense of belonging to school. There were 16 coeducational and 23 single gender boarding schools in Murang'a County with a population of 99,572 learners. Stratified random sampling method was done to select 12 out of 39 schools that participated in the study each type of school forming a stratum. All form two students in the schools identified and present on the day of questionnaire administration participated in the study. A total of 456 questionnaires were administered and only 21 were incomplete or lacked vital information and were discarded. The high return rate of 95.4% was due to administration and collection of questionnaires in a scheduled session. A resultant sample of 435 learners was considered adequate according to Krejcie and Morgan (1970) table. The form twos were chosen because they were in middle adolescence and had stayed in school for a time enough to be rich in social relationships variables under the study. A total of 192(87 boys and 105 girls) participants in coeducational boarding schools and 243(144 boys and 99 girls) in single gender boarding resulted. Research instruments were compiled into a self administered questionnaire that was used to collect data.

Instrumentation

Sense of belonging to school scale

The scale utilized six statements relating to sense of belonging to a school. The scale was adapted from a school sense of belongingness scale developed by Akar-vural, et al., (2013). It consisted 6 items relating to feeling about the school. For example, "I am unhappy in this school" and each statement had five responses' levels forming a likert scale. The responses ranged from strongly agree, agree, not sure, disagree and strongly disagree. The respondents were requested to indicate the word or words that closely described their feeling towards the school at the time of this research. The scoring was done in such a way that a high score corresponded to a good relationship (strongly agree= 5 agree=4 not sure= 3 disagree 2 and strongly disagree=1) for positively

worded statement. An average score was calculated by dividing each respondent's scores for six statements by six. Thus scores ranged from 1 to five. The reliability index for this scale was $\alpha=0.82$

Learners' peer relationships scale

Learners' peer relationships scale utilized six statements with graded response on a likert scale. The statements included learners' perception of their relationship with others. For example, "I feel supported by learners in my school". Relationships in the school were not limited to the classmates. The scoring was done in such a way that a high score corresponded to a good relationship (strongly agree= 5 agree=4 not sure= 3 disagree 2 and strongly disagree=1) for positively worded statements. A single representative mark for friendship a particular participant was calculated by dividing the total score by six (the number of items). Therefore, each respondent mean score for peer relationship was placed somewhere between 1 and 5. The reliability index for this scale was $\alpha=0.81$

Teacher-learner relationship scale

Teacher-student relationships scale was developed by the researcher and comprised of six statements articulating the relations between teachers and learners. The responses were in a likert scale from strongly agree to strongly disagree. The statements were scored from 5 to 1 (strongly agree= 5 agree=4 not sure= 3 disagree 2 and strongly disagree=1) for positively worded statements. The negatively worded statements were scored in a reverse manner so that higher score reflected better relationship with teachers. For example, "I have no teacher whom i can tell my problem" was scored as follows: strongly agree= 1 agrees=2 not sure= 3 disagree 4 and strongly disagree=5. An average score for teacher- student relationship was calculated by dividing raw score for the six items by six. Thus the final score ranged from 1 and 5. The scale was discussed by faculty members for construct validity. Reliability index was calculated for the scale and found to be good ($\alpha=0.78$).

Perth aloneness loneliness scale

Perth aloneness loneliness scale is a multidimensional scale that measures loneliness using 24 likert scale items covering four areas, namely friendship, isolation, positive attitude towards solitude and negative attitude toward solitude. The scale was developed by Houghton et. al (2014) in Perth, Australia. The scale uses six point descriptors; *-never, rarely, sometimes, often, very often, always*. These items are worded such that there was a balance of negative and positive items. Scoring was on a 1-6 giving a maximum score of $6 \times 6 = 36$ for each sub scale. Total for each subscale was divided by six to get a representative score for the participant. Total loneliness score was then determined by adding the average scores for each of the four subscales, higher score corresponded to increased feelings of loneliness. The reliability index for this scale was $\alpha=0.83$.

Procedures

Permissions were obtained from national commission for science, technology and innovation, ministry of education and the county government. The instruments were piloted in a neighbouring County of Kiambu in similar schools. Principals of the schools selected for research were contacted to schedule time for instruments to be administered. Four research assistants were trained and administered the questionnaire as arranged with the school Principal during normal school time. The questionnaire took about 30 minutes and they were collected immediately after the session. The

questionnaires were perused for completeness and those with missing data discarded. Data was coded and computed for analysis. Statistical package for social sciences (SPSS version 20) was used to calculate means, standard deviations and other descriptive of the sample. T-tests were conducted to test differences in loneliness while correlations were calculated to show relationships between variables.

RESULTS AND DISCUSSIONS

One of the objectives of this research was to compare loneliness, teacher-learner relationship, learners' peer relationship and sense of belonging to school, of boys and girls in single gender boarding and coeducational boarding schools. To achieve this aim, the mean scores of loneliness, teacher-learner relationships, learners' peer relationships and sense of belonging to school were calculated per gender and school type. The second aim was to establish correlations between loneliness, teacher-learner relationships and sense of belonging to school, of boys and girls in the single gender and coeducational boarding schools. To achieve this aim Pearson correlations coefficients between the variables were also calculated. To test the hypothesis, t-test was carried out between loneliness scores for girls and boys in the two school types. Results are in table 1

Table 1: Mean Scores, Standard Deviations, T-test, and correlations of loneliness, TLR, SBS LPR per gender and school type

Gender	Variable	School type	N	Mean	Std deviation	Difference Significance	TLR	SBS	LPR
Boys	LO	Single GB	144	2.81	0.65	p>0.05	-	-	-
		Coed B.	87	2.79	0.63		0.29**	0.34**	0.36**
	TLR	Single GB	144	3.76	0.89	p<0.05	-	-	-
		Coed B.	87	4.06	0.67		0.173	-0.196	-
	SBS	Single GB	144	3.67	0.98	p<0.05	-	-	-
		Coed B.	87	3.71	0.99		-	0.47**	0.38**
LPR	Single GB	144	3.52	0.56	p<0.05	-	-	-	
	Coed B.	87	3.65	0.51		-	0.57**	0.49**	
Girls	LO	Single GB	99	2.94	0.83	p<0.05	-	-	-
		Coed B.	105	3.03	0.79		0.33**	0.33**	0.33**
	TLR	Single GB	99	3.96	1.00	p<0.05	-	-	-
		Coed B.	105	3.61	0.82		0.28**	0.24**	0.139
	SBS	Single GB	99	3.63	1.03	p<0.05	-	-	-
		Coed B.	105	3.25	0.95		-	0.71**	0.75**
LPR	Single GB	99	3.59	0.54	p<0.05	-	-	-	
	Coed B.	105	3.53	0.46		-	0.32**	0.29**	

Key: LO=loneliness TLR=teacher-learner relationship SBS=sense of belonging to school LPR=learner peer relationships. GB= gender boys Coed B= coeducational boarding. Level of significance *= p<0.05 **=p<0.01

Testing of hypothesis

The hypothesis stated that there is no statistically significant difference between single gender schools' girls' loneliness and coeducational schools' girls'.

Boys in single gender boarding school had a higher loneliness mean score of 2.81 compared to 2.79 in coeducational boarding schools. However, T-test showed that there were no significant differences in the two loneliness levels' mean scores, ($t_{(241)} = -1.29, < 1.96$) $p > 0.05$. Girls in single gender boarding school had a lower loneliness mean score of 2.94 compared to 3.03 in coeducational boarding schools. T-test showed that there were significant differences in the two loneliness levels' mean scores ($t_{(190)} = -2.22, < 1.96$) $p < 0.05$. Thus we reject the hypothesis and conclude that girls in coeducational schools are lonelier than those in single gender boarding schools. It is observed that coeducational boarding institutions favour boys but cause more loneliness in girls. It is observed that girls were lonelier in coeducational boarding schools than in single gender boarding. The presence of boys affected girls more than boys were affected by girls' presence. These findings agree with Clark, (2004) who observed the same kind of influence on science and language performance. This resonates with Brutsaert' (2006) observation that the dominant gender will determine the culture of the school. In the region, dominance of men seems to stretch into schools and girls take second position. This position influences the way girls form and relate to others like teachers and experience sense of belonging to school. Contrary to the boys, girls would be better in a single gender boarding school while boys would be better in coeducational boarding school. Therefore, a wider consideration is needed when schools are being categorized as coeducational as the outcome is negative for girls.

Teacher-learner relationships

Boys in single gender boarding school had a lower teacher-learner relationships mean score of 3.76 compared to 4.06 in coeducational boarding schools. Girls in single gender boarding school had a higher teacher-learner relationships mean score of 3.96 compared to 3.61 in coeducational boarding schools. These findings point to the fact that boys competed for teachers' attention better than girls, leading to better relational levels for boys in coeducational schools. Teachers were found to allocate a lot of time to boys in an attempt to control their behavior Clark (2004). Gender stereotypes were at play in mixed gender schools due to stereotype threat accessibility with girls on the receiving end (Brutsaert 2006). The kikuyu ethnic group is a patriarchal society where status of girls and women comes after that of boys and men. With this training from families and being reinforced by teachers as observed by Baig (2014), the girls ended up settling in lower than boys' position.

Sense of belonging to school

Girls in single gender boarding school had a higher sense of belonging to school mean score of 3.63 compared to 3.25 in coeducational boarding schools. Boys in single gender boarding school had a lower sense of belonging to school mean score of 3.67 compared to 3.71 in coeducational boarding schools. It is observed that sense of belonging to school for girls was adversely affected by presence of boys. Chsessi, Cicognani and Sonn (2010) found that girls lagged behind boys in sense of belonging to school which they attributed to different socialization and opportunities availed for the gender to act on.

Learners' peer relationships

Girls in single gender boarding school had a higher learners' peer relationships mean score of 3.59 compared to 3.53 in coeducational boarding schools. Boys in single gender boarding school had a lower learners' peer relationships mean score of 3.52 compared to 3.65 in coeducational boarding schools. It is observed that there were no significant differences between levels of learners' peer relationships despite presence

of the other gender. This could mean that there were minimal cross gender relationships which would have brought some changes in the peer relationships for coeducational schools as would be implied by Woodhouse, Dykas and Cassidy (2011) and Marshalls (2010). It is possible that cross gender friendships were minimal due to a great surveillance aimed at gender separation by teachers in the boarding schools.

Correlations

Loneliness was found to be inversely and highly significantly correlated to teacher-learner relationships, learners' peer relationships and sense of belonging to schools for girls in both single gender and coeducational boarding schools. The negative relationship indicates that when the variable increases the level of loneliness decreases. This observation is supported by Latsch (2018) who observe that teacher student relationships, peer relationships and sense of belonging to school were significantly correlated to loneliness. We can conclude that teacher-learner relationships, learners' peer relationships and sense of belonging to schools are protective factors against learners' loneliness. For single gender boarding school boys, loneliness was inversely and highly significantly correlated to teacher-learner relationships, learners' peer relationships and sense of belonging to schools. However, for coeducational boarding school boys only learners' peer relationships were significantly correlated to loneliness. Both boys and girls had loneliness being negatively correlated to teacher-learner relationships, learners' peer relationships and sense of belonging to schools. But coeducational boys were only sensitive to the peer relationships in a significant manner. The observation may be an outcome of boys coalescing in presence of girls to enforce stereotypic behaviour among girls. The fact that boys were satisfied with general friendships unlike girls who looked for close and few relationships, (Brutsaert 2011; Clark, 2004; Baig 2014) could contribute to the reduced response. Further, behaviour of the teachers could satisfy the general level of relationship required by boys making it non issue in the experience of loneliness.

It is further observed that teacher-learner relationships, learners' peer relationships and sense of belonging to schools were positively correlated and more strongly for girls than boys. The positive relationship means that an increase in one variable causes a proportional increase in the other. In practical terms it means that a change in teacher-learner relationship cause increases in learners' peer relationships and in sense of belonging to school. It gives educationists pillars of desired changes in schools' climate. Similar observations were made by Novak and Parker (2008) Vickers et al (2014) and Latsch (2018).

CONCLUSION AND RECOMMENDATIONS

The data supports the observation that girls will be affected adversely by the presence of boys in a coeducational school in multiple areas of teacher-learner relationship, sense of belonging to school and loneliness but not in the learners' peer relationships. More factors that can be influenced negatively due to coeducation need to be investigated to build a holistic view of what happens to girls in coeducational schools.

Correlations of loneliness and teacher-learner relationships, sense of belonging to school and learners' peer relationships were all negative. The correlations were also highly significant for all girls regardless of the school type. This confirms that these variables were protective against loneliness among learners. And the girls were more responsive to the changes in the human relationships and that of the school. Reasons

leading to some of the variables becoming weakly and insignificantly related to loneliness especially for boys requires further research. It can be further concluded that sense of belonging to school, teacher-learner relationships and learners' peer relationships are a major component of school climate and more importantly must be included in management of learners' loneliness.

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