Journal of Environmental and Tourism Education Vol. 8 No. 1 June 2025

Lecturer-Student Symbiotic Relationship And Students' Academic Integration Among The University Of Calabar Library And Information Science Students

By
[1]Mary Sunday Enidiok,

[1]Blessing Etukudo Ogunjimi,

&
[1]Christopher John Mkpufin

[1]Department of Library and Information Science,
University of Calabar, Calabar.
maryenidiok@gmail.com; blessingetukudor@gmail.com;
jchristophermkpufin@gmail.com

Abstract
The survey study was undertaken to investigate lecturer-student symbiotic relationship and students' academic integration among the University of Calabar library and information science students. Two research questions were raised to guide the study. The study population consisted of sixty (60) Year 1and 2 students of the 2024/2025 academic session. Given the small population size, the researchers utilized a census approach whereby the entire 60 students were involved in the research. A structured questionnaire titled Students and Lecturers Symbiotic Relationship Questionnaire (SLSR) was constructed for data collection. Descriptive analysis (involving frequency and simple percentages) was the statistical technique employed to analyse the research questions. The result of the analysis revealed that there is a positive perception of the lecturer-student relationship, as well as high level of academic integration among the students in the Department of library and information science, University of Calabar. Based on the findings of the study, it was recommended that the lecturers should maintain and solidify their symbiotic relationship with the students and that the University administrators should present opportunities for informal interaction between the lecturers and students beyond the walls of the classroom to improve their social and academic integration
Keywords: Symbiotic relationships, academic integration, student-lecturer relationship, teaching-learning process.

Introduction

Learning can be made a pleasurable task when the teachers and students work well together. This is because one of the determinants of effective teaching is the level of social relations

established between the lecturer and students. It is believed that the way lecturers behave has an impact on how students view the classroom environment and their relationship with them, due to the fact that when the students feel that their lecturer is supportive, they tend to perform better academically.

Hence, the student-lecturer relationship is one of the most important features in the context of learning, because the students need a lecturer to learn and the lecturer needs the students to teach, as one cannot exist without the other; it is a symbiotic relationship. It is obvious that students and lecturers within the University community come from different socio-cultural, political, religious and racial background. This diversity can be subsumed when the lecturers and students develop and maintain a relationship that enables them to live and work amicably in order to attain a successful academic integration, promote academic excellence, and enhance student-lecturer interaction.

The lecturers play a critical role in enhancing students' academic integration, this is true of the fact that when the students feel that their lecturers are not supportive, they become less interested in learning and other classroom engagements. Therefore, the ability of a student coming from a secondary school system in which there was a close interaction with the teachers, to adapt to their university academic lifestyle is linked to their ability to enjoy such close relationship with their university lecturers. This is because lecturers are considered as mentors who do not just pass on their expertise and experiences in their respective fields of learning to their students, but also guide them through the intricacies of the university education, lend moral support, and provide academic and career counselling which enhances the academic integration of the students.

Academic integration is an indicator of the students' positive performance and level of social adaptation to the teaching-learning process. It defines students' ability to collaborate with each other, solve their academic problems as well as maintain a good study habit. It contributes to personal growth of the student and helps solve environment-related problems, as low level of academic integration leads to a decline in future academic attainment. Academic integration is basically the level of academic progress, cognitive growth, and having positive learning experiences (Tinto, 2015; Enidiok, Richard, Ama-Abasi & Omoniyi, 2024)

The University of Calabar like other educational institutions, aims to provide quality education to her students. However, the quality of education may be hindered by a poor symbiotic relationship between the lecturers and the students. It is against this backdrop that the

researchers intend to investigate the lecturer-student symbiotic relationship and students' academic integration among the University of Calabar library and information science students.

Statement of the problem

A student admitted into the Department of library and information science in the University of Calabar is expected to spend four academic sessions made up of eight semesters. The extent to which the students are willing to attend lectures, do assignments and develop interest in any course has to do with their perception of the school environment and the attitude of their lecturers towards them. Hence, a symbiotic relationship that promotes effective teaching and learning is at the core of any university education. The lecturer-student relationship is viewed as the anchor point in which the student perceives that the lecturer has his best interest at heart.

A successful teaching-learning outcome can be attained when the students perceive that their relationship with the lecturers is friendly, meaningful and relevant to them, as this usually averts students' negative feelings towards the university academic life. This implies that if the students do not feel loved and accepted by their lecturers, they may likely develop a negative attitude towards the learning process, which may translate into poor students' academic integration. It is against this backdrop that the study was conducted to assess lecturer-student symbiotic relationship and students' academic integration among the University of Calabar library and information science students.

Objectives of the study

The main objective of this study was to investigate lecturer-student symbiotic relationship and students' academic integration among the University of Calabar library and information science students.

Specifically, the study sought to:

1. Determine the perception of students on lecturer-student relationship in the Department of Library and Information Science, University of Calabar.
2. Ascertain the level of students' academic integration in the Department of Library and Information Science, University of Calabar.

Research questions

The following questions were raised to guide the study:

1. What is the perception of students on lecturer-student relationship in the Department of Library and Information Science, University of Calabar?
2. What is the level of students' academic integration in the Department of Library and Information Science, University of Calabar?

Literature review

The lecturer-student relationship according to Rimm-Kaufman and Sandilos (2012), is the bond that exists between lecturers and their students with the goal of improving the learning outcomes of students. It is that relationship between a lecturer and a student that provides a link between them, allowing for either a conducive or non-conducive learning environment. This was in line with the assertion of Boateng (2012), that one of the factors that can predict effective teaching is the social relations established between the lecturer and students, as lecturers' contact with students in and out of the classroom is very important in students' motivation which helps the students to respond to an increasing complex global environment. In line with this, Wentzel (2003) opined that a friendly relationship between teachers and students could encourage learning, academic performance and achievement of students. This is true of the fact that a healthy relationship between the lecturers and students can positively influence students' academic, personal and social integration in the school environment.

The basic qualities that promote a positive relationship between lectures and students was expounded by Kim (2021) to include a good communication style, mutual respect, a positive and patient attitude, student equality, and timely praise. This is because the teachers who possess these qualities in good measure are more likely to become the student's 'favourite'. This was also reiterated by Lau (2003) who opined that a constructive and close interactions between the students and their lecturers can facilitate students' academic performance, educational experiences and greater academic and personal development. The lecturer-student interaction can occur at various places including the lecture halls, the laboratory, and office. Irrespective of where it occurs, it is at the core of university experience associated with student overall academic integration.

The importance of lecturers knowing their students' names was postulated by Emeka (2015), as such students would become more academically encapsulated with a sense of endearment to those lecturers. Also, related research on student-faculty interaction conducted by Wirt and Jaeger (2014) revealed that frequent meetings between students and the faculty board improves students learning outcomes. on the other hand, Mamiseishvili (2012) expounded that when lecturers provide academic counselling services such as helping students in selecting courses, choosing a major, and utilizing opportunities like study abroad, summer schools and extracurricular activities to students, they tend to improve in their academic persistence and integration.

Many studies have however looked at the correlation between lecturer-student relationships and academic achievement, but the results have been mixed, with various degrees of association. For example, some researchers (Gunuc, 2014; Krstic, 2015) discovered that lecturer-student relationships and students' academic performance are related significantly. However, a number of studies on lecturer-student relationship and academic achievement tend to give different result. For instance, a study of 182 students of a high performing and a low performing high school by Apeh and Dagwa (2019) showed a weak positive correlation between lecturer-student relationship and students' academic integration. However, the study found a positive significant relationship between lecturer-student relationship and motivation. Other studies have also revealed that there is no significant relationship in the correlation between lecturer-student relationship (e.g. a caring teacher) and academic achievement (Walters & Soyibo,1998; Aloysius & Torosco, 2022). A study by Enidiok, Ogunjimi Omoniyi and Mkpufin (2024) also revealed that the extent to which students are willing to integrate with the potentials of entrepreneurship education depends on their perception of the roles played by their lecturers in teaching the course.

Given the fact that the association between the lecturer-student relationship, learning behaviours, and learning outcomes is complex, Apeh and Dagwa (2019) posited that for the quality of the lecturer-student relationship to be strengthen, efforts should be made by the university administrators to build better and stronger lecturer-student relationships by providing opportunities for informal interaction beyond the classroom environment; this is because the quality of the lecturer-student relationship can be connected to the students' enthusiasm to study.

Despite the many benefits of lecturer-students symbiotic relationship, Roorda, Koomen, Spilt, and Oort (2017), postulated that many students still have a negative perception of their teachers and this seems to have a negative influence on their academic integration. Corroborating this postulation, was Oduh and Agboola (2019), who asserted that lack of commitment and negligence of lecturer in their methods of teaching and availability to help the students in solving both academic and psycho-social problems could also affect the students' learning outcomes. They further identified the fact that teachers' exploitation of students as well as sexual assault on female students by male lecturers could also be factor straining a sound relationship between lecturers and students and consequently impeding good academic achievement. The result of this strained relationship according to Boynton and Boynton (2005) is that students may challenge rules and disregard procedures if they sense that their lecturers do not value or respect them, as every student deserves equitable access to an affirmative, considerate, and compassionate educational environment that augments their enthusiasm for learning. A commitment on the part of lecturers to foster respect and other cultural values could

equally lead to students' utilization of library resources and consequently their academic integration (Egbe and Enidiok, 2020).

Research methodology

This study employed a descriptive survey research design. The population of the study comprised of sixty (60) year one and two students of the Department of library and information science, University of Calabar during the 2024/2025 academic session. Given the small population size, the researchers utilized a census approach whereby the entire 60 students were involved in the research. A structured questionnaire titled Students and Lecturers Symbiotic Relationship Questionnaire (SLSR), was used as instrument for data collection. The instrument was constructed with the help of an expert in Test and Measurement, who validated the instrument. It was further tested on a different group of students from the department of Sociology in the University of Calabar to ensure its reliability using Cronbach Alpha method and the reliability coefficient obtained ranges from 0.75 to 0.87 which was considered high enough for the instrument to be used for the study. The questionnaires were administered personally by the researchers, and all questionnaires were retrieved at the spot for analysis giving a hundred percent (100%) returned rate. The instrument was analysed using simple percentages.

Results

Research question one

1. What is the perception of students on lecturer-student relationship in the Department of Library and Information Science, University of Calabar?

Table 1: Perception Of Students On Lecturer-Student Relationship (N=60)

S/N	STATEMENT	SA	A	SD	D	Decision
1.	My lecturers show great concern on my welfare.	20 (33.3%)	15 (25%)	10 (16.7%)	15 (25%)	Agreed
2.	I do not feel comfortable discussing my challenges with my lecturers.	12 (20%)	10 (16.7%)	21 (35%)	17 (28.3%)	Disagreed
3.	My lecturers usually pay attention and give answers to all of my questions in class.	20 (33.3%)	23 (38.3%)	7 (11.7%)	10 (16.7%)	Agreed
4	My lecturers interact freely with students.	21 (35%)	23 (38.3%)	6 (10%)	10 (16.7%)	Agreed
5	I always feel welcomed around my lecturers.	19 (31.7%)	21 (35%)	14 (23.3%)	6 (10%)	Agreed
6	My lecturer's mood can be predicted.	5 (8.3%)	15 (25%)	19 (31.7%)	21 (35%)	Disagreed
7	I am so scared of my lecturers	10 (16.7%)	6 (10%)	21 (35%)	23 (38.3%)	Disagreed
8	My lecturers are always rude to me	9 (15%)	8 (13.3%)	28 (46.7%)	15 (25%)	Disagreed
9	My lectures do not laugh or make jest of me if I am unable to answer any question	25 (41.7%)	27 (45%)	3 (5%)	5 (8.3%)	Agreed
10	Most of my lecturers know me by my name	20 (33.3%)	13 (21.7%)	17 (28.3%)	10 (16.7%)	Agreed

Source: Field survey, 2024

Item 1 in Table 1 on the analysis of students' perception of students on lecturer-student relationship revealed that, a majority (58.3%) of the students agreed to the fact that the lecturers show great concern on their welfare, while a significant minority (41.7%) of the students did not agree to this. This implies that there is still need for the lecturers to show more concern on the welfare of the students. Item 2 shows that a significant minority (36.7%) of the student do not feel comfortable discussing their challenges with their lecturers, while majority (63.3%) of the students feel comfortable discussing their challenges with their lecturers. Item 3 revealed that a good majority (71.6%) of the students agreed that their lecturers usually pay attention and give answers to all of their questions in class, while a minority (28.4%) of them do not agree to this. This implies that lecturers are successful in attending to the academic needs of the students which is good in promoting their academic integration. Item 4 shows that an

overwhelming majority (73.3%) of the respondents agreed that the lecturers interact freely with them, while a minority (26.7%) of them do not agree to this. Item 5 shows that (66.7%) always feel welcomed around their lecturers, while a significant minority (33.3%) do not. This calls for improvement on the part of the lecturers. Item 6 shows that only a third (33.3%) of the respondents agreed that their lecturers' mood can be predicted, while a large majority (66.7%) of the respondents disagreed. This implies that lecturers may benefit from developing greater self-awareness to recognize and understand their own emotions. Item 7 revealed that a minority (26.7%) of the students claimed to be so scared of their lecturers, while a whooping majority (73.3%) claimed not to be so scared of their lecturers. Item 8 shows that a minority (28.3%) of the students indicated that their lecturers are always rude to them, while a good majority (71.7%) disagreed to this claim. The responses in items 7 and 8 implies that the lecturers are successful in maintaining a cordial relationship with their students. Item 9 shows that a good majority (86.7%) of the students agreed that their lectures do not laugh or make jest of them when they are unable to answer any question in class while an insignificant minority (13.3%) disagreed to this. This indicates that lecturers are effective in managing classroom participation. Item 10 revealed that majority (55%) of the students indicated that most of their lecturers know them by name, a significant minority (45%) disagreed to this. This calls for more effort for lecturers to know the names of their students.

Research question two

1. What is the level of students' academic integration in the Department of Library and Information Science, University of Calabar?

Table 2: Level of Students' Academic Integration (N=60)

S/N	Statement	SA	A	SD	D	Decision
11	I am satisfied with the extent of my intellectual development since enrolling in this university.	35 (58.3%)	21 (35%)	1 (1.7%)	3 (5%)	Agreed
12	I am confident that I made the right decision in choosing to attend this university	18 (30%)	20 (33.3%)	10 (16.7%)	12 (20%)	Agreed
13	I approach every school day with much excitements.	26 (43.3%)	20 (33.3%)	10 (16.7%)	4 (6.7%)	Agreed
14	I am not scared of attending lectures in school as the class is always interesting.	18 (30%)	23 (38.3%)	15 (25%)	4 (6.7%)	Agreed
15	I interact freely with my course mates.	35 (58.3%)	21 (35%)	3 (5%)	1 (1.7%)	Agreed
16	I freely take part in the extra-curricular activities of the school.	15 (25%)	19 (31.7%)	9 (15%)	17 (28.3%)	Agreed
17	Many of my courses this year have been intellectually stimulating.	21 (35%)	19 (31.7%)	11 (18.3%)	9 (15%)	Agreed
18	I always do my assignments and submit it time.	25 (41%)	28 (46.7%)	5 (8.3%)	2 (3.3%)	Agreed
19	I am not afraid of writing any test or exam.	28 (46.7%)	12 (20%)	18 (30%)	2 (3.3%)	Agreed
20	I am a happy and proud student of my department.	41 (68.3%)	18 (30%)	0 (0%)	1 (1.7%)	Agreed

Source: Field survey, 2024

Item 11 in Table 2 on the level of students' academic integration revealed that a whooping majority (93.3%) of the students are satisfied with the extent of their intellectual development since enrolling in the university, while an insignificant minority (6.7%) of the students are not. Item 12 shows that a good majority (63.3%) indicated that they were confident that they made the right decision in choosing to attend the university, while minority (36.7%) of the students disagreed to this. This indicates that a good number of the students came into the department willingly while others did not. This calls on the lecturers to help these minority students realize that they made a right decision. Item 13 revealed that a majority (76.6%) of the students

approach every school day with much excitements, while a minority (23.4%) do not. Item 14 shows that majority (68.3%) of the students are not scared of attending lectures in school as the class is always interesting, while a third minority (31.7%) disagreed to this. Item 13 and 14 indicates a high level of academic integration among the students, but however calls for the adaptation of a more interesting teaching methods by the lecturers. Item 15 shows that a whooping majority (93%) of the students interact freely with their course mates, while an insignificant minority (6.7%) do not. This indicates a high level of social integration among the students which is very encouraging. Item 16 revealed that more than half (56.7%) of the students freely take part in the extra-curricular activities of the school, while a significant minority (43.3%) do not. This implies the concern to encourage the students to appreciate the need to participate in extra-curricular activities for their overall wellness. Item 17 shows that a large majority (66.7%) of the students agreed that many of their courses have been intellectually stimulating, while a significant minority (33.3%) do not. Item 18 shows that a good majority (87.7%) of the students always do their assignments and submit in time, while a minority (12.3%) of them do not. Item 19 revealed that a good majority (66.7%) of the students are not afraid of writing any test or exam, while significant minority (33.3%) of the students do not agree to this. This indicates that a good number of the students still need to develop strong confidence on their intellectual ability. Item 20 shows that a whooping majority (98.3%) of the students agreed that they were a happy and proud student of their department, while an insignificant minority (1.7%) of the students do not. This implies a high level of social integration among the students.

Discussion of Findings

The findings from analyzing research question one on the perception of students on lecturer-student relationship revealed that the students have a positive perception of the lecturer-student relationship in their department. This was revealed as most students agreed to the fact that their lecturers show great concern on their welfare and as such they feel comfortable discussing their challenges with the lecturers. The findings also revealed that most students agreed that the lecturers usually pay attention and give answers to all of their questions in class, interact freely with them, and make the students feel welcomed around them. The findings also revealed that majority of the students disagreed that their lecturers' mood could not be predicted. The students still however indicated that they were not scared of their lecturers, as they were not always rude to them, and that their lecturers do not laugh or make jest of them when they were unable to answer any question in class. Most of the students also indicated that their lecturers know them by name.

This finding is in tandem with Kim (2021), who expounded that the basic qualities that promotes a positive relationship between lectures and students include a good communication style, mutual respect, a positive and patient attitude, student equality, and timely praise. This is because the teachers who possess these qualities in good measure are more likely to become the student's 'favourite'. This study is also in line with Wentzel (2003), who opined that a friendly relationship between teachers and students could encourage learning, academic performance and achievement of students. This is true of the fact that a healthy relationship between the lecturers and students can positively influence students' academic, personal and social integration in the school environment.

The study corroborates the postulation by Emeka (2015) on the importance of lecturers knowing their students' names, as such students would become more academically encapsulated with a sense of endearment to those lecturers. The findings of this study are in line with Mamiseishvili (2012) who posited that when lecturers provide academic counselling services such as helping students in selecting courses, choosing a major, and utilizing opportunities like study abroad, summer schools and extracurricular activities to students, they tend to improve in their academic persistence and integration. The exposition of Egbe and Enidiok (2020) also lent credence to this study, as they stated that a commitment on the part of lecturers can foster respect and other cultural values could equally lead to students' utilization of library resources and consequently their academic integration.

The findings from analyzing research question two on the level of students' academic integration revealed that there is a high level of academic integration among the students. This was revealed as most students agreed to the fact they were satisfied with the extent of their intellectual development since enrolling in the university, confident that they made the right decision in choosing to attend the university, approached every school day with much excitements, not scared of attending lectures in school as the class is always interesting, interact freely with their course mates, having most courses that are intellectually stimulating, always doing assignments and submitting in time, not being afraid of writing any test or exam, and that they were happy and proud students of their Department. They however have a majority of them who do not freely take part in the extra-curricular activities of the school.

The findings of this study corroborate that of Apeh and Dagwa (2019) who posited that the quality of the lecturer-student relationship can be connected to the students' enthusiasm to study. The findings of this study is also in tandem with Lau (2003), who opined that a constructive and close interactions between the students and their lecturers can facilitate students' academic performance, educational experiences and greater academic and personal development. The study is also in tandem with the assertion of Boateng (2012), that one of the

factors that can predict effective teaching is the social relations established between the lecturer and students, as lecturers' contact with students in and out of the classroom is very important in students' motivation which helps the students to respond to an increasing complex global environment.

Conclusion/Recommendations:

This study was conducted to investigate the lecturer-student symbiotic relationship and students' academic integration among the University of Calabar library and information science students. The finding of this study revealed that there is a positive perception of the lecturer-student relationship in the Department of library and information science, University of Calabar. The findings also reveal that there is a high level of academic integration among the students of the Department of library and information science, University of Calabar.
Based on these findings the researchers recommend as follows;

1. That the lecturers should maintain and solidify their symbiotic relationship with the students since it has been revealed that this relationship facilitates improvements on the academic integration of the students.
2. In view of the significant positive relationship between lecturer-student symbiotic relationship and students' academic integration, it is important for the University administrators to present opportunities for informal interaction with lecturers beyond the walls of the classroom to improve their social and academic integration.

References

Aloysius, D. A. & Torosco, E. R. (2022). Library usage statistics (2018-2020): A prerequisite for evaluating information service delivery in Nyong Essien Library, University of Uyo, Nigeria. *Library Philosophy and Practice,* 1-19.

Apeh, H. A. & Dagwa, A. I. (2019). Influence of lecturer-students' relationship on academic and social integration of students in University of Abuja, Nigeria. *UNIZIK Journal of Educational Management and Policy,* 3(1).

Bin-Abdulrahman, K. A. (2007). Students' views on student-teacher relationship: A questionnaire-based study. *Journal of Family & Community Medicine*, 14(2), 81–87.

Boateng William (2012). A sociological analysis of student-lecturer interaction in the wake of contemporary university dynamism. *International Journal of Applied Sociology*, 2(3), 25–29.

Boynton, M. A., & Boynton, S. S. (2005). Respectful relationships: Power, punishment, and positive solutions for better student behaviour. Boys Town Press.

Brinkworth, M. E., McIntyre, J. Juraschek, A. D. & Gehlbach, H. (2018). Teacher-student relationships: The positives and negatives of assessing both perspectives. *Journal of Applied Developmental Psychology*, 55(1), 24–38.

Egbe, I. M. & Enidiok, M. S. (2020). Staff development programme and productivity of information professionals in Nigeria for national integration and development. *Multi-Disciplinary Journal of Research and Development Perspectives (MJRDP)*. 9(1), 47-56.

Emeka, N. (2015). Lecturer/ students relationship and student academic performance: a study of Kogi State University. *Global Journal of Applied, Management and Social Sciences (GOJAMSS)*,10(1), 7–18.

Enidiok, M. S., Ogunjimi, B. E., Omoniyi, M. O. & Mkpufin, C. J. (2024). Perception of Library and information science students on the relevance of entrepreneurship education. *International Journal of Contemporary Social Science Education (IJCSSE),* 5(2), 131-138.

Enidiok, M. S., Richard, E. O., Ama-Abasi, R. D. & Omoniyi, M. O. (2024). School library environment and Utilization of library resources in selected schools within Calabar Municipality, Cross River State. *International Journal of Contemporary Social Science Education (IJCSSE),* 5(2), 58-66.

Gunuc, S. (2014). The Relationships between student engagement and their academic achievement. *International Journal on New Trends in Education and their Implications*, 5(4), 216 – 231.

Kim, J. (2021). The influence of teacher-student relationships on academic performance: A case study of secondary schools in Lasbela district. *International Journal of Education and Research*, 9(2), 234-245.

Krstic, K. (2015). Attachment in the student-teacher relationship as a factor of school achievement. *Teaching Innovations*, 28(3), 167 – 188.

Lau, L. K. (2003). Institutional factors affecting student retention. *Education*, 124(1), 126-136.

Mamiseishvili, K. (2012). Academic and social integration and persistence of international students at US two-year institutions. Comm. *College J. Res. Pract,* 36, 15–27.

Oduh, W. A. & Agboola, J. O. (2019). Lecturer-Student Relationship and its influence on students' academic performance among Benson Idahosa University, Benin City, Edo State, Nigeria. *The International Journal of Humanities & Social Studies,* 7(12), 126-166.

Rimm-Kaufman, S. E., & Sandilos, L. E. (2012). Improving students' relationships with teachers for enhancing academic achievement: A meta-analytic review. *Review of educational research*, 82(2), 163-206.

Roorda, D. L., Jak, S., Zee, M., Oort, F. J. & Koomen, H. M. Y. (2017). Affective teacher-student relationships and students' engagement and achievement: A meta-analytic update and test of the mediating role of engagement. *School Psych Rev*, 46(3), 239–261.

Tinto, V. (2015). Student Success Does Not Happen by Accident. Keynote address at the European First-Year Experience 2015 Conference. Bergen, Norway. Available online at: http://www.uib.no/en/efye_2015/78527/professor-emeritus-vincent-tinto.

Walters, Y. B. & Soyibo, K. (1998). An Analysis of High School Students' Performance on Five Integrated Science Process Skills. *Research in Science & Technical Education*, 19(2), 133 – 145.

Wentzel, K. R. (2003). Sociometric status and adjustment in middle school: A longitudinal study. *The Journal of Early Adolescence,* 23(1), 5-6.

Wirt, L. G. & Jaeger, A. J. (2014). Seeking to understand faculty-student interaction at community colleges. *Commun. Coll. J. Res. Pract*, 38, 980–994.