Investigation of Research on Exclusion Policy

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Abstract. Universities exclude a large number of students into our society. However, there is little research on these students after they have left universities. This study is an effort to fill the vacancy with two objectives. First objective is to recommend interdisciplinary research among three streams of research: exclusion in primary and secondary education, exclusion in higher education, and social exclusion. Second objective is to bring a better understanding of excluded students through analyzing SAT and high school GPA scores. This study performed a descriptive analysis of 5364 excluded students and 16508 graduated students. The first finding of this study revealed that the majority (68.36%) of excluded students have an SAT score of 901 – 1100. The finding raised the questions for future studies. Why are we failing more students with SAT scores between 901-1100? What are the distinguished characteristics of these students contribute to academic failure? What can we do about it? The second finding shows that 43.12% of all excluded students have a high school GPA of 2.75 - 4.00. These students were relatively successful in high school, but failed terribly in college. According to Tinto’s integration theory, retention rate is determined by how well students integrated into school environment socially and academically (Tinto & Cullen, 1973; Wolniak, Mayhew, & Engberg, 2012). The future studies on this group of students will be valuable in understanding the transition process from high school to college.

Keywords: academic policy; exclusion; higher education; mental health

1. Introduction
The idea of academic exclusion in higher education is to have students sit out, evaluate their academic difficulties, sort out personal problems, take steps to make corrections, return to school ready and motivated to achieve graduation. This objective is contradicted by the fact that only 12% of excluded students eventually graduated (Howard, Borland, Johnson, & Baker, 2001). Academic exclusion policy was discredited for protecting academic quality based on single measurement – grade point average (GPA), leaving students to their own means to rectify academic dilemmas, and failing to enhance students’ progress from exclusion toward graduation (Howard et al., 2001).
In the following sections, we review three streams of research to bring interdisciplinary approach into exclusion research. We analyze SAT and high school GPA scores of excluded students and define a target group of subjects for future exclusion research.

2. Literature Review
2.1 Academic Exclusion Policies
Exclusion or expulsion in primary and secondary education is one of the most common disciplinary measures for dealing with problem behaviors. The research indicates that despite its frequent use, exclusion is not effective on modifying problem behaviors (Bock, Tapscott, & Savner, 1998). Exclusion is associated with high dropout rates (DeRidder, 1990). Evidence suggests that exclusion may accelerate students’ progress on a path toward delinquency. Almost 95 percent of youth serving time in correctional institutions have been expelled from school (Spencer, 1998).

In primary and secondary education, an exclusion is up to ten school days. Expulsions can be between 80 school days and one year (“Students & Schools”, n.d.). Since all 50 states in the United States have extended the right to a public education to individuals within a certain age range, the states cannot take the right away without a due process of notice and a hearing. Students who are expelled from primary and secondary schools typically are forced to attend class at an alternate location.

In higher education, exclusion policies vary among universities. Brawner and others surveyed the academic policies of nine American universities and revealed a wide range of variation among academic policies. Even within the same university, academic policies change over time (Brawner, Frillman, & Ohland, 2010). In higher education, the exclusion period varies from one semester to several years. Since higher education is a privilege and not a right protected by the US constitution, due process is not required for exclusion. An exclusion decision is based on GPA. A student is allowed no more than one approved appeal by the Academic Standing Committee or Dean of his/her college (Academic Standing Policy, n.d.). For an example of Georgia Southern University (GSU), the academic policy categorizes students with the following academic standings:

- Good Standing
- Warning 1
- Probation 1
- Exclusion 1: 1-year exclusion
- Warning 2
- Probation 2
- Exclusion 2: 5-year exclusion

Students with a GPA below 2.0 are placed on warning. Students failing to raise their GPA above 2.0 during a warning period are placed on probation. Students failing to raise their GPA above 2.0 during a probation period are given
exclusions. The first exclusion is one year and second exclusion is five years (Academic Standing Policy, n.d.).

2.2 What kind of students are being excluded

In primary and secondary education, excluded or expelled students possess undesirable behaviors that threaten the safety of others, damage properties, or disrupt educational instruction (Haynes, 2005). A survey shows that the composition of expelled students is 50% for physical violence, 19% for disruption, 4% for verbal abuse, 4% for threatening with a weapon, 4% for self-harm, and 19% for others. 88% of expelled students were male and 12% were female (Gross & Mcchrystal, 2001).

In higher education, a study shows that 17% of enrolled students were excluded at some time during their university attendance. 68% excluded are male and 32% are female (Wisconsin University, 1973). In most cases, less than 2.0 GPA is the key identifier for exclusion in higher education.

2.3 Factors associated with academic failure

Academic failure may be a result of self-withdraw from a college or a result of a forced exclusion. Numerous studies searched for the factors associated with academic failure (Hanushek, 1996; Kinshuk & McNab, 2006; McKenzie & Schweitzer, 2001). The factors identified are ranging from individual factors to social factors. Student’s cognitive style, anxiety, and loneliness were examined in relation to academic failure (McKenzie & Schweitzer, 2001; Ross, Drysdale, & Schulz, 2001). Instructors’ behavior, teaching methods, subject matter, and student-teacher interaction were related to academic performance (Aysan, Tanrıöğen, & Tanrıöğen, 1996; Mayer & Patriarca, 2007). Family demographic characteristics were observed to have impact on academic performance (Demeulemeester & Rochat, 1995; McKenzie & Schweitzer, 2001). A "socio-cultural" learning environment was found to have influence on performance of African American students, especially female African American students (Aysan et al., 1996; Seay, 2004).

Out of all these factors, SAT score and high school GPA are the two most observed influential factors which have been confirmed to have strong correlation with academic performance (Howard et al., 2001; Hudson, 1989; Noble & Sawyer, 2002). This study analyzes SAT and high school GPA scores of excluded students and defines a target group of subjects for future exclusion research.

2.4 Research subjects – students on probation versus students on exclusion

Universities exclude a large number of students into our society. As participation in higher education increased from 12 million enrollment in 1980 to 21 million in 2010, the number of excluded students is increasing respectively (“Higher Education”, 2013). Despite the large number of excluded students, there is little research about these students after they have been excluded and left universities.
In previous research projects, freshmen and students on probation were frequently used as research subjects to identify factors associated with academic failure (Aysan et al., 1996; Demeulemeester & Rochat, 1995) or to evaluate prevention programs (Brotherton, 2001; Kadar, 2001; Raymondo, 2003). Understandably, it was convenient to sample and survey students while they were enrolled. However, we may have missed the target by surveying enrolled students instead of excluded students. Moreover, investigating and understanding the life after exclusion has never been on research agenda.

2.5 Social exclusion
Social exclusion is defined as the process in which individuals or entire communities of people are systematically blocked from rights, opportunities and resources (e.g. housing, employment, healthcare, civic engagement, democratic participation and due process) that are normally available to members of society (Social exclusion, 2014; Berry, Gerry, Hayward, & Chandler, 2010). Social exclusion is tied with various social, economic, legal, and health issues (Blyth & Milner, 1994). One type of exclusion extensively investigated is unemployment. Gallie and others described a vicious circle in which unemployment heightens social isolation which in turn creates financial deprivation and psychological distress which further diminishes the chance of employment (Gallie, 1999; Gallie, Paugam, & Jacobs, 2003). Studies in sociology also claim that social exclusion is closely related to mental problems (Berry et al., 2010; Parker & Ford, 2013; Specht, 2013; Wright, & Stickley, 2012).

The situation of being fired from a job shares many parallels with the situation of being excluded from a college where a person has to face the failure as well as the exclusion from a community. Thus, research issues in social exclusion can be brought into research of exclusion in higher education.

3. Objectives of This Study
There are two objectives of this research. First, this study recognizes the value of interdisciplinary research and proposes to borrow research ideas from the fields of sociology, primary and secondary education into the field of higher education. Secondly, this study brings a better understanding of excluded students by analyzing SAT and high school GPA scores. Based on the analysis, this study proposes using a target group of excluded students as research subjects for future exclusion research.

4. Data
Student records are obtained from Georgia Southern University database and grouped into two groups: (1) exclusion group where all students received at least one exclusion during 2000-2014, and (2) graduated groups where all students received at least one degree during 1983-2014. After the data were extracted and formulated into the groups, the following records were removed from each group.

1. Removed all students who do not have SAT scores.
2. Removed all students who do not have high school GPA scores.
3. Removed all students in graduate or post graduate programs.
4. Removed all students in undergraduate transfer programs of Georgia Institute of Technology.

Table 1: General Description of Each Group

<table>
<thead>
<tr>
<th>Group Name</th>
<th>Number of records</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exclusion</td>
<td>5364</td>
<td>3465</td>
<td>1899</td>
</tr>
<tr>
<td>Graduated</td>
<td>16508</td>
<td>7669</td>
<td>8838</td>
</tr>
</tbody>
</table>

5. Results
5.1 SAT scores
Figure 1 and Table 2 revealed an interesting fact. There are seven intervals in the frequency distribution histogram. In 901-1000 and 1001-1100 intervals, exclusion group has higher probability distribution of (35.25% and 33.11%) than graduated group (28.98% and 32.75%). This phenomenon raises two important issues. First, students with SAT scores 901-1100 have higher probability to fail academically compared with students in graduated group. Secondly, students with SAT scores of 901-1100 accounted for over 68.36% of all excluded students. If we target our research on this group and find a way to help 68.36% of excluded students, we may efficiently and effectively increase our retention rate.

In the existing literature, many researchers have found significant relationship between academic performance and SAT scores (Howard et al., 2001; Hudson, 1989; Noble & Sawyer, 2002). To progress our research based on the existing research, we can hold SAT score as a constant by targeting our research on the students with SAT scores of 901-1100 and looking for other influential factors which contributed to academic failure. We can ask the following questions in future studies:

1. What are the distinguished characteristics of these students?
2. Do any of these distinguished characteristics contribute to academic failure?
3. Why are we failing more students with SAT scores between 901-1100?
4. What can we do to tailor our course design and teaching method for these students?

Table 2: SAT comparison between exclusion group and graduated group

<table>
<thead>
<tr>
<th>Intervals</th>
<th>Graduated Frequency</th>
<th>Graduated Probability</th>
<th>Excluded Frequency</th>
<th>Excluded Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-800</td>
<td>431</td>
<td>2.61%</td>
<td>178</td>
<td>3.32%</td>
</tr>
<tr>
<td>801-900</td>
<td>1718</td>
<td>10.41%</td>
<td>633</td>
<td>11.80%</td>
</tr>
<tr>
<td>901-1000</td>
<td>4784</td>
<td>28.98%</td>
<td>1891</td>
<td>35.25%</td>
</tr>
<tr>
<td>1001-1100</td>
<td>5407</td>
<td>32.75%</td>
<td>1776</td>
<td>33.11%</td>
</tr>
<tr>
<td>1101-1200</td>
<td>2759</td>
<td>16.71%</td>
<td>653</td>
<td>12.17%</td>
</tr>
<tr>
<td>1201-1300</td>
<td>1100</td>
<td>6.66%</td>
<td>187</td>
<td>3.49%</td>
</tr>
<tr>
<td>&gt;1300</td>
<td>309</td>
<td>1.87%</td>
<td>46</td>
<td>0.86%</td>
</tr>
<tr>
<td>Total</td>
<td>16508</td>
<td></td>
<td>5364</td>
<td></td>
</tr>
</tbody>
</table>
5.2 High school GPA

Frequency distribution for excluded group in Figure 2 shows a linear function between high school GPA and probability of being excluded. However, the frequency distribution for the graduated group is a normal distribution. For exclusion group, the high school GPA is correlated negatively with probability of being excluded, i.e. the higher high school GPA, the lower probability of being excluded. This result validates previous research where high school GPA was used to predict academic failure (Howard et al., 2001; Hudson, 1989; Noble & Sawyer, 2002). However, high school GPA is not correlated with probability of graduation because its frequency distribution is a normal distribution, thus high school GPA shall not be used to predict academic success in term of graduation.
Table 3: High school GPA comparison between exclusion group and graduated group

<table>
<thead>
<tr>
<th>Intervals</th>
<th>Graduated Frequency</th>
<th>Graduated %</th>
<th>Excluded Frequency</th>
<th>Excluded %</th>
<th>Cumulated %</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.75-4.00</td>
<td>1561</td>
<td>9.46%</td>
<td>33</td>
<td>0.62%</td>
<td>0.62%</td>
</tr>
<tr>
<td>3.50-3.75</td>
<td>1947</td>
<td>11.79%</td>
<td>137</td>
<td>2.55%</td>
<td>3.17%</td>
</tr>
<tr>
<td>3.25-3.50</td>
<td>2897</td>
<td>17.55%</td>
<td>352</td>
<td>6.56%</td>
<td>9.73%</td>
</tr>
<tr>
<td>3.00-3.25</td>
<td>3162</td>
<td>19.15%</td>
<td>707</td>
<td>13.18%</td>
<td>22.91%</td>
</tr>
<tr>
<td>2.75-3.00</td>
<td>3020</td>
<td>18.29%</td>
<td>1084</td>
<td>20.21%</td>
<td>43.12%</td>
</tr>
<tr>
<td>2.50-2.75</td>
<td>2012</td>
<td>12.19%</td>
<td>1259</td>
<td>23.47%</td>
<td>66.59%</td>
</tr>
<tr>
<td>0-2.50</td>
<td>1909</td>
<td>11.56%</td>
<td>1792</td>
<td>33.41%</td>
<td>100.00%</td>
</tr>
<tr>
<td>Total</td>
<td>16508</td>
<td></td>
<td>5364</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From the frequency distribution data in Table 3, we can see that over 43.12% of excluded students have a 2.75-4.00 high school GPA. These students were relatively successful in high school, but failed terribly in college. Vince Tinto proposed an integration theory to explain college dropouts. He claimed that academic success is determined by successful transition to a new environment. The transition consists of two separate integration processes – integration into social environment and integration into academic environment (Pascarella & Terenzini, 1983; Tinto & Cullen, 1973; Wolniak et al., 2012). Transition research on this group of students with 2.75-4.0 high school GPA will be valuable in understanding the transition process and identifying influential factors. In future transition research, questionnaires should be sent to this group of students instead of a random sample of students. The questions regarding the transition process of these students are:

1. What are key differences between college and high school that trigger the failure?
2. What are the difficulties for these students to transit from high school to college?
3. What are the difficulties for these students to integrate into social and academic environments?
4. What can we do to facilitate the transition and integration processes?

6. Discussion
6.1 Interdisciplinary research: research ideas from primary and secondary education

What happened to the excluded students? Did they transfer to other schools? Did they give up college and start working? Did exclusion lead them to change their attitude and behaviors? We simply do not know. There is little published research on students who were excluded from universities. However, in the field of primary and secondary education, the impact of exclusion policy on excluded students was investigated and the result indicated that exclusion has little effect on modifying undesirable behaviors (Bock et al., 1998). Exclusion is observed to be associated with high dropout rates and may cause students to go down the path toward delinquency (DeRidder, 1990). These research strategies can transcend the scope of primary and secondary education into higher...
education. Similar research can be conducted in the field of higher education by posing the following questions:
1. What is the effect of exclusion on college students?
2. Are there any behavioral changes due to exclusion?
3. What are paths taken by excluded college students?
4. What is the percentage of excluded students who transferred to other colleges?
5. What is the percentage of excluded students who gave up on college education and started working?
6. What is the percentage of excluded students who are stuck and have no plan?

6.2 Interdisciplinary research: research ideas from sociology
Research in sociology established a sequence of reaction from unemployment to social isolation, to poverty, to mental problems, and back to long-term employment. Unemployment may create a vicious downward spiral of destruction of human lives (Gallie, 1999; Gallie et al., 2003). Similar to unemployment, excluded students separate from their community, lose financial aid, and face the rejection alone. Being “NEET” (not in employment, education or training) presents a major risk for young people of becoming socially excluded (Yates & Payne, 2006). Studies have shown that social exclusion is closely related to mental problems (Berry et al., 2010; Parker & Ford, 2013; Specht, 2013; Wright, & Stickley, 2012). Research on social exclusion can be brought into research of exclusion in higher education. To assess the consequence of exclusion, we can ask the following questions:
1. Are excluded students isolated after exclusion?
2. What kind of support systems do excluded students depend on?
3. Is it necessary for universities to be connected with excluded students?
4. Does exclusion put students at the risk of mental illness?

6.3 Research targets a special group
State governments used to fund universities based on enrollment. Recently, 25 states implemented a policy to probate funds based on performance indicators such as time to degree and the number of degrees awarded (Performance-Based Funding, 2014). Starting in 2016, the State of Georgia will fund its universities based graduation rates instead of enrollment (Diamond, 2012).

Universities worldwide invested tremendous amounts of resources to retain students, such as peer mentoring and faculty/student mentoring programs (Terrion & Leonard, 2007; Brotherton, 2001), curriculum development (Taylor, 2005), one-on-one counseling (Kadar, 2001), intrusive advising (Erwin, 1997), freshman workshops or seminars (Raymondo, 2003), special course for students on probation (Royal & Tabor, 2008). However, these intervention programs are designed for freshmen or at risk students in general. This study recommends using excluded students as research subjects instead of freshmen or students on probation. To be specific, future research should target 68.36% of excluded students who have SAT scores of 901-1100 and 43.12% of excluded students who...
have a 2.75-4.00 high school GPA. Once we find out what makes these students tick, then we can increase retention rates in a more efficient and effective way.

7. Conclusion
At Georgia Southern University, 8783 students were given exclusion since 2000, about 20% of freshmen left school at the end of the first year, and less than half of freshmen eventually graduate. The financial costs to individuals, states, and the federal government are tremendous (Grumke, 2011). The intangible costs to the students’ lives are immeasurable (Damast, 2012). Previous research was limited to the research on freshmen and probation students. The vacancy of research on excluded students needs to be addressed. To expedite the research in this field, this study promotes interdisciplinary research and transcends research ideas from primary and secondary education, sociology, mental health into research of exclusion in higher education. This study also provides a set of research questions and research subjects. Due to our limited resources and time, this study is a primary investigation of research on exclusion. Our desire is to get other people on board to solve the problem facing our universities, i.e. to increase graduation rates.

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