Abstract

Choosing a textbook for English as Foreign Language (EFL) courses is an issue both important and complex, involving multiple parts of an organisation. The costs of search, evaluation, and selection are not insignificant but can quickly become sunk in the case where textbooks are cycled from year to year. This paper argues against such a policy and does so on three levels: empirical, theoretical, and practical. We examined two different EFL classes in which one of them used the same textbook over several years whilst the other changed the textbook every year. As a result, we show that annual textbook-cycling is associated with greater intertemporal performance variation and contributes to inefficient institutional environments. We also argue that biennial (or longer) cycles loosen budget constraints for textbook selection, which is preferable from an educator’s perspective.

1. Introduction

The process of selecting a textbook for EFL courses is a salient issue. Processes and methods for selection and evaluation are myriad; indeed, forming a sub-genre of literature in itself. Guides can range from simple illustrative frameworks, to entire books – Cunningsworth (1995) for example. Additionally, the selection process brings with it a range of issues and trade-offs: some economic, some practical, and some
political. Looking as far back as Sheldon (1988), it appears that these issues are not a recent phenomenon and there is little reason to expect they will become less common in the future. There are also studies that suggest EFL educators continue to be dissatisfied with prescribed texts (Rahimpour & Hashemi, 2011). Search costs themselves are also not insignificant and with an increasing breadth of choices this only exacerbates the issue.

Despite these problems, there are cases where it is a matter of policy to use a different text for each cohort that passes through an organisation – one reason for doing so is that it reduces the possibility of intertemporal collusion. We, however, respectfully disagree with such a policy and in this paper aim to present a number of points that advocate for a longer cycle time. We begin firstly with a brief analysis of grades at two organisations whose policies vis-à-vis textbook cycling are dissimilar. We then move on to a logical argument surrounding institutional environments. Our final thrust discusses the issue from a pragmatic perspective.

2. Intertemporal grade variation with alternate text-cycling policies

Some educational providers grant a degree of autonomy to EFL instructors with respect to textbook selection, some are subject to government mandate that involves annual rotation. Both alternatives have potential disadvantages: internalised search costs (and therefore lost potential economies of scale) in the case of the former, frustration on the part of students and teachers for lack of flexibility in the latter (Sheldon, 1988). However, one factor that is a distinct product of textbook-cycling is the increased potential for intertemporal variation between student cohorts.

If we assume for a moment that no two textbooks are perfectly identical, it stands to reason that the performance of a hypothetical group of students would display variances between the two books. Likewise, one would also suspect variances to occur
between cohorts who were given different books. Naturally, in such a case there would be increased noise in the data owing to exogenous factors such as classroom dynamics but this does not necessarily disprove the premise.

Whilst not a controlled experiment, allow us to present a simple analysis of two organisations. The following data were drawn from the final grades of EFL students between 2015 and 2017. Cohorts at ‘Organisation T’ used the same book each year whilst ‘Organisation K’ required a new text for each incoming group. Students at both institutions were taught by the same teacher and the focus of classes was based on speaking/expression. The method of final grade assessment was held constant over the relevant range.

Figure 1 presents the average final grades for the two organisations between 2015 and 2017. The data set for ‘Organisation T’ was scrubbed to remove four students who withdrew during the semester; no students from ‘Organisation K’ withdrew.

*Figure 1 Average final grades*
The averages for the three cohorts at ‘Organisation T’ conform to a relatively narrow band, ranging from a minimum of 68.6% to a maximum of 69.3%. ‘Organisation K’, with its three different books, shows a greater range (minimum = 54.3%, maximum = 86.4%).

Continuing the analysis, we looked at the differences between the data of individual organisations. Referring only to ‘Organisation K’, the null-hypothesis would suggest that the means of the groups are equal such that:

\[ H_0: \mu_1 = \mu_2 = \mu_3 \]

\[ H_1: \mu_1 \neq \mu_2 \neq \mu_3 \]

Should the null-hypothesis be true we would expect the intergroup differences to be equal (or at least close to) the intragroup differences. In other words, if true, changing the book has no impact upon performance. Using a one-way ANOVA we set the critical value at 0.05. Table 1 presents the results for ‘Organisation K’.

*Table 1 Organisation K - Single ANOVA*

Anova: Single Factor

<table>
<thead>
<tr>
<th>Group</th>
<th>Count</th>
<th>Sum</th>
<th>Average</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>81</td>
<td>4396.4</td>
<td>54.3</td>
<td>151.7</td>
</tr>
<tr>
<td>2016</td>
<td>78</td>
<td>6736.9</td>
<td>86.4</td>
<td>72.8</td>
</tr>
<tr>
<td>2017</td>
<td>86</td>
<td>6985.0</td>
<td>81.2</td>
<td>83.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P-value</th>
<th>F crit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>47930.2</td>
<td>2</td>
<td>23965.1</td>
<td>233.90</td>
<td>&lt;0.001</td>
<td>3.03</td>
</tr>
<tr>
<td>Within groups</td>
<td>24795.0</td>
<td>242</td>
<td>102.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>72725.2</td>
<td>244</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
As we see that $F=233.90$ and $F_{\text{crit}}=2.03$ we can dismiss the null hypothesis: the means of the three cohorts are not equal and the differences are not attributable to sampling errors.

For comparative purposes we also conducted a one-way ANOVA for the data drawn from ‘Organisation T’. The results are displayed in Table 2.

Table 2 Organisation T - Single ANOVA

<table>
<thead>
<tr>
<th>Group</th>
<th>Count</th>
<th>Sum</th>
<th>Average</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>68</td>
<td>4710.4</td>
<td>69.3</td>
<td>93.6</td>
</tr>
<tr>
<td>2016</td>
<td>44</td>
<td>3035.4</td>
<td>69.0</td>
<td>97.7</td>
</tr>
<tr>
<td>2017</td>
<td>44</td>
<td>3016.8</td>
<td>68.6</td>
<td>85.1</td>
</tr>
</tbody>
</table>

ANOVA

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>$F$</th>
<th>P-value</th>
<th>$F_{\text{crit}}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>13.33</td>
<td>2</td>
<td>6.7</td>
<td>0.07</td>
<td>0.93</td>
<td>3.06</td>
</tr>
<tr>
<td>Within groups</td>
<td>14129.95</td>
<td>153</td>
<td>92.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>14143.28</td>
<td>155</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Here we find that $F=0.07$ is less than $F_{\text{crit}}=3.06$ and so we cannot reject the null-hypothesis in this case; the differences in the means are statistically insignificant.

Whilst this is only a cursory analysis and far from a perfectly controlled experiment, the results are interesting. Changing the textbook, as in the case of ‘Organisation K’, appears to introduce more variation into the data. ‘Organisation T’ on the other hand, shows comparatively consistent performance over the years. From this
data set we cannot establish exactly how much of the extra variance was caused as a direct result of changing the textbook. However, we can say that—in this case at least—text-cycling is associated with greater variance. This is an important point to consider for education providers since greater performance differentials between years are arguably less favourable from a quality-assurance perspective. As a result, we would suggest that longer cycles are therefore preferable to shorter ones.

3. **Sub-optimal institutional equilibria**

On a more theoretical level, an explicit policy of text-cycling may contribute to the continuation of sub-optimal institutional equilibria by way of associated adverse selections. This argument invokes the theory of institutional economics (IE), which essentially studies the ‘rules of the game’. An institution is defined as a human-devised constraint on behaviour; these can be formal (such as laws and regulations) or informal (such as cultural norms and customs) (North, 2005). The implication of institutional economic theory is that non-market factors are also important determinants of behaviour. One of the more prominent contributions of IE is the work into transaction costs, championed by Williamson (1975, 2000), the essential thrust being that institutional environments are arranged in such a manner as to minimise transaction costs. Yet at the same time IE literature maintains that historical precedent is also important as past actions can influence future ones (Aoki, 2001; Blomström & La Croix, 2006). The problem that this creates is that past actions and habits can be maintained despite being unproductive (Johannessen, 2008), which ultimately allows the continuation of a sub-optimal institutional environment.

Relating to the issue of text-cycling, the aforementioned theoretical components can be aligned as follows: Firstly, people are naturally predisposed to favour institutional structures that minimise transaction costs but this does not necessarily equate to transparency - some institutional environments may allow for, or even
promote, opportunistic behaviour. Secondly, historical precedents and past action structures have a strong influence on future behaviour. Finally, the economic rents that agents can realise can act as incentives to maintain the status quo.

The implications of these points become clearer once one considers some of the adverse selection problems that are sometimes associated with textbook selection. Tsujimoto and Yamasaki (2017), for example, note that there have been large-scale corruption cases regarding publishers and textbook inspectors in Japan. Lewis (1992) also provides several illustrations of opportunistic behaviour vis-à-vis text selection in the United States. Simply put, the utility realised from having one’s book adopted by an organisation vastly exceeds the cost of ‘persuading’ the selector(s) and so long as this holds true there is an incentive to offer inducements – legal or otherwise.

Consider, then, a hypothetical organisation and its internally-governed institutional environment. One of the institutional structures relates to text-cycling, with associated transaction costs including search time, evaluation and selection, and purchasing logistics. Add to this the possibility of adverse selection issues. In the case where text-cycling is conducted as a matter of policy, such costs become sunk at the beginning of each fiscal year whereas a simple revision has the capacity to convert them into fixed costs that can be allocated over a larger student body. Nevertheless, the presence of the aforementioned adverse selections would likely increase the inertia against an institutional realignment – particularly so if selector(s) have power over defining the institutions. One might therefore expect such an institutional environment, sub-optimal as it is, to remain static.

Apropos, we argue that increasing textbook cycle time would lead to cost savings and therefore more efficient institutional structures. Additionally, whilst it does not influence the incentive structure, longer cycles could potentially reduce the frequency of adverse selection problems.
4. **Widening budget constraints**

Our final point centres on the practical issue of costs. Sheldon (1988) notes that one of the difficult compromises that needs to be made is between what is educationally preferable and financially feasible. He goes on to note that ELT books are not considered to be good value. More recently, The Economist (2014) has noted that the growth in the price of textbooks in the United States has significantly exceeded the growth of consumer prices. Furthermore, Rahimpour and Hashemi (2011) state that despite increasing technology, there is still high demand for textbooks. The issue of cost, therefore, does not appear to be diminishing with time – indeed, quite the opposite.

With respect to selection processes, one of the most common alternatives is to simply set a budget and search for an appropriate book within that range. Once again, annual cycling converts these expenditures into sunk costs yet a simple change in policy could widen the budget constraint significantly. If the organisation were to adopt longer cycles, this creates potential for a secondary market where students could recoup a fraction of the cost of purchase. Baas (2015) provides one example where a US university purchases books back from students for approximately 40% of the original price. Whilst students may still not be entirely satisfied with such a return, if we invoke the argument of rationality via the basic competitive model, something is still better than nothing. In an instance such as this, and assuming the individual is rational up to the margin, a hypothetical initial budget of ¥2,000 could be extended as far as ¥3,333 with a 40% buyback rate on a two year cycle (notwithstanding non-transferable online access codes or transaction costs). One could therefore argue that with a longer cycle, the trade-off between the educationally preferable and the financially feasible becomes less tight and this is advantageous.
5. Conclusion

Textbooks are still a vital part of the education system and there is a strong possibility that they will be for many years to come. Nevertheless, the process of selecting a textbook is a complex and important task that brings with it a number of conflicting issues. Some organisations operate a policy of annual textbook cycling, a policy we have argued against in this paper. Through a brief examination of two organisations we found greater intertemporal performance variation among student cohorts where the text was cycled annually. On a theoretical level, we suggested that biennial (or longer) cycles would contribute to more efficient institutional structures, reduce sunk costs, and even potentially reduce the frequency of opportunistic behaviour. Our third line of reasoning was on a practical level: longer cycles allow for secondary markets and this could be beneficial in the sense of widening the budget constraint for textbook purchases. Regardless of stance, however, in our role as educators we all want the best for our students and thus our goals are aligned. Although, from our perspective at least, these goals are better served through longer cycles but we welcome any further discussion on the issue.

6. References


EFLクラスで使用する教科書の
選定サイクルをめぐる一考察

ダガン アンソニー ジョン
ダガン さがの

要約

学校教育という複合的な制度・組織のなかで行われる EFL（外国語としての英語）授業用教科書の選定は、重要かつ複雑な問題をともなう作業である。教科書の検索、評価、選択に費やされるコストは、決して低く見積もり得ないことである。もし教科書を毎年変えることにしたならば、それはすぐに埋没コストになってしまうだろう。そこで本研究では、どのようなサイクルでの教科書選定が適切かを調べるため、数年にわたり同一の教科書を使用する EFLクラスと、毎年教科書を変える EFLクラスを比較し、実証的レベル、理論的レベル、実践的レベルの 3 つのレベルで分析を行った。その結果、毎年教科書を変えた場合、学生の成績が大きく変動し、非効率的な制度環境がもたらされることが判明した。他方、2年間（またはそれ以上）同一の教科書を使用した場合には、教科書選定のための予算制約の問題が緩和されるため、教育的観点からみてもそれが望ましい教科書選択のあり方だと言える。