At the request of the Children's Librarian, a brief review of the Young People's Library shelving process and control desk arrangement was made. For the shelving process, a time-spent survey was made to determine the relative amounts of time spent on the various phases of the operation. A special questionnaire was designed, and the library pages entered their labor time in minutes every day for four weeks. Time averages were computed, a flow analysis made, and process discussion held with the staff. No significant changes were recommended for the process, since it was being performed as well as conditions permit. For the control desk a suggested arrangement called for relocating a portion of the unused periodicals desk on the ground floor. This report describes the studies which were made for the Young People's Library and presents the data and conclusions. (Author/SL)
A REVIEW OF
THE SHELVING PROCESS
IN THE
GLENDALE YOUNG PEOPLE'S LIBRARY

Prepared
for the
Chief Librarian
Library Division
City of Glendale

by
H. C. Applegate
City Manager's Staff

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Introduction

At the request of the Children's Librarian a brief review of the Young People's Library shelving process and control desk arrangement was made.

For the shelving process, a time-spent survey was conducted, a flow analysis was made, and process discussions were held with the working staff. No significant changes are recommended for the shelving operation. The process is performing as well as it can be expected to within the physical constraints of the building design.

For the control desk a suggested arrangement was made, considering only the use of available equipment. The suggested arrangement calls for relocating a portion of the unused periodicals desk on the ground floor. This was subsequently accomplished in conjunction with expansion of the film desk.

This report describes the studies which were made for the Young People's Library and presents the data and conclusions.

Shelving Process Survey

The Young People's Library is located in a separate location on the second floor of Glendale's Central Library building. Charging and discharging of the children's material is however performed at the main loan desk on the ground floor. Reference and reserve functions take place within the Young People's Library. Overdue processing is performed by the circulation staff on the ground floor. A duplicate viz file of the children's reserved material is maintained at the main loan desk, but is only used for checking renewal requests.

Young borrowers carry their material down to the ground floor and are charged in the normal fashion. When they return their material
it is discharged and placed on a separate booktruck at the main desk. At the same time T-cards are removed and fines collected. Damaged books are set aside. When the children's booktruck is full, it is pushed to the rear of the circulation area next to the door of the book elevator which leads to the Young People's Library service area on the floor above. There is a signal bell but no voice communication between these two locations.

Shelving in the Young People's Library is done by pages working staggered shifts, so that normally only one is working at a given time. Usually there are three pages assigned to this duty. When reporting for duty or after a break these pages will first go to the ground floor circulation area and push a children's booktruck into the book elevator. If more than one truck is waiting, the page will arrange with one of the circulation clerks in the area to load the others when signaled by the elevator bell. The page then goes to the second floor, moves the book elevator to the second floor and removes the booktruck. If there is more than one truck, the page lowers the elevator and signals to have it loaded. When loaded, the assisting clerk signals readiness with the bell and the page raises the elevator. At the end of this process, the elevator is left at the ground floor level. The page then moves the booktruck(s) into the children's shelving workroom. This process occurs approximately three times a day.

The shelving workroom is an isolated area at the rear of the Young People's Library at the opposite end from the staff offices and control desk. The room is mostly open area with metal book shelves on the walls. Sections of the shelves are assigned and marked with book categories. Gross sorting is done from the incoming heavily-loaded
booktrucks onto the designated shelves which include areas for repair
etc., as well as shelving groups. A section which has been gross sorted
is then fine sorted onto a fresh booktruck. During the gross or fine
sorting, each book is opened to check for T-cards, missing bookchecks, non-
children's books and to check against the viz file of reserved material.
The actual process varies from page to page, since they work alone and
have developed their own techniques. After a group is fine sorted, the
books are trucked to the public area and shelved. There is no scheduled
shelf reading, but rearrangement and straightening take place during the
shelving as does pickup.

During this study a time-spent survey was made of the shelving
process to determine the relative amounts of time spent on the various
phases of the operation. A special questionnaire was designed (a sample
is attached at the back of this report), and the pages entered their
labor time in minutes every day for four weeks. The results of this
survey are presented in Table 1 on the next page. The average time
in hours per week for each element of the process was calculated and
listed. In addition the percentage each element was of the total time
was determined. The percentages for the Young People's Library compare
very well with those calculated earlier for the Central adult shelving
process.

The circulation in the Young People's Library from February 18
through March 16 averaged 2100 books per week. If we assume this same
volume per week of books was shelved during the March 4 through March 29
time survey period, then the average time for shelving a book was 1.2
minutes per circulated item. This again is very close to the 1.1 minutes
per circulated item determined for the Central Adult Shelving in the
earlier study.
Table 1.

YOUNG PEOPLE'S LIBRARY - SHELVING LABOR HOURS

<table>
<thead>
<tr>
<th>PROCESS ELEMENT</th>
<th>Average hours per week</th>
<th>Percent of total time</th>
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</thead>
<tbody>
<tr>
<td>1. Moving books from circ. to YPL sort area via book elevator including liaison and waiting time.</td>
<td>0.53</td>
<td>1.1</td>
</tr>
<tr>
<td>2. Book gross sorting on to sorting shelves.</td>
<td>5.37</td>
<td>11.1</td>
</tr>
<tr>
<td>3. Checking viz file. Opening books, checking for cards in books etc.</td>
<td>4.37</td>
<td>9.0</td>
</tr>
<tr>
<td>4. Book fine sorting from sorting shelves to truck.</td>
<td>4.45</td>
<td>9.2</td>
</tr>
<tr>
<td>5. Book shelving after fine sort including trucking time. Re-arrangement and straightening.</td>
<td>25.62</td>
<td>52.7</td>
</tr>
<tr>
<td>6. General pickup of books left out throughout Y.P.L.</td>
<td>1.85</td>
<td>3.8</td>
</tr>
<tr>
<td>7. Other duties, errands, time questionnaire, rest periods, miscellaneous etc.</td>
<td>6.37</td>
<td>13.1</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>48.56</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>
After considering the various steps in the shelving flow process and the breakdown of the time spent shelving, it is not recommended that any significant changes be made. The individuals involved are doing quite well and have developed processing techniques to suit their own styles in a responsible manner. A few minor comments follow.

The shelving room is quite cold. It is understood that some form of heater has been ordered and it is recommended that this be expedited because, contrary to popular belief, work does not proceed faster in a cold ambient environment. The midwestern philosopher who wrote, "I'll never understand why the hired man can only cut a cord of wood a day during February when we need it, but manages to cut a cord and a half during May when we don't need it," understood the results if not the basic conservation of energy reason. An individual has a finite amount of energy output. In a cold environment a portion of the energy is diverted from work output to body heat generation, and hence the work output is lower. This is further compounded by related losses, such as longer break times and clothing friction losses.

The sorting for shelving is performed using shelves against the wall. An improvement in efficiency could be achieved by using specially constructed sorting tables of booktruck height; however, for an operation as small as this it could not be an effective cost tradeoff, considering the expense of the table. It is, however, suggested that stools be provided for the fine sorting operation. This is basic industrial engineering: standing takes more energy than sitting and hence diverts work energy away from work output.

In the use of the book elevator, there occasionally arises some difficulty in communications between the ground floor and the second floor.
It is suggested that a simple code for the buzzer would be helpful. For example, three buzzes could mean "please load a truck on the elevator," and one buzz could mean "O.K. it's loaded, take it away." Two buzzes could mean "all finished, thanks" or "that's all there is."