What does it mean to be successful? How should success be measured and defined? These questions were at the heart of the “Models of Embedded Librarianship” project that my colleague, Dave Shumaker, and I began in 2008. Our research culminated in a model for successful programs, which we published in our final research report in 2009 and in an article in *Information Outlook* (Shumaker & Talley, 2010). We knew from the volume of rich data produced by our research, though, that we had only scratched the surface of the practices that lead to successful embedded programs. A year after publication, we went back to our data to perform further analysis. The results provided fresh insight into the success factors for embedded librarians.

**Defining Success**

Library and information services programs have a difficult time at best defining success. When you add the complexity of embedded programs, their task becomes even more problematical. Such programs rarely have their own financial statements and their impact on organizational financial outcomes can be indirect and diffuse. In the first-stage analysis, we decided the criterion for success should be measures of growth in embedded roles and programs, including:

- Growth in the number of professionals providing specialized services to a customer group;
- Increase in the demand for services from the customer group; and
- Development and delivery of new services to the customer group over time.

When we applied these measures to the data, two distinct groups of embedded professionals emerged: one reporting growth in all three areas (the high-growth group, labeled Successful Group) and one reporting no growth in any of the three areas (the no-growth group, labeled Less-Successful Group). A statistical comparison between the two groups’ survey responses produced twenty-two significant differences or characteristics that defined and separated the Successful Group from the Less-Successful Group (p<0.05). The differences centered on four major themes:

- Management support
- Services provided
- Marketing and promotion
Service evaluation

The practices associated with each theme formed the basis for our model of successful embedded programs.

Exploring Other Success Factors

In phase two of our analysis, we focused on two other potential success measures: longevity and self-reported success. We surmised that those in long-lived embedded roles and those with a very high self-assessment would behave differently from their respective shorter-lived and less-highly rated counterparts. We further speculated that the differences would be similar to the characteristics that separate the Successful Group from the Less-Successful Group.

To test these hypotheses, we first defined the factors and then used each to divide our embedded survey population into two constituent groups. We defined the two longevity groups this way:

- Those in programs established 10 or more years ago (Long-lived Group)
- Those in programs established less than 10 years ago (Short-lived Group)

Here's how we defined the two self-reported success groups:

- Those who rated the delivery of embedded information services to their customer groups as “very successful” (High Self-Assessment Group)
- Those who rated the delivery of embedded information services to their customer groups as “successful” or less (Other Self-Assessment Group)

We then reanalyzed the survey data for each measure, applying the same statistical technique (small-sample discrete inference based on mid P-value) used in the original analysis, to look for statistically significant differences between the constituent groups. (Differences cited in the text are statistically significant at the a=0.05 level, unless otherwise noted.)

Practices That Matter

What we found was somewhat surprising. Although the Long-lived Group did behave differently from the Short-lived Group, its characteristics more closely resembled those of the no-growth Less-Successful Group rather than those of either the Successful or High Self-Assessment Groups. In contrast, the High Self-Assessment Group more closely aligned with the Successful Group, even surpassing it in several significant areas.

When we compared characteristic similarities and differences among the three groups, we discovered fresh insight into how to be successful in embedded roles.
**Relationship Building**

Our research revealed that strong reciprocal engagement between the embedded professional and all levels of the customer group was a significant feature of the high-growth Successful Group. Five of the twenty-two practices we identified with the Successful Group related to management support and customer interaction, including:

- Written work agreements with customer groups;
- Customer feedback in performance reviews;
- Customer manager support through integration of the embedded professional into the group; and
- A continuing education requirement related to the customer group’s area of specialization.

Library management also supports and encourages collaborative customer relationships, as suggested by two other characteristics in this category. For instance, library managers were more apt to be the ones giving the go-ahead to initiate specialized services rather than the organization’s executives.

When we analyzed the High Self-Assessment and Long-lived Groups for characteristics related to management support and interaction, we found the High Self-Assessment Group to have the most (both shared and unique), while the Long-lived Group had the fewest.

The High Self-Assessment Group and the Successful Group shared the above characteristics, except written documentation. In addition, the High Self-Assessment Group had several characteristics that pointed to the embedded professionals’ relation-building skills, as well as support from management. These relationship-building characteristics were:

- Meet with customer group management to discuss their information needs;
- Attend the same in-house subject courses as their customers; and
- Receive reimbursement for the costs to attend conferences in the customer group’s field or subject area.

In contrast, the High-Growth Group had only one relationship-building activity associated with it: providing training outside the library.

The High Self-Assessment Group surpassed the Successful Group in characteristics related to customer group interaction and management support, suggesting exceptionally strong ties to the customer group. For instance, the customer group was more likely to have made the first move toward the embedded relationship, not library management, with organizational management more likely to have authorized it. The customer group also provided
the embedded’s performance review, not just feedback to it. Finally, the embedded professional submitted written or verbal reports to customer management.

We found less evidence of these same strong connections between the Long-lived Group and its customer base. At the embedded-professional level, the group had no attributes related to relationship-building activities. At the management support level, its few related attributes primarily took the form of supporting formal education to expand domain knowledge, including a requirement for continuing education (shared with the other two groups) and tuition reimbursement (unlike the other groups). The Long-lived Group’s interactions with customer management appeared more formal and included the following:

- Customer management authorizes the initiation of embedded services in the Long-lived Group.
- Customer management does not support embedded professionals by integrating them into the team.
- Embedded professionals are brought into the customer group at a lower level by a designated liaison or contact within the group.

We found that other attributes related to management support indicate that the Long-lived Group may be more strongly connected with library management than with its customer groups. For example, the group is

- More likely to provide reports to library management;
- More likely to receive a performance review from a library manager and not the customer group; and
- Less likely to have the customer group share any responsibility for performance review.

When we consider these characteristics as a whole, they suggest that the Long-lived Group may have retained traits of a more traditional, library-centric role than either of the two other groups. In contrast, the High-Growth and High Self-Assessment Groups’ management-support and customer-interaction characteristics describe multiple pathways for communication and continuous, reciprocal engagement with the customer group. In the High Self-Assessment Group, the presence of additional characteristics indicates that those who rate the success of their embedded programs the highest are also the most firmly aligned with and supported by their customer groups.

**Work Product, Promotion, and Evaluation**

A complex, value-added work product is a hallmark of embedded roles in the
literature, arising from the collaborative relationships formed between the embedded information professional and the customer group. It is not surprising, then, that five out of six work products associated with the Successful Group and all seven of those associated with the High Self-Assessment Group emphasize expert analysis and the exercise of judgment. Both groups deliver competitive intelligence and in-depth research work. As well, both groups’ services include a training/educational component, while the Successful Group also provides data analysis.

In contrast, the Long-lived Group had only two work products associated with it. Of these, one was shared instructional responsibility, a complex work product it had in common with the Successful Group. Note, though, that this work product reflects a more traditional, librarian’s role: instruction. In addition, we found that the Long-lived Group was significantly less likely to provide a number of high-level services, such as in-depth topical research, evaluating and synthesizing the literature, and data analysis.

The High Self-Assessment Group’s work products stand out from both the Successful and Long-lived Groups in a couple of ways. First, it was the only one of the groups to have no low-level tasks associated with it, such as the document delivery provided by the Successful Group and the ready reference provided by the Long-lived Group. In addition, the High Self-Assessment Group is the only one of the three to include technology-related work among its characteristics. They are:

- Development of structured databases;
- Manipulation of data using analytical software; and
- Management of computer networks and document repositories.

From this clustering of activities around high-value, nontraditional services, we get a clear picture of the transformation possible in an information professional’s role as the focus becomes more customer-centric.

Why was the Long-lived Group not engaged in more high-level work products, especially with more time in which to develop them? We knew that it was not for lack of subject knowledge. This group appeared especially well qualified and was found to actually be more likely than its peers to have a certification in the customer group’s related field, as well as to receive support for continuing education.

We knew it was not for lack of marketing efforts. Although its characteristics included only one marketing activity—presentations at new employee orientations—it was shared by all three groups. This was also the only marketing activity associated with the High Self-Assessment Group, an attestation, perhaps, to its importance. The high-growth Successful Group engages in two additional activities: word of mouth and distribution of print materials. The High Self-Assessment Group’s scanty use of promotional activities may indicate that

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this group has integrated marketing into its day-to-day interactions, as a result of a strong collaborative work relationship, reducing the need for more formal efforts.

We also knew it was not for lack of service evaluation. All three groups use metrics to evaluate and justify continuing their embedded programs. The Long-lived Group had only one attribute related to service evaluation: measuring financial impact on the organization’s bottom line (e.g., cost savings and ROI), but this may be the only metric that matters. It is the only metric shared by all three groups, indicating its importance in garnering support for embedded programs.

**Conclusion**

What does it mean to be successful in an embedded role? To a large extent, success in embedded roles depends on the depth of the engagement between the professionals in the roles and the customer groups and on the professionals’ ability to develop these connections. As the professionals become more deeply embedded in the customer group’s work, their understanding of the work context grows, enabling them to contribute more relevant and valuable work. This is corroborated by the practices associated with both the high-growth Successful Group and the High Self-Assessment Group. These practices describe a close working relationship with the customer group and complex, value-added work products. These characteristics are even more pronounced in the High Self-Assessment group, in which the rewards of a strong customer-centric focus are evident in work that emphasizes expert analysis and deployment of technology.

This appears to be the missing element in the Long-lived Group’s profile. The Long-lived Group in our study does not seem to have cultivated connections with its customer base to the same extent as the Successful and High Self-Assessment Groups. Consequently, it is not associated with the same high level of work. Enduring is admirable, but it may not always be enough to qualify an embedded program as completely successful.

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**References**