The Blaise 5 Champion Instrument Suite

Mark M Pierzchala, MMP Survey Services, LLC, United States

1. Abstract

A suite of ten demonstration and survey instruments will be part of the system distribution of Blaise 5. The suite is called the Champion series because it features polished instruments that show off Blaise 5 capabilities. Six of these are called B5 instruments. They have the names B5Basic, B5Modest, B5Complex, B5Scales, B5PanEuropean, and B5CodeFrame. They each show a specific range of features. For example, the B5Scales instrument shows how various kinds of scale questions can be handled.

There are four realistic survey instruments including NCSPerson, a commuter survey in ten languages. The Trade survey is based on a Dutch financial survey. It shows non-linear section navigation. There is the Census instrument for data collection on mobile devices that is in English and Spanish. Finally, there is the Annual Survey of Industry, a North American survey for use in Canada, the United States, and Mexico.

All of the Champion instruments are multimode. They use a common Resource Database. The Layout Designer of each has eight Layout Sets that work for different modes on different devices. New source code keywords are used such as MODES, ROLES, SPECIALANSWERS, and SPECIALANSWERSETS.

The range of devices that are targeted includes smart phones, tablets, and computers; the devices use native apps or Dep, or their browsers. The Champion.blrd Resource Database can be used out-of-the-box for your institute. You can also use it as a good start to make your own Resource Database. The Champion Instruments form a test suite of instruments and questions that institutes can use in their tests.

2. Description of Instruments

This section briefly describes selected instrument with a few images from each. All images are from the full-size self-administered browser layout. Pierzchala (2016) describes the uses of the Champion instruments as a test bed for an institute’s own standards setting exercise. All Blaise 5 source code, the Resource Database, and other related files will be part of the release.

2.1 B5Basic

The B5Basic instrument demonstrates all the Blaise elementary question types. These include integer, real, string, open, enumerated, set, date, and time question. There are also a few quantity/unit groups. By design, this instrument should easily display correctly on all devices and screens sizes.

![Figure 1. A Basic String Field](image1.png)

What is your full name?
You can type up to 35 characters.

![Figure 2. A Quantity/Unit Pair of Fields](image2.png)

When did you buy your car?
Please enter month and year.

Month
Year
Select a value
2.2 B5Modest

The B5Modest instrument increases the complexity of the questions. For example, Figure 4 shows a lengthier enumerated field that challenges display on smart phones. The question is long, the instruction is long, there are nineteen categories, and some of the choice texts are long. It is also a real survey question. Such a question is called a stressor because it stresses the Blaise 5 system in order to improve it.

Additionally, the B5Modest instrument shows more complex question structures such as name and address collections (Figure 5) and other specify groups (Figure 6).
2.3 B5Complex

The B5Complex instrument features complex groups of questions, usually tables (Figures 7 and 8).

Figure 7. A Job Title and Name Collection

<table>
<thead>
<tr>
<th>Name</th>
<th>Gender</th>
<th>Age</th>
<th>Relationship to you</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Person 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Person 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Person 4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 8. A Battery of Yes/No Questions

<table>
<thead>
<tr>
<th>Reason</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>To earn college credits while still attending high school?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To complete an associates degree?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To prepare for college / increase chance of acceptance to a 4-year college or university?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To earn credits for a bachelor's degree?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>For financial reasons, for example because of the cost of a 4-year school?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To gain further skills or knowledge in your academic or occupational field?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To facilitate a change in your academic or occupational field?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To increase opportunities for promotion, advancement or higher salary?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>For leisure or personal interest?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>For some other reason?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2.4 B5Scales

The B5Scales illustrates how different scales are handled (Figures 9 and 10).

Figure 9. Phrase Completion Scales

<table>
<thead>
<tr>
<th>Likelihood</th>
<th>Not likely</th>
<th>Somewhat likely</th>
<th>Very likely</th>
<th>Not sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>work at this institution most of your career?</td>
<td>Not likely</td>
<td>Somewhat likely</td>
<td>Very likely</td>
<td>Not sure</td>
</tr>
<tr>
<td>conduct research as your main job responsibility?</td>
<td>Not likely</td>
<td>Somewhat likely</td>
<td>Very likely</td>
<td>Not sure</td>
</tr>
<tr>
<td>remain in your field of research specialty?</td>
<td>Not likely</td>
<td>Somewhat likely</td>
<td>Very likely</td>
<td>Not sure</td>
</tr>
<tr>
<td>work in private industry?</td>
<td>Not likely</td>
<td>Somewhat likely</td>
<td>Very likely</td>
<td>Not sure</td>
</tr>
<tr>
<td>work in an academic institution?</td>
<td>Not likely</td>
<td>Somewhat likely</td>
<td>Very likely</td>
<td>Not sure</td>
</tr>
</tbody>
</table>

2.5 NCSPerson

The NCSPerson instrument is a commuter survey. It is programmed in English, Dutch, French, Spanish, Greek, Hebrew, Arabic, Hindi, Chinese, and Japanese. It is meant to be used in fifteen different countries. Figures 11 through 14 show the same set of questions in four languages.

Figure 11. Questions in English

Give a short description of your job with MMP Survey Services, LLC at this location.

What is the distance from home to work?
You can enter a number with up to 1 decimal place.

How do you travel to this work place?
Give up to 4 answers.

- [ ] Bus
- [ ] Tram or trolley
- [ ] Subway/metro, elevated light rail
- [ ] Train, not light rail
- [ ] Car or van pool
- [ ] Motorcycle
- [ ] Bicycle
- [ ] Walk

Unit of measurement?
- [ ] Miles
- [ ] Kilometers
Figure 12. Questions in Chinese

从您家到上班地点有多远？
您可以输入带有一位小数的数字。

您是如何到上班地点的？
可以提供最多4个答案。
- 公交车
- 电车，有轨电车
- 地铁，高架轻轨铁路
- 自行车，脚踏车
- 火车
- 步行

计量单位
- 英里
- 公里

Figure 13. Questions in Hindi

आपके घर से आपके कार्यस्थल का दूरी क्या है?
आप संख्या के साथ 1 दर्जता स्थान तक दर्ज कर सकते हैं?

आप इस काम के स्थान के लिए यात्रा कैसे करते हैं?
- भर
- टक्कर या रास्ता
- मोटरसाइकिल
- टिकट हालि या उड़ान हल्की रेंड
- साइकिल
- रैली
- अपने आप से कार

माप की इकाई
- मील
- किलोमीटर

Figure 14. Questions in Hebrew – a Right-to-Left Language

לעת תיאור כץ של העובדת שלכ אוסב בתיום זה

מה המרתק של המביבת ליגוזה? אשת נשיא לודו, המסieron מעבר אשת steward

 الخيידה של מדריד
- אוטובוס
- אוטובוס
- רכבות המתייחס/ מתור או רכבות ייחוד
- אוטובוס
- רכבות
- מוביל

אניአץ�תנע לוימבך התו��דה הזו
2.6 Census

This instrument is modelled on a census-type questionnaire. Some question structures are very complex. Figure 15 shows a set (code-all-that-apply) question structure where every choice has a specify field attached.

Figure 15. An Elaborated Set-Specify Question Structure

What is Mark Pier’s race or origin? Select one or more boxes, AND enter the specific races or origins.

- White - Enter origin(s), for example, German, Irish, English, Italian, Lebanese, Egyptian, and so on.
- Hispanic, Latino or Spanish origin - Enter origin(s), for example, Mexican or Mexican-American, Puerto Rican, Cuban, Dominican, Salvadoran, Columbian, and so on.
- Black or African Am. - Enter origin(s), for example, African American, Jamaican, Haitian, Nigerian, Ethiopian, Somali, and so on.
- Asian - Enter origin(s), for example, Chinese, Filipino, Asian Indian, Vietnamese, Korean, Japanese, and so on.
- American Indian or Alaska Native - Enter name of enrolled or principal tribe, for example, Navajo Nation, Blackfeet Tribe, Muscogee (Creek) Nation, Mayan, Doyon, Native Village of Barrow Inupiat Traditional Government, and so on.
- Native Hawaiian or Other Pacific Islander - Enter origin(s), for example, Native Hawaiian, Somonoam, Guamanian or Chomorro, Tongan, Fijian, Marshallese, and so on.
- Some other race or origin - Enter race(s) or origin(s).

3. References