# Experience Sampling and Ecological Momentary Assessment with Mobile Phones

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| Program | Description of Program | Operating System | Pricing | Link |
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| **Non-App based for smartphones** | | | | |
| **Survey Signal** | Designed for experience sampling. Uses SMS technology to deliver links to online surveys using ESM sampling protocols. Used in combination with online survey platform such as SurveyMonkey or Qualtrics. US-based company. | Any mobile phone with internet access | $0.10 per SMS signal (100 participants x 6 signals x 7 days = $420) | www.surveysignal.com |
| **Diario** | Designed for daily diaries and experience sampling. Uses SMS technology to deliver links to online surveys, which they design for you. German company. | Smartphone with internet access | 1'600 to 2'400 € for basic package, which would cover most designs | https://www.cloud-solutions.net/en/ |
| **Resident applications for smartphones** | | | | |
| **LifeData** | Designed for experience sampling research. Design your own survey and deliver to iOS and Android devices through their downloadable RealLife Exp app. Good data visualization tools. Formerly iHabit. | iOS Android | $1,950 / year | http://lifedatacorp.com |
| **mEMA** | Mobile Ecological Momentary Assessment; designed for experience sampling research. Sophisticated platform can be integrated | iOS Android | Annual license for $5,000 for 1000 active participants at a time (unlimited) | http://mobileema.com/ |

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| | with commercial sensors (FitBit, UnderArmour, Jawbone) and research sensors (Empatica, Actigraph) | | | |
| **Paco** | Short for Personal Analytics Companion. Tool for designing experiments "Easily create, deploy and monitor experiments that use ESM, fixed-time signaling, or event-contingent signaling." Gives greater control over sampling; designed for ESM; | iOS Android | Free/ Open source | http://www.pacoapp.com/ Android and iOS apps downloadable from the Play and App stores. See also: https://github.com/google/paco/wiki |
| **iForm** | Typically used for business applications not research per se, although has been a popular program for ESM research. | iOS Android | $2,000 for 20 devices; up to $10,000 for 100 devices (not sure how up to date this is) | https://www.iformbuilder.com/ |
| **iSurvey / DroidSurvey** | Survey company that can be easily adapted for experience sampling. New Zealand company based in Wellington. Good support. | iOS Android | $100/month to $650/year (with limit of 3000 surveys/ month) | https://www.isurveysoft.com/ |
| **DataField** | Not specifically designed for ESM, but can be used for this purpose. | iOS Android | 0 to $200/month | https://play.google.com/store/apps/details?id=datafield.src https://itunes.apple.com/us/app/datafield/id470573506?ls=1&mt=8 |
| **Qualtrics** | Typically used for business applications not research per se, although has been used for ESM research. | iOS Android | n/a | http://www.qualtrics.com/ |
| **MetricWire** | North American-based company. Designed for experience sampling / ecological momentary assessment. Design your experiment; participants download an app on their smartphones. | iOS Android | n/a | https://metricwire.com/ |
| **Survey Anyplace** | Not specifically designed for ESM. General multi-platform survey software. | iOS Android | http://surveyanyplace.com/pricing/ | http://surveyanyplace.com/ |
| **QuestionPro** | Mobile survey company for business applications. | iOS Android | | http://www.questionpro.com |

| ESm Capture | Designed specifically for ESM. iOS platforms only. Easy and affordable. | iOS | $250 | http://esmcapture.com/ |
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| SymTrend | Not designed especially for ESM although can be used this way. | iOS | n/a | https://www.symtrend.com/ |
| iDialogPad | In German only, used in numerous labs; currently preparing documentation in English and German. | iOS | User needs apple developer account E$99/year for 100 devices<br><br>E$150 annual charge<br><br>(~ 1.50 Euro per device/year) | Contact Gerhard.Mutz@uni-koeln.de |
| Piel Survey | Participation in Everyday Life survey. | iOS |  | http://pielsurvey.org |
| MovisensXS | Movisens EXperience Sampling. Designed specifically for experience sampling. Intuitive interface for designing own experiments. Good support. European. | Android | https://xs.movisens.com/pricing<br><br>An ESM study (n=100) would require the Gold package at €3,000 | https://xs.movisens.com/ |
| DroidSurvey | Same company as iSurvey. | Android | n/a | https://www.droidsurvey.com/ |
| Emotion Sense | Open source data available to reconfigure program. Contact developers. | Android | Free/ Open source | http://emotionsense.org |
| Funf | For developing Android applications; now part of Google. | Android | Free/ Open source | http://funf.org/ |
| Aware | Android Mobile Context Instrumentation Framework; for developing applications | Android | Free/ Open source | http://www.awareframework.com |
| Purple Robot | Developed at Center for Behavioral Intervention Technologies (CBITs) at Northwestern University. Development package using toolkit. | Android | Free/ Open source | http://tech.cbits.northwestern.edu/purple-robot/<br><br>https://play.google.com/store/apps/details?id=edu.northwestern.cbits.purple_robot_manager |

| SampleMe | Not currently configurable for other people's research. Used mainly by developers to gather emotion data. Uses the Emotion Sense platform. | Android | Free | http://www.cs.bham.ac.uk/~pejovicv/SampleMe/about.php |
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| **Other** | | | | |
| **Experience Sampling Program (ESP)** | Designed for experience sampling. Open source with documentation. Loads onto discontinued palm OS devices. One of the original experience sampling software designed by Lisa and Dan Barrett. No support – just a manual. | Palm Pilot | Free/ Open source | http://www.experience-sampling.org/ |
| **Psymate** | Purpose made PDA developed through the School for Mental Health and Neurosciences, University of Maastricht, The Netherlands. Used extensively in Europe. | Dedicated unit that runs proprietary software | | www.psymate.eu |
| **Texting Services** | | | | |
| **Message Media** | One of many commercial SMS systems that can be used to schedule and deliver text messages with questions. Participants reply to the text with their numeric responses. | n/a<br><br>any mobile phone -does not have to be smartphone | $0.05 to $0.18 per SMS; message-tracking is extra; charges to participants vary. | www.message-media.com There are other companies; needs to have good timing tracking and data export. |
| **Twilio** | Commercial SMS company | | | https://www.twilio.com/ |
| **Poll Everywhere** | Commercial SMS company | | | http://www.polleverywhere.com/ |