

KSU Feedback Service as a Tool for Getting Feedback in Educational Institutions. Perspectives of Use in Government Organizations and Commercial Companies

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Abstract. The paper relates with current and potential using of KSU Feedback service. KSU Feedback allows users to get anonymous feedback from limited group of respondents. Article is compared this service with already existing in the Web similar services and describes potential ability of use KSU Feedback in educational, government organizations and commercial companies how tools to get feedback. Also described set of scenarios of use this service and proposed a number of modifications, which are allows to efficiently use KSU Feedback in specified areas.

Keywords. Feedback, educational process, interrogations, anonymous surveys, software.

Key Terms. ICTTool, Competence, Technology

1 Introduction

1.1 KSU Feedback

The developers have positioned their product as "Tools for anonymous or normal voting on clearly defined criteria for strictly defined set of respondents" (<http://feedback.ksu.ks.ua/>). The main purpose of the service is an anonymous vote and the normal vote (without anonymity i.e. when the estimation is linked to a specific person) only by means of service.

1.2 Short Description of Service

At the current moment there is a huge number of evaluation systems and feedback (we'll speak about them further). KSU Feedback is designed as a tool for feedback student-teacher for usage in high schools and contains some important features that traditional feedback systems do not have [1]:

- students anonymously evaluate the quality of knowledge provided by teacher;
- a teacher sees students' opinions about advantages and disadvantages of his system of teaching.

Accordingly, KSU Feedback has the following characteristics:

- the anonymity of respondents;
- conducting of survey among a certain number of respondents;
- limited access to the polls.

Next, we consider each of these features separately.

1.3 How does it Work / Principle of Functioning

Currently, standard operating procedure of the evaluation of teacher in KSU is as follows:

- The administrator of the resource or the person responsible for conducting the vote, creates a profile with a list of questions for respondents.
- Creates a survey which shows form (or many forms) for this survey and the number of respondents.
- Service generates the appropriate number of unique keys for voting and provides a list of these keys to the specified mailbox. Keys are printed and provided to a group of students to vote.
- Keys are given for interested students (respondents) at random order, then the students click (or type) the links of KSU Feedback service url for voting, enter their key and vote (at this stage, the student can choose survey he wants, or to view the overall results of passed surveys in the form of diagrams).
- Students can vote at the university as well as at home, or anywhere else with access to the Internet.
- After the expiration of the voting period who conducted the survey provides access to survey results to the teacher.

An example of a diagram(Fig.1) is the result of the work of service (a diagram is in the public domain due the permission of the owner and is available at <http://feedback.ksu.ks.ua/predef/reports/quick/966/>)

Note: The results of survey are available only to voters.

1.4 Key Features of the Service

- Anonymity - the keys for voting are unique and generated randomly, without reference to a specific person. Any mechanisms that help to identify the respondents are not used during voting process. The respondent can also see the

overall results of the surveys that he or she has already passed by using the same key for authentication.

- A flexible system of rights that includes:

331_Проектування програмного забезпечення.асист.

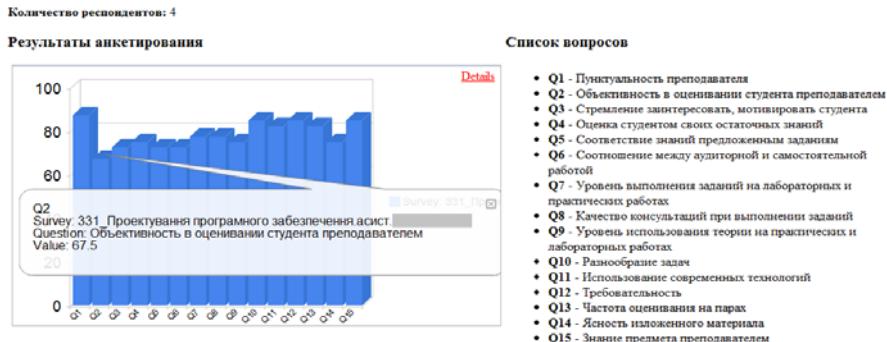


Fig.1. Example of voting results presented by chart.

- Editing of the general rights, the rights of specific users and the rights of user groups.
- Inheritance of rights.
- Exposure of the different rights of access for a folder, the survey - reading, reading — writing, public access (survey is available without authorization).
- Voting among the limited number of respondents by setting the number of generated keys and providing the keys only for a certain range of respondents.
- Graphical presentation of the results [2], [3] of survey (Fig. 2 shows an example), the presentation of summary reports on the general diagram (Fig. 3 shows an example).

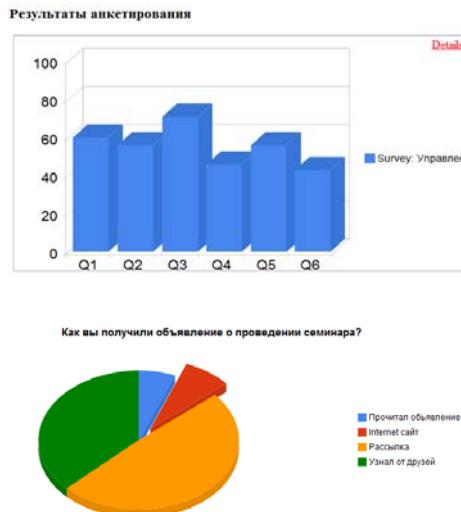


Fig.2. Graphical presentation of the survey results.

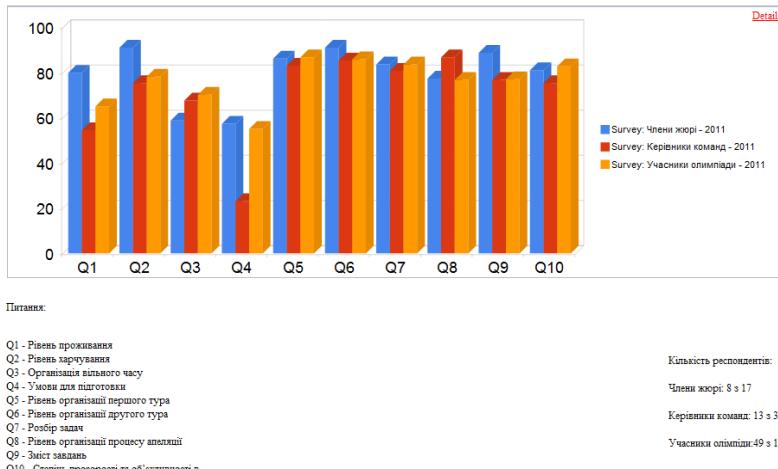


Fig.3. Summary report on the overall chart.

- Availability of API (Application Programming Interface) is a set of functions provided by KSU Feedback for use in exterior applications. Currently API allows the following:
 - Getting the voting results about a particular survey
 - Obtaining of all profiles that are linked to the survey
 - Embedding of a widget of report to a third-party site (using the page of designers of the widgets on the service - <http://feedback.ksu.ks.ua/wiki/widgets/>)

2 Comparison with Existing Services of Surveys. Common and Distinctive Characteristics

1. **Vashopros.ru** (<http://www.vashopros.ru/>)

Common features:

- Questions of several kinds (choice of one correct answer from a number of several answers, multiple choice, choice from the list).
 - Fixing of permissions to view the voting results.
- Differences:
- The ability to place HTML-widget for voting on third-party site - positive feature of this service.
 - Ability to configure the visual design of the survey results: indicators, color, sound, etc.
 - Adding of comments to the survey (limited to 100 comments) - positive feature of this service.
 - Automatic deletion of the survey if it has not been used for 3 months - positive feature of this service.

2. Pollservice.ru (<http://pollservice.ru/>)

Common features:

- Number of created surveys is not limited.
- Multiple Choice. Respondent can choose several answers in surveys with multiple choice.
- Preview of the survey during its creation.
- Placement of link of survey in a blog, forum and social network.

Differences:

- The number of answers on the survey is not limited - negative feature of this service.
- Creation of HTML-poll widget to place on the site - positive feature of this service.
- Free answer. In a survey of free-answer respondent can enter his own answer, if none of the proposed answers is not fit him - positive feature of this service.
- Range of the respondents are not limited by means of the service (voting is free, but with protection from re-election by the tracking of IP-address) - negative feature of this service.

3. Whatiswrongwith.me (<http://whatiswrongwith.me>) - free service to get feedback.

Differences:

- Feedback supports several languages - positive feature of this service.
- The form of Feedback is arbitrary text - negative feature of this service.
- Review (comment) is published on behalf of Anonymous or your real name (by the choice of the respondent) - positive/negative (depends on the purpose of the survey) feature of this service.
- The number of respondents in not limited - negative feature of this service.
- The result of the survey is a list of text reviews - negative feature of this service.
- The results of the survey always are available to all (public) - negative feature of this service.

4. Prepod.org (<http://www.prepod.org>)

Common features:

- Global surveys (choice of one from several options, multiple choice).
- The anonymity of the respondent.
- View of the survey results is possible after the answering.

Differences:

- Ability to write a comment about a particular teacher - positive feature of this service.
- Range of respondents is not limited - negative feature of this service.

5. Sneak (<http://yabeda.net/prepodavateli/>)

Common features:

- View of the results of the survey is possible only after answering the question.

Differences:

- Comment is written in free text form - negative feature of this service.
- You can write a review on this site without a key / password / recording (anonymously), i.e. range of respondents is not restricted - negative feature of this service.

- Has various possibilities for creating events, forums, blogs with video and photo materials - positive feature of this service.
6. Critizise (<http://www.critizise.me/>)
- Common features:
- Ability to provide access to the respondents to the survey.
- Differences:
- Range of respondents is not limited. The voting is carried out by click on the link without a key - negative feature of this service.
 - Anonymity is not supported. Friends and colleagues participate in the survey, they receive the link through twitter or facebook - negative feature of this service.
 - Ability to determine the feedback form (the choice of one option of several, the answer in a text form, the answer in the form of a rating) - positive feature of this service.
 - Integration with social networks - positive feature of this service.
7. Vzyatochnik (<http://vzyatochnik.info/>)
- Common features:
- Anonymity is supported.
- Differences:
- Range of respondents is not limited. There is no protection against re-voting (the same person can express his/her opinion unlimited number of times changing his/her name) - negative feature of this service.
 - You can view the rating of feedback (complaints) - positive feature of this service.
 - Ability to receive feedback in the free form text (stories about the unfair treatment of students in high schools, about the excess of power by the teachers or the administration of universities) - positive feature of this service.
 - Integration with social networks - positive feature of this service.

The results of comparison of KSU Feedback with existing services of survey in the network are follows:

There are many services of surveys, and we gave a brief description of some of them (generally the work of around 20 services was analyzed). Other services that we analyzed are follows:

- Feedback system of the University of Sydney (<http://www.itl.usyd.edu.au/FEEDBACK/orderSF.cfm>).
- QuestionPro (<http://www.questionpro.com>).
- SurveyMonkey (<https://ru.surveymonkey.com/>).
- KwikSurveys (<http://kwiksurveys.com/>).
- BigPulse (<https://www.bigpulse.com/mpm/signin?url=%2Fmpm%2F>).
- Vovici (<http://www.vovici.com>).
- Zoomerang (<http://www.zoomerang.com/>).
- CheckBox (<http://www.checkbox.com>).
- Free Online Surveys (<http://freeonlinesurveys.com/>)
- Inquisite (<http://www.inquisite.com>)
- Survey.io (<http://survey.io>)
- Feedback.com (<http://feedback.com>)

- Concept feedback (<http://www.conceptfeedback.com/>).
- User voice (<http://www.uservoice.com/>).
- Poll Daddy (<http://polldaddy.com/>).

We analyzed all of the services for interviews, as web search did not reveal the full analog of KSU Feedback. KSU Feedback Service is the only service of the considered, which has a number of the following properties:

- The anonymity of the respondents (key vote).
- A certain number of participants in the survey (key vote).
- Limited access to information (access rights) [1].

The combination of these properties allows to speak about the possibility of using this service as a tool for getting anonymous feedback from a limited number of respondents.

KSU Feedback is created and used currently in the Kherson State University as a tool for get feedback in student-teacher relationship; we also consider other possible areas of application. But even the use of tools in the environment for which it was created has variations in the methods and purposes of use (variants of use - the purpose of the survey):

- The student does not see the results of the survey, the survey results are not available publicly - the teacher gets the feedback and has stimuli to development and with the help of the graphical representation of data identifies the points that should be improved by students' opinion (punctuality, knowledge of the subject, use of modern technologies, the availability of material, etc.).
- The student sees the results of the survey - he can compare his evaluation of teaching the subject with an overall assessment.
- Results of the survey are publicly available - this is a kind of "rating" which is made by students about how subjects are teaching at the university.

It is often a very important factor for students that they can influence the learning process and convey their views to the teacher, and this ability is allow the respondent (student) can provide objective information due to the anonymity [4], [5].

In addition, there are several points that need to be taken into account when using KSU Feedback as a tool for get feedback between student and teacher, or between two other parties, where the respondent's anonymity is a major factor (student-teacher, the junior-chief, etc.) [6], [7]:

- The issue of anonymity. As we have pointed out, in some cases, the issue of anonymity for the respondent is the most fundamental. Distrust of the anonymity of the respondents is quite clear - unknown service selected by the leadership, lack of transparency of the work (of the user), lack of understanding of the principles of the network, etc. Therefore, the main factors for receiving objective results during conducting surveys are follows: explanation of the principles of service, voluntary passage of the survey and other factors (freedom of choice of voting place, the free exchange of keys between respondents belonging to one group of the survey). Otherwise, we risk getting feedbacks that do not reflect the real situation.
- Motivation factor. The voluntary participation in the survey is the most important factor for getting real results. One of the solutions is that, during the distribution of

keys the total number of people who want to take part in the survey is counted, and this number of keys is given to group, the members of the group can freely exchange keys. The remaining keys are deleted to prevent fraud. This mechanism allows to determine the relevance of the feedback service. Moreover, it provides more relevant indicators of the results of surveys without "unmotivated" respondents. It can also serve as a source of data for analysis of other possible problems (such as a low level of demand for the keys for voting shows distrust to the mechanism of anonymity of the service and therefore it says about insufficient explanation of the principles of service, or about the lack of understanding of the mechanism of the functioning of network and services in the network).

3 Possible Usage of KSU Feedback

3.1 Universal Service for Surveys / Voting

Firstly, let's consider the KSU Feedback as a hypothetical universal service for conducting surveys to find out all common strong and weak points of the service in order to deal with a variety of tasks. The authors understand that creation of universal service which deals with a diverse range of tasks is too difficult (as it is quite tedious procedure), and often impossible, but this part of the article is needed to understand what service is KSU Feedback, and for what purposes its use is inappropriate.

Thus, a hypothetical universal service for the surveys should have the following generic characteristics:

- It must have a sufficient number of types of issues to deal with universal problems.
- It must has ability to conduct normal / anonymous voting.
- It must have an intuitive interface, sufficient documentation for developers / users.
- It must have an API for working with all the basic data (surveys, questionnaires, questions, etc.) and perform all the basic operations (conducting a survey, obtaining of the results of the survey, creation of surveys / questionnaire / questions).
- The presence of widgets for integration on other sites (survey, view of the results, etc.).
- Ability to analyze surveys by the creators of the polls.
- It must support the export / import data (questions, polls, surveys) and use commonly used data formats.
- It must have the system of automatic notification of the participants of surveys / surveys creators / administrators of the various actions (creating of the survey, the expiration of the survey, the achievement of certain results, for example, 200 people voted and a certain score fell below 5, etc.) by e-mail, messaging within service, SMS, and so on.

Factors that prevent service KSU Feedback from becoming the universal service of surveys:

- Difficulty to identify the user (if the creator of the survey is intended to carry out normal polling).
- The current capabilities of API is not enough.
- It is not enough number of types of questions.
- There is no system (module) of import / export of issues / surveys / members, etc., analysts and analysis.

Also, we should note that during creation the service was not positioned as a universal service for the surveys and wasn't intended to have the means and tools to solve common problems, so we won't consider the KSU Feedback as a universal tool. KSU Feedback fills a target niche: obtaining of anonymous feedback from a specific group of persons. Further we consider just this use of the service.

3.2 KSU Feedback as Service for Conducting Surveys in Specific Areas

Universities, colleges, technical schools. Students have a great role in maintaining quality and enhancing learning due to their engagement in processes of internal quality assurance. Students' evaluation may bring about many potential benefits including opportunities to gather students' feedback on a non-face-to-face basis without fear of sanctions, to help educators understand the concept of institutional educational quality, to encourage teachers to identify areas of improvement and raise standard of teaching quality, to provide areas of research in teaching, to maintain a less intrusive form of classroom appraisal and to provide a broader and more objective base of evaluation in comparison to one which is undertaken by the department chairperson/ director. (Ting, 1998). Therefore it's argued that students have great impact in shaping improvement [8].

As it was mentioned earlier, KSU Feedback was developed and works as a means of feedback 'teacher-student', the service takes into account the specifics of the area [1]. The issue of transparency and accessibility of service is opened. At the time of writing of the article a free registration form was available on the service (<http://feedback.ksu.ks.ua/registration/>).

The advantages of using of the service (accept those already mentioned advantages in the form of teachers receiving feedback) as follows:

- The use of ready-made solution. It's unnecessary to waste time and resources to develop similar service.
- Anonymity for the student is very important factor for them as for respondents of survey.

Currently service is free and can be used to obtain an objective opinion of students about the quality of teaching, and it also can be used as tool for get feedback on other aspects of the institution (work, study, meals, lodging, etc.), so we recommend the management of educational institutions to pay attention on the service for possible future use.

Government institutions. We have identified government institutions as a separate item, as use of KSU Feedback (as well as use of any other private tools) in public institutions is rather difficult because of several reasons:

- inertness of thinking - as misunderstanding of the principles of functioning of services in particular, and the network as a whole, and the reluctance to change anything in an established system;
- lack of interest in obtaining objective feedback and results;
- legislative base - permission to use the service.

Despite all these difficulties while using the KSU Feedback you can get an objective assessment of the work of state employees by people who use their services [9], [10]. One of the main advantages of KSU Feedback for use in the state institutions is anonymity. Possible scenarios of the use of KSU Feedback in the state institutions have much in common with the scenarios used in commercial organizations (only the actors are changed), but specific details of the service in state institutions are not considered in this article because of low awareness of the authors of this specificity (levels of security clearance, the licensing of software to use, etc.).

KSU Feedback has great potential for use in the state institutions, but it is required further investigation of each area of use, taking into account the specifics of the organizations.

Commercial organizations. In comparison with state institutions commercial organizations have more prospects to use KSU Feedback, such as management of commercial companies are interested in obtaining reliable information about the quality of customer service (work with clients, loyalty to the old and new customers are main components of business sectors) [8], [10], [11], [12].

A common scenario of the service may look like this:

1. User1 receives services from User 2.
2. User2 receives a short link for voting online (getting links can be a volunteer - according to the customer, and can be a service by default - printed reference is given together with the main papers, or it can be printed on the back of a receipt, if the service provides a receipt).Anonymous key for voting is built into initial address (example: the source link - <http://feedback.ksu.ks.ua/voting/go/Ad34FdE44>, short link - <http://tinyurl.com/7seyjlv>). Transformation of the initial address into the shortest one serves for the convenience of reference input from the keyboard.
3. After finishing the results of the survey can be used for different purposes.

There are many variations of this scenario, such as evaluation of the service provided by website or by other service, etc. (provision of services by using Internet). In this case, the user can estimate the comfort of provided service (for different services you can generate different types of surveys with different questions such as: convenience, clarity, speed of service, the general impression, etc.), using the generated link to the survey after getting the service, or using the built-survey widget on the side of the client's site (in this case a client means the service provider (customer of service KSU Feedback is owner of the site-resource)).

3.3 Scenarios of use the KSU Feedback in a commercial company.

Scenario 1.

Respondents: customers.

What is evaluated: the level of service after receiving any service.

Objective: To obtain customer satisfaction, an analysis of problems in service (hardware, software, training, etc.).

Scenario 2.

Respondents: the staff of the organization.

What is evaluated: the level of leadership, working conditions, the overall satisfaction of the conditions, etc.

Objective: To assess the level of management (middle management), identification of problems, in tandem with the previous version of usage (survey of customers about staff), it can be a source of data for analysis and argument for the adoption of various personnel decisions.

Key features: anonymity of the employee.

Also we should note that the use of the service for a particular area may have some specific requirements. For example, during creation of a survey it is possible to deny access to the survey results for a certain period of time, if the operator of the service, to which the client can leave a response, has the right to view the survey results (for example to increase the level of customer service). This option is required to prevent deanonymization of the client. Another possible requirement (eg for financial institutions), is the work of service over a secure protocol HTTPS. There are many possible modifications of the service to cover the specifics of a subject area and the main conclusion is the next - the service must be able to customize (settings) to the needs of a particular company. This can be achieved by:

- API service - for serious modifications, or integration with third-party applications the resources for use are necessary.
- The settings of various parameters on the service side - using the interface KSU Feedback configuration of parameters should be flexible.

That is why the service should be able to extend (to have the appropriate architecture), should have the possibility for flexible setting and API for working with master data. In the case when large organizations want to use KSU Feedback, they must have a module or system of analysts and analysis and / or the ability to export data using standard formats (without using the API). In addition, the following improvements are evident for comfortable work with the service using the above script:

- Ability to autogeneration of keys on request. In case when the number of survey participants is unknown (eg, when we do not know the number of served customers for the next week, but we can roughly estimate this).

So, let's form the requirements for working with commercial organizations (let's divide them into local and global according with approximate estimation of time for development / modification of functionality):

Global changes:

- A complete API.
- The ability of flexible customization using interface from the website service (show/hide results of vote after voting for respondents, show the results for user after some period of time (2 hours, 1 day, etc.), voting in the definition of polling days).
- Module (system) of analysts.
- Ability to export data.

Local changes:

- The ability to generate polls with unlimited number of keys or with the ability to add participants to the survey.
- Built-in widget for surveys.
- Types of questions and comments to the question (general survey) by the user's request.
- Ability to identify respondent at his request (the ability to leave contacts for the respondent for further communication and work with the respondent).

4 Conclusions

KSU Feedback is a service designed to deal with specific problems, and we should not consider it as a universal service for conducting surveys. However, the service solves task of anonymous voting among certain range of respondents. As a universal service of surveys, KSU Feedback requires serious modifications, but nevertheless it is suitable for obtaining feedback from the respondents keeping anonymity, and has great potential for use in commercial and government organizations, the basic scenarios of which were considered above.

The usage of the service at educational institutions allows teachers and the leadership of institutions to receive anonymous feedback from interested groups of respondents. Using of the KSU Feedback may pursue such goals as:

- Teachers obtain feedback on the quality of education (which encourages teachers to improve the quality of teaching).
- To obtain ratings of teaching of specific subjects.
- It allows you to create a sense of mutual accountability, student and teacher.
- To obtain feedback on the work of an educational institution as a whole (education, work, residence).
- The feedback analysis rapidly shows where a person needs to improve skills or has to acquire new knowledge.

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